

SYRACUSE JOURNAL OF INTERNATIONAL LAW AND COMMERCE

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INTELLECTUAL INFIDELITY: THE UNITED STATES, INTELLECTUAL PROPERTY LAW, AND THALER V. IANCU

Justin M. Lange

INTRODUCTION

The earliest origin of current patent law, and moreover intellectual property law itself, dates to the Venetian Patent Statute of 1474. "The statute provided that patents might be granted for 'any new and ingenious device, not previously made', provided it was useful." We find here an underlying and recurrent theme that dates to the present day. Works must be new and original, not copied. Yet, we should also note that the earliest origin of patent law speaks nothing to the effect of inventors (or authors), and only speaks of the inventions (or works) themselves.

As time passes, societies and civilizations develop, and their laws evolve. Yet the underlying frameworks upon which changes and claimed improvements can be based upon cannot similarly change as time marches on. The underlying framework must remain the same.

Therefore, the framework of copyright and patent laws in the United States (U.S.) and the United Kingdom (U.K.) are dependent, at least to some extent, upon their predecessors in time, including the Venetian Statute of 1474. They must be, in part, based upon preexisting legal frameworks, and yet also impart changes to or include departures from those preexisting frameworks. Evaluating the American Constitution, specifically Article 1, Section 8, Clause 8, indicates this balance.² The underlying theme from previous law is clearly present, and yet the U.S. Constitution also shows a departure from its prior historical basis.³ Evaluating the United Kingdom's intellectual property (IP) law framework indicates a similar balance.⁴ The U.S. and U.K. frameworks, even from their earliest iterations, show a straddled stance, with a single foot in the past and with a step toward the future.

Yet even the improvements present in the U.S. and U.K. IP law frameworks are not fully protective of all developments and changes

^{1.} Joanna Kostylo, *Commentary on the Venetian Statute of 1474* (2008), available at http://www.copyrighthistory.org/cam/commentary/i_1474/i_1474_com_288200795317.htm l (last visited Mar. 20, 2021).

^{2.} U.S. CONST. art. I, § 8, cl. 8 [hereinafter Intellectual Property Clause].

^{3.} See generally id.

^{4.} See, e.g., the changes between the Licensing of the Press Act of 1662, 14 Car. II c. 33 (Eng.); and, The Copyright, Designs and Patents Act of 1988, c. 48 (Eng.).

since the creation of those prior laws. Both the U.S. and U.K. frameworks speak of "authors" and "inventors" as individuals.⁵ Both frameworks inherently assume that human beings are those responsible for any creative invention or work of authorship.⁶ This assumption in U.S. law thus extends IP law protections only to those inventions and works of authorship created by human beings.⁷ U.K. law, meanwhile and despite this assumption, extends IP law protections to individuals, regardless of the de facto "author" or "inventor" of the work of authorship or invention.⁸ In other words, while the United States only allows IP law protections to be extended to individuals who themselves created a work of authorship or invention, British law allows IP law protections to be extended to individuals who are responsible for the creation of an AI system which itself was subsequently responsible for the creation of a work of authorship or invention.⁹

The practice of U.S. law is thus in direct contrast to U.K. law, and its effect on subsequent extension of IP law protections has been shown to be clearly erroneous in recent decades. Technological innovation and developments have made it possible for machines and computers to mimic, and in some cases even themselves exhibit, the human qualities and characteristics necessary for creation. Artificial Intelligence (AI) systems are particularly indicative of such advancements. AI systems now have the otherwise requisite capabilities to create works of authorship or inventions which would otherwise qualify for U.S. IP law's coveted protections. While U.K. law reflects these technological advancements, U.S. law lags behind its counterpart across the pond.

Even further in favor of updating U.S. law, historical precedent dating back as far as the Venetian Statute of 1474 indicates that the public policy interests and incentives underlying the then-IP law framework were not dependent whatsoever on a human author or inventor

^{5.} See, e.g., Intellectual Property Clause, supra note 2; The Copyright, Designs and Patents Act of 1988, supra note 4.

^{6.} Id

^{7.} Thaler v. Iancu, 1:20-CV-00903 (E.D. Va. filed Sept. 2, 2021) [hereinafter Thaler v. Iancu].

^{8.} The Copyright, Designs and Patents Act of 1988, supra note 4.

^{9.} In the United States, see, e.g., Copyright Act of 1976, 17 U.S.C. § 101; and, Patent Act of 1952, 35 U.S.C. § 100, 101. In the United Kingdom, see, e.g., The Copyright, Designs and Patents Act of 1988, supra note 4, at ch. 1, § 9(3).

^{10.} Jake Frankenfield, Artificial Intelligence (AI), INVESTOPEDIA (Mar. 8, 2021), available at https://www.investopedia.com/terms/a/artificial-intelligence-ai.asp#:~:text=Artificial%20intelligence%20is%20based%20on,include%20mimicking%20 human%20cognitive%20activity (last visited Mar. 7, 2022).

^{11.} Thaler v. Iancu, supra note 7.

requirement.¹² Instead, the underlying interest was that of providing incentive to inventors and authors for future creation and invention, all through the extension of legal protections.¹³ This incentive, under the current U.S. framework, does not extend to creative works and inventions created by AI systems, or for that matter any non-human author or inventor.

It is therefore the argument of this Note that the current framework of copyright and patent law in the United States is simply imprudent. Its requirement of human authorship or creation for "works of authorship" or "inventions" is outdated and inconsistent with public policy interests and the incentives normally provided to authors and inventors under preexisting IP law. Revision to the U.S. framework, bringing it in line with the British legal framework and with the historical public policy interests and incentives long underlying IP law protections, is the appropriate path forward. The United States should spearhead a global approach, as has been shown with previous cohesive efforts in other areas (for example, the Berne Convention). *Thaler v. lancu*, a recently decided case in the U.S. District Court for the Eastern District of Virginia currently pending appeal, provides the perfect opportunity for the U.S. to seize the moment, rise to the occasion, and begin a global march toward a smarter and more logical IP law framework. ¹⁴

In *Thaler v. Iancu*, Mr. Stephen Thaler sued Mr. Andrei Iancu, in Mr. Iancu's position as under Secretary of Commerce for Intellectual Property and as Director of the United States Patent and Trademark Office under the Trump Administration.¹⁵ Mr. Iancu has since left office, upon the transfer of power from the Trump Administration to the then-incoming Biden Administration.¹⁶ However, the underlying facts behind this case remain the same, and are this: Mr. Thaler is the creator/inventor of an AI system known as "DABUS." "DABUS" itself, through its own doing and using its AI capacities and abilities, created material and

^{12.} Kostylo, supra note 1.

^{13.} See, e.g., Intellectual Property Clause, supra note 2.

^{14.} Thaler v. lancu, supra note 7.

⁵ *Id*

^{16.} Scott Graham, Andrei Iancu Formally Bids Farewell to USPTO, LAW.COM (Jan. 19, 2021, 4:24 PM), available at https://www.law.com/nationallawjournal/2021/01/19/andrei-iancu-formally-bids-farewell-to-

uspto/?slreturn=20210221181003#:~:text=U.S.%20Patent%20and%20Trademark%20Offic e%20Director%20Andrei%20Iancu%20has%20made,administration%20transitions%20to%20Joe%20Biden.&text=He%20then%20concluded%20from%20a,team%20in%20the%2019 36%20Olympics (last visited Mar. 4, 2022).

^{17.} Thaler v. lancu, supra note 7.

subject matter which was then submitted by Mr. Thaler to the U.S. Patent and Trademark Office (USPTO). Importantly, "these applications named DABUS as the inventor and Plaintiff [Mr. Thaler] as the applicant and prospective owner of any granted patents." As a result, "[d]efendants, in a final agency action, denied both patent applications on the basis that they failed to disclose a natural person who invented the subject matter of the applications." It is thus argued by Mr. Thaler, and is the main issue in this lawsuit, that "[t]he Rejections create a novel substantive requirement for patentability that is contrary to existing law and at odds with the policy underlying the patent system." Further, Mr. Thaler claims that "[d]efendants' position is anti-intellectual property and anti-business, and it puts American businesses at an international disadvantage compared to businesses in jurisdictions that will choose to grant patents on AI-generated inventions."

Given the argument already set forth, this Note will proceed with further detail in three parts. Part I, entitled "The Current Framework: U.S. and U.K. Intellectual Property Law," shall be divided into three subsections. Subsection A will discuss the current framework and state of American and British copyright law. In doing so, we will examine relevant sections and provisions of the American Copyright Act of 1976, as well as the British Copyright, Designs and Patents Act of 1988. Subsection B will discuss, in similar fashion to Subsection A, the current framework and state of American and British patent law. In so doing, we will evaluate the American Patent Act of 1952, and again look to the catch-all British Copyright, Designs and Patents Act of 1988. Proceeding then to summarize our findings from subsections A and B, and drawing pertinent conclusions therefrom, Subsection C will seek to determine whether either U.S. or U.K. Intellectual Property law provides protection to the works of authorship or inventions created by AI systems.

Part II will then seek to answer what is perhaps the fundamental question belying this piece: should U.S. and U.K. law afford IP law protections to works of authorship and inventions created by AI systems? This question must be answered first without bias or partisanship. Rather, we must seek to initially answer it on a hypothetical basis, irrespective of whether the current legal frameworks already so provide. Within, this Note evaluates the strengths and weaknesses of both possible scenarios.

^{18.} Id.

^{19.} Id.

^{20.} Id.

^{21.} Id.

^{22.} Id.

In concluding Part II, this Note will then return to the current state of affairs, as first discussed in Part I, Subsection C, above, to find that while both U.S. and U.K. law should provide IP law protections to works of authorship and inventions created by AI systems, only U.K. law currently does.

Given that U.S. law should, as is the opinion of this Note, align itself with the position of U.K. law with respect to this topic, Part III will provide recommendations for the U.S. moving forward. Part III will specifically highlight the opportunity provided by *Thaler v. Iancu*, a pending Federal appeal already generally discussed. Furthermore, Part III will also discuss the benefits of the U.S. taking a global approach to its own changes to its legal framework, and as a result will only enhance and reiterate the reasoning and logic behind making such changes to U.S. law.

PART I: THE CURRENT FRAMEWORK: U.S. AND U.K. INTELLECTUAL PROPERTY LAW

Allow us, then, to start at the beginning. As previously noted above, it is the argument and purpose of this Note to show that current U.S. IP law does not protect inventions or works of authorship created by AI systems, and in so doing demonstrate why and how such protection should be afforded. Let us first, however, give a full picture of current U.S. and U.K. IP law for works of authorship (via copyright law) and inventions (via patent law).

A. American and British Copyright Law

U.S. COPYRIGHT LAW

All American Intellectual Property law is premised on the Intellectual Property Clause of the U.S. Constitution (namely, Article 1, Section 8, Clause 8). The Intellectual Property Clause states that the Congress of the U.S. shall have the power "To promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries." ²³

Subsequent legislation has been since passed by the U.S. Congress, which is more directly applicable to copyright law and its extended protections. Currently, the relevant law is the *Copyright Act of 1976*. Among its multitude of provisions, the most relevant for our purposes is Section 102. Entitled "Subject matter of copyright: In general," it states

in relevant part that "(a) Copyright protection subsists, in accordance with this title, in original works of authorship fixed in any tangible medium of expression, now known or later developed, from which they can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device."²⁴ Furthermore, it notes that:

"(a) [W]orks of authorship shall include the following categories: (1) literary works; (2) musical works, including any accompanying works; (3) dramatic works, including any accompanying music; (4) pantomimes and choreographic works; (5) pictorial, graphic, and sculptural works; (6) motion pictures and other audiovisual works; (7) sound recordings; and (8) architectural works."²⁵

More succinctly, to qualify for copyright law protections, a human author must produce an "original work of authorship" which is to be "fixed in any tangible medium of expression," and which falls under at least one of the eight provided categories in Section 102(b).²⁶ The protections afforded by U.S. copyright law are more fully outlined in other sections within the *Copyright Act*, including Sections 106 and 107. It should be specifically noted, however, that there is no definition of "author" provided in Section 101 of the *Copyright Act of 1976*, which provides "Definitions." Despite providing definitions for innumerable other terms, no definition of "author" is offered.²⁸

So, then, how do we know that U.S. copyright law requires a human author? Well, relevant case law on the subject is determinative. In *Naruto v. Slater*, the 9th Circuit U.S. Court of Appeals sought to "determine whether a monkey may sue humans, corporations, and companies for damages and injunctive relief arising from claims of copyright infringement." In finding against "Naruto" (the non-human, animal, monkey), the Court noted that "we conclude that this monkey—and all animals, since they are not human—lacks statutory standing under the Copyright Act." For further discussion of why non-human authors are ineligible for copyright protection, look no further than *Kelley v. Chicago Park District*. In *Kelley*, the 7th Circuit U.S. Court of Appeals was faced with a naturally growing garden, rather than an animal monkey

^{24.} Copyright Act of 1976, *supra* note 9, at § 102(a).

^{25.} Id.

^{26.} Id. at § 102.

^{27.} Id. at § 101.

^{28.} Id.

^{29.} Naruto v. Slater, 888 F.3d 418, 420 (9th Cir. 2018).

^{30.} *Id.*

^{31.} Kelley v. Chicago Park District, 635 F.3d 290 (7th Cir. 2011).

as in *Naruto v. Slater*.³² In ruling against finding copyright protection for the naturally growing garden, the 7th Circuit noted "[t]he real impediment to copyright here is not that Wildflower Works fails the test for originality (understood as 'not copied' and 'possessing some creativity'), but that a living garden lacks the kind of authorship and stable fixation normally required to support copyright."³³ The Court later stated "[a]uthors of copyrightable works must be human; works owing their form to the forces of nature cannot be copyrighted."³⁴ It is thus undoubtedly clear from these sources, and the aforementioned above, that U.S. copyright law requires human authorship for the extension of its protections.

U.K. COPYRIGHT LAW

In the United Kingdom, the relevant statute for copyright law and the protections offered by it is the *Copyright, Designs and Patents Act of 1988*.³⁵ Under Part I, Chapter I, Section 1, entitled "Copyright and copyright works", the statute states "(a) Copyright is a property right which subsists in accordance with this Part in the following descriptions of work—(a) original literary, dramatic, musical or artistic works, (b) sound recordings, films [or broadcasts], and (c) the typographical arrangement of published editions."³⁶ Subsequent sections provide for additional categories for the copyrighting of works, with Section 4, for example, providing for "Artistic works", and Section 7 providing for "Cable programmes".³⁷

Furthermore, in Part I, Chapter I, Section 9, entitled "Authorship of work", the statute provides that:

"(1) In this Part 'author', in relation to a work, means the person who creates it...(3) In the case of a literary, dramatic, musical, or artistic work, which is computer-generated, the author shall be taken to be the person by whom the arrangements necessary for the creation of the work are undertaken."³⁸

All protections granted through copyrighting a work of authorship are provided for in other areas throughout the Statute, including Part I, Chapter I, Section 2³⁹ and Part I, Chapter II (entitled "Rights of Copyright")

^{32.} Id. at 290.

^{33.} Id. at 303.

^{34.} Id.

^{35.} The Copyright, Designs and Patents Act of 1988, supra note 4.

^{36.} Id., at ch. 1, § 1.

^{37.} Id., at ch. 1.

^{38.} Id., at ch. 1, § 9.

^{39.} Id., at ch. 1, § 2.

Owner").⁴⁰ Thus, as a direct result of the provision found in Part I, Chapter I, Section 9, subsection 3, U.K. law does not require human creation for the extension of IP law protections. Instead, the IP law protections extend to the human individual responsible for the creation of the AI or other computerized system or machine.⁴¹ In other words, take the example found in *Thaler v. Iancu*, first discussed above.⁴² Suppose that, instead of living in the United States, Mr. Thaler was a resident of the United Kingdom. Assume further the same set of facts, namely that Mr. Thaler created his "DABUS" AI system, which then created work otherwise protectable under IP law. Were this to be the case, and Mr. Thaler had created "DABUS" with its own subsequent creations thereafter, under U.K. law, these subsequent creations by "DABUS" would be protectable by Mr. Thaler, who would be assigned the honorary title of "author" or "inventor" of such creations.

B. American and British Patent Law

U.S. PATENT LAW

As noted above, all American Intellectual Property law is based within the bounds of the Intellectual Property Clause of the U.S. Constitution (Article 1, Section 8, Clause 8).⁴³ Again, it states that Congress shall have the power "To promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries."

In the United States, more applicably to patent law, the relevant federal statute is the *Patent Act of 1952*. Section 101 of the Patent Act, entitled "Inventions patentable", states that "Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title." Sections 102 and 103, entitled "Novelty" and "Non-obvious subject-matter", respectively, provide additional requirements and conditions for patentability. In other words, in order for an invention to

^{40.} The Copyright, Designs and Patents Act of 1988, supra note 4, at ch. 2.

^{41.} Id., at ch. 1, § 9(3).

^{42.} See, infra, discussion of Thaler v. Iancu, supra note 7.

^{43.} Intellectual Property Clause, supra note 2.

^{44.} Id.

^{45.} Id.

^{46.} *Id.* § 101.

^{47.} Id. § 102, 103.

be patentable in the United States, and thus eligible for the protections offered by American patent law, the invention must be novel, useful, and non-obvious.

Further, Section 100(f) of the Patent Act defines the term "inventor". 48 It states that "The term ... means the individual or, if a joint invention, the individuals collectively who invented or discovered the subject matter of the invention." 49

U.K. PATENT LAW

In Great Britain, the relevant statute in the field of patent law is also the Copyright, Designs, and Patents Act of 1988.⁵⁰ Part V and Part VI, entitled "Patent Agents and Trademark Agents" and "Patents". respectively, are most applicable here. The United Kingdom's Intellectual Property Office (IPO) provides for a "statement of The IPO website notes that a "statement of inventorship."51 inventorship" must be completed when the applying individual is not the inventor, is a member of a group or team of individuals responsible for the invention, or is applying on behalf of a company or business.⁵² Patents Form 7, however, provides no space for an applicant to claim that they are applying for a patentable invention created by a being other than a human individual.⁵³ Instead, only the three possible exceptions noted above are provided for. However, this is not necessarily to say that U.K. patent law requires an inventor to be an individual human being or a group thereof. Instead, consider two distinct possibilities.

First, consider the effect upon which U.K. copyright law might have upon U.K. patent law. U.K copyright law explicitly allows and provides for non-human creation of a work of authorship. Would it not then be illogical and inconsistent for U.K. patent law to require human invention and disallow such invention by AI and other computer systems and machines?

Second, consider any relevant case law on the subject. In doing so, highlight for yourself the almost magical and miraculous fortune of

^{48.} Id. § 100(f).

^{49.} Id.

^{50.} The Copyright, Designs and Patents Act of 1988, supra note 4.

^{51.} Patenting your invention, GOV.UK, available at https://www.gov.uk/patent-your-invention#:~:text=You%20can%20use%20a%20patent,can%20be%20made%20or%20used (last visited Mar. 4, 2022).

^{52.} Id.

^{53.} Form 7, U.K. INTELLECTUAL PROPERTY OFFICE, available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_dat a/file/711838/Form 7.pdf (last visited Mar. 4, 2022).

having the same individual apply for the same series of rights in multiple countries. In so doing, try to recognize and appreciate my own personal delight at this discovery. Mr. Stephen Thaler is truly a godsend to this Note, and I send him my sincerest thanks for the fortuitous luck he has provided. In *Thaler v. The Comptroller-General of Patents, Designs and Trademarks*, Mr. Thaler likewise submitted applications for patents in the U.K. for his "DABUS" AI system.⁵⁴ In finding for Mr. Thaler, the England and Wales High Court for Patents noted:

"It is common ground that DABUS is not a person, whether natural or legal. DABUS is not a legal person because (unlike corporations) it has not had conferred upon it legal personality by operation of law. It is not a natural person because it lacks those attributes that an entity must have in order to be recognized as a person in the absence of specific (statutory) legal intervention. It is, therefore, clear, that DABUS cannot make an application for a patent, whether by itself or jointly with another...As I have noted, in this case DABUS is <u>not</u> the applicant: Dr. Thaler is. The requirements of section 7(1) are, therefore, met."⁵⁵

As such, given both the relevant case law and the predisposition against such a blaring contradiction within portions of a country's Intellectual Property laws, it is only logical to conclude that the United Kingdom does, in fact, allow inventions created by AI systems to be eligible for patent law protections.

C. Does the current U.S. and U.K. law afford protection to AI systems?

The previous section examined the current state and framework of American and British IP law, in the realms of copyrights and patents. Moving forward, we must in a conclusory fashion determine whether the American and British IP legal frameworks provide protection to inventions and works of authorship created by AI systems. In so determining, we must evaluate just how far the protections afforded by U.S. and U.K. law extend.

THE UNITED STATES OF AMERICA

The American IP legal framework was explored in some detail above. Here, however, we must conclude that U.S. IP law does not extend protections to works of authorship or inventions created by AI

^{54.} Thaler v. The Comptroller-General of Patents, Designs and Trade Marks [2020] EWHC 2412 (Pat.) [hereinafter Thaler v. Comptroller-General].

^{55.} Id.

systems. We can make so easy and clear a conclusion by returning to the law itself, and the interpretations of it made by several U.S. courts.

In the field of copyright law and the protections offered thereby, the Copyright Act of 1976 is again the relevant statute. We thus re-examine American copyright law's requirements. First, there must be an original work of authorship. 56 Secondly, the work of authorship must be fixed in a tangible medium of expression.⁵⁷ Additionally, the work of authorship must fall under one of the eight categories listed in Section 102(b).⁵⁸ Lastly, while the Copyright Act itself provides no definition of its own for who is and who is not an "author", we can infer from multiple sources that a human individual (or individuals) is required. First, it would be difficult to imagine, and would indeed seem incredible, that American law would require human creation of inventions to merit protection, all the while allowing computers and AI systems to create works of authorship and affording them protection in contrast. Additionally, we can point to such case law as Naruto v. Slater and Kelley v. Chicago Park District for support of the proposition that copyright protections are only afforded to human individuals as a result of their own creations. We can thus unequivocally conclude that American copyright law does not extend the protections offered by it to works of authorship created by AI systems.

In the field of patent law and the protections offered thereby, the *Patent Act of 1952* is again the relevant statute. We, therefore, reexamine American patent law's requirements. Namely, the invention in question must be new, useful, and non-obvious. Additionally, however, and in contrast to the *Copyright Act of 1976*, the statutory language of the *Patent Act of 1952* explicitly requires the inventor to be an individual human being or a group thereof. For the purposes of American copyright law, we in part inferred this human-creator requirement to likewise apply, noting specifically that it would seem incredible for U.S. IP law to include such a jarring and distinct contradiction in such similar respects. Additionally, and especially for the purposes of this Note, we further have the recent case and pending appeal of *Thaler v. Iancu*, in which this human inventor requirement is directly at issue. We can therefore unequivocally conclude, based upon the statutory language and

^{56.} Copyright Act of 1976, supra note 9, at § 102.

^{57.} Id.

^{58.} Id.

^{59.} Patent Act of 1952, supra note 9, at § 101, 102, 103.

^{60.} Id. at § 100(f).

^{61.} Thaler v. Iancu, supra note 7.

relevant case law, that U.S. patent law does not extend the protections offered by it to inventions created by AI systems.

THE UNITED KINGDOM

The results in the United Kingdom are in distinct contrast compared to those found in the United States. For both patents and copyrights, the relevant statute is again the *Copyright*, *Designs and Patents Act of 1988*.⁶²

For copyright analysis, we turn to Part I, Chapter I, Section 9, which defines who can be classified as authors and states in relevant part:

"(1) In this Part 'author', in relation to a work, means the person who creates it...(3) In the case of a literary, dramatic, musical, or artistic work, which is computer-generated, the author shall be taken to be the person by whom the arrangements necessary for the creation of the work are undertaken."⁶³

For the purposes of patent law analysis, we turn to Parts V and VI of the Copyright, Designs and Patents Act of 1988.64 Parts V and VI do not include a definition of their own as "inventors", nor do they include an unequivocal statement of the human-creator requirement. Here, we can again (similarly to the relationship between U.S. Patent Law and Copyright Law, but differently in terms of specific context) infer that different laws passed by the same government would tend not to directly conflict with one another, especially in such similar fields. Furthermore, where one field of the law (for the U.S., patent, and for the U.K., copyright) so clearly defines and states either a human-creator requirement (in the case of the United States), or the lack thereof (in the case of the United Kingdom), we must infer that the same human-creator requirement (or lack thereof) applies to a similar field of law (for the U.S., copyright, and for the U.K., patent). Similarly, we can also turn to the case of Thaler v. The Comptroller-General of Patents, Designs and Trademarks for even further evidence, and indeed proof, of U.K. law's lack of a human creator or inventor requirement.⁶⁵ As seen in that case. where an AI system has created material of its own making which would otherwise be eligible for patent protection under U.K. law, the invention is indeed eligible for protection, and the creator of the AI system itself is the individual who receives the legal protections afforded by U.K. IP law.

^{62.} Copyright, Designs and Patents Act of 1988, supra note 4.

^{63.} Id. at ch. 1, § 9.

^{64.} Id. at Parts V and VI.

^{65.} Thaler v. Comptroller-General, supra note 54.

Therefore, we can unequivocally conclude that U.K. patent law does not extend the protections offered by it to inventions created by AI systems.

We can thus, in summary, conclude that while American law offers no protection or eligibility to works of authorship or inventions created by AI systems, U.K. law stands in direct contrast by offering extending such protections.

PART II: SHOULD U.S. AND U.K. LAW AFFORD PROTECTION TO AI SYSTEMS?

Whether U.S. and U.K. law afford protection to creations of AI systems is an entirely different question than whether U.S. and U.K. law *should* afford protection to creations of AI systems. In other words, just because U.S. law does not afford protection to creations of AI systems, and just because U.K. law does afford such protection, does not necessarily mean that either U.S. or U.K. law takes the appropriate approach. In fact, upon further examination, we find that U.S. law takes an entirely imprudent approach, while U.K. law seems to strike an apt and advisable technique.

To reiterate again, and hopefully in lieu of sounding too much like a broken record, in the United States all intellectual property law is premised in the Intellectual Property Clause of the U.S. Constitution. 66 It states that the Congress of the United States shall have the power "[t]o promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries."

It should be noted that there is no human-creator requirement to be found neither expressly stated nor implied included in the text of the Intellectual Property Clause of the Constitution. Instead, the clear public policy interest underlying the Intellectual Property Clause of the U.S. Constitution is that which *is* explicitly stated: namely, the government's interest in promoting creation and innovation via the extension of legal protections to authors and inventors. The government promotes creation and innovation among authors and inventors by giving them incentive to continue such creation and invention, specifically through the means of protecting and preventing infringement upon their already created or invented works.

We can look to the United Kingdom (U.K.) for perhaps the best evidence of this singular governmental interest in full force and effect.

The sole interest underlying the U.K.'s IP law framework of patent and copyright laws is the advancement and progress of the arts and sciences. This interest permeates throughout the *Copyright, Designs and Patents Act of 1988*.⁶⁷ Indeed, in the United Kingdom this interest stretches as far back as the *Statute of Anne*, passed in 1710, and some may even argue further to the *Licensing of the Press Act* of 1662.⁶⁸ It isn't mere coincidence that the formal title of the *Statute of Anne* is "[a]n Act for the Encouragement of Learning, by Vesting the Copies of Printed Books in the Authors or Purchasers of Copies, during the Times therein mentioned." Indeed the preamble of the statute states "[f]or Preventing therefore such Practices for the future, and for the Encouragement of Learned Men to Compose and Write useful books..."

Thus, it must be said that, in direct contrast to our discussion of the United States, current U.K. IP law extends protections to works of authorship or inventions created by AI systems in consistency with the historic underlying interest of U.K. government in promoting innovation and creation.

Similarly, preventing the inventions and creations of AI systems from eligibility for copyright and patent protections is in direct contrast to the sole underlying interest present in the American Constitution's Intellectual Property Clause. How can it be said that the government is promoting the advancement and progress of the arts and sciences by preventing the creative works and inventions of AI systems from being eligible for copyright and patent protections? The only logical answer is that it cannot be so said. Preventing works of authorship and inventions created by AI systems from being eligible from copyright and patent protections provides no incentive for further progress and advancement of the arts and sciences. In fact, doing so actually inhibits and prevents such progress and advancement.

Indeed, there is no logical reason why such works of authorship and inventions should not be granted the same protections as those made by human creators. The works themselves are forced to meet the same set of requirements. All entities, human beings or otherwise, are made to play by the same set of rules under the applicable law(s). Works of authorship seeking copyright protection must be original, fixed in a tangible medium of expression, and fall under one of the eight categories

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^{67.} Copyright, Designs and Patents Act of 1988, supra note 4.

^{68.} Statute of Anne 1710, 8 Ann. c. 21; Licensing of the Press Act of 1662, supra note

^{69.} Statute of Anne 1710, supra note 68.

^{70.} Id.

provided in Section 102(b) of the Copyright Act.⁷¹ That continues to be the case no matter if the author is a human being or an AI system. The same can be said for inventions and patent law. Every invention will still have to be novel, useful, and non-obvious. The law should not make arbitrary discriminations between authors or inventors, and single out one segment out for differential treatment, especially when there is otherwise no logical or important reason to do so.

So why, then, does U.S. IP law do exactly that? I, for one, have difficulty imagining a situation in which laws are enacted and enforced for no good reason or underlying interest. In fairness, the United States has occasional (and sometimes, not so occasional) difficulty in passing any law, regardless of the merits or reasons. So, there must be *some* reason why U.S. IP law takes the stance of refusing to extend protections to the works of authorship and inventions created by AI systems.

By referring to academic research and other thoughts offered on the topic, we can best determine and then evaluate the reasons why American IP law might not extend protections to the works of authorship and inventions created by AI systems. After reading and pondering a multitude of such sources, I find that there are three such reasons which are central and shared.

First among such reasons is this: some scholars and onlookers believe the works of authorship and inventions created by AI systems cannot be extended IP law protections, simply because they are insufficiently creative. As we can recall from our discussion of U.S. copyright and patent law, there are statutory requirements listed as to what does and does not qualify for eligibility. These scholars and observers posit that, in both the worlds of copyright and patent, AI systems are incapable of creating sufficiently original or creative works to qualify for eligibility of IP law's protections.

As Samuel Scholz notes in a recent article, "we can conclude that because patents and copyrights are only issued to products of human creativity, and autonomous AI derivative works are not an example of human creativity, that AI derivative works are not eligible for patent and copyright protection." But why, in the opinion of these individuals, are AI systems incapable of demonstrating or possessing human creativity? In other words, what about "human" creativity distinguishes itself so significantly from "ordinary" creativity?

^{71.} The Copyright Act of 1976, supra note 9, at § 102.

^{72.} Samuel Scholz, A Siri-Ous Societal Issue: Should Autonomous Artificial Intelligence Receive Patent or Copyright Protection?, 11(1) CYBARIS AN INTELL. PROP. L. REV. 81, 117 (2020).

The Scholz article referenced above gives three supposed reasons as to why the creative works of AI systems are unlikely to be deemed as possessing "human" creativity. First, Scholz claims that extending IP law protections to AI creations is likely to decrease public trust.⁷³ Second, Scholz advances the theory that extending IP law protections to AI creations is likely to increase legal uncertainty.⁷⁴ And, lastly, Scholz hypothesizes that extending IP law protections to AI creations "creates a possible defense to patent infringement through incorrect inventorship."⁷⁵

Now, even at first glance, these "reasons" offered by Scholz in support of AI systems not possessing the capability for "human" creativity seem absurd and misplaced. What exactly does the public's trust have to do with a factual determination? In other words, the public's trust should have no impact on the simple factual analysis of whether an AI system can or cannot exhibit and possess the same levels of creativity as an ordinary human being. Likewise, the same concept can apply to the other two reasons offered. What exactly does legal uncertainty, or potential issues with patent infringement and defenses to it, have to do with a factual inquiry? Even Scholz himself seems to indicate this mismatching of an answer to question, noting "Although the definition of 'inventor' has yet to expand beyond human beings, it is possible for this to occur in the future, and we must consider the potential harm this may cause. Namely, expanding the definition of 'inventor' to include AI may decrease public trust, increase legal uncertainty, and create a possible defense to patent infringement through incorrect inventorship."⁷⁶ It is clear, even from a birds-eye view, that Scholz is either incapable or unwilling to offer actual and legitimate reasons for why AI systems cannot possess creative capabilities similar to, if not the same, as those found in individual human beings. As a result, the first reason offered as to why IP law protections cannot apply to creations of AI systems, namely that they lack human creativity, must be dismissed.

Next among such reasons is the claim that providing IP law protections to the creations of AI systems will result in no "net social benefit."⁷⁷ We can again look to the Scholz article for assistance in examining this theory.

^{73.} Id. at 111.

^{74.} Id.

^{75.} Id.

^{76.} Id.

^{77.} Scholz, *supra* note 71, at 117.

As Scholz claims, "Patent and copyright protection are only granted to transactions that present a net social benefit." Scholz notes that, with respect to the "natural rights" justification for IP law protections, "we can conclude that because copyrights are only granted under a natural rights justification to natural people, and AI does not have the same rights as natural people or groups of people, that copyrights cannot be granted to AI under a natural rights justification." This is a legitimately fair argument to make: under the natural rights theory, rights are only extended to natural people, and AI can never claim to be a natural person.

However, we know (and so, too, does Scholz) that in the United States the Constitution's Intellectual Property Clause grants IP law protections for a singular reason: the advancement and progress of society through promoting innovation and creation. Scholz even accepts that this is the case, stating "The United States copyright system likely follows this justification, as the Third Circuit Court of Appeals stated, 'the purpose of the copyright law is to create the most efficient and productive balance between protection (incentive) and dissemination of information, to promote learning, culture and development. Scholz's statement, that "AI works can only receive copyright protection under the incentive theory if they present an expression with social value that provides a net social benefit, further holds true. It is only when we come to evaluate Scholz's offered reasons as to why AI works do not, ultimately, provide a net social benefit that we again find fallacious logic and misplaced reasoning.

Scholz claims that "granting patent and copyright protection to autonomous AI derivative works may create three significant social costs: (1) a significant decrease in human employment, (2) an increase in legal uncertainty in the patent system, and (3) an increased burden on the USPTO." ⁸³ Again, we can point to a mismatch in reasoning within Scholz's argument. The only incentive present in the Constitution's Intellectual Property Clause is the advancement of society via innovation and creation. ⁸⁴

Regarding the first offered reason, IP law has never considered the economic ramifications of protecting an otherwise protectable and

^{78.} Id.

^{79.} Id. at 121.

^{80.} Id. at 89.

^{81.} Id. at 121.

^{82.} Id. at 123.

^{83.} Scholz, supra note 72, at 126.

^{84.} Id. at 89.

eligible creative work. If it did, it is likely that laptop computers, or televisions, would not be eligible for IP law protections. Did my purchase of a Lenovo Yoga 9 Series laptop last October not have a detrimental effect on the potential economic well-being of my local library? Did my purchase of a TCL flatscreen television when I moved into my apartment not have a detrimental effect on a multitude of businesses? Is my ability to watch the New York Rangers hockey game from the pleasure and comfort of my own living room not affecting the potential clientele of my local sports bar? Is my ability to tune in to CNN for a nightly news program not affecting the potential readership of the New York Times or a more local newspaper? Put in a slightly less personal, and more historical context, did Eli Whitney's invention of the cotton gin in 1793 not, at least immediately, result in a "significant decrease in human employment?"85 The only logical answer to all these rhetorical questions is this: IP law does not consider economic ramifications. Innovation is almost always responsible for an immediate, and often short-term, reduction in human employment. Yet this fact has not, and should not, stop IP law from extending its protections to otherwise eligible works.

Next, we consider the next offered "social cost", namely "an increase in legal uncertainty in the patent system." In doing so, and given Scholz's own reasoning, I think it best to evaluate this offered "social cost" at least in part with the last, namely the "increased burden on the USPTO" envisioned by Scholz. For the former, Scholz notes:

[a]s AI computing power increases exponentially, the number of AI-related patents will also increase exponentially, and an exponential increase in the prior art will increase the likelihood of a patent application being rejected for anticipation or lack of inventive step. Even if a patent is issued, the owner must manage the increased risk of the patent being invalidated through post grant review, inter partes review, or litigation.⁸⁸

Simply put, Scholz's concerns are totally legitimate. However, these concerns can be solved by less restrictive and burdensome means than a wholescale ban on extending IP law protections to the creations of AI systems.

What is more, the addition of further relevant case law will only add more clarification and certainty not less. If there are clear and drastic schisms in opinion and law among different U.S. Courts of Appeal, then the U.S. Supreme Court will intervene to once and for all clarify the topic

^{85.} Id. at 126.

^{86.} Id.

^{87.} Id.

^{88.} Scholz, supra note 72, at 129.

at hand. But this assumption that more applications for patents and copyrights will inherently lead to more court cases, and then somehow magically transform into more uncertainty, seems preposterous. In a common law country, such as the United States, more court decisions provide more clarity, not vice versa.

This brings us back, then, to Scholz's last "social cost," the burdensome impact that extending IP law protections to the creations of AI systems will have on the USPTO.⁸⁹ What Scholz has done here has provided within his own series of argument perhaps the best counterargument one can make. See, Scholz argues that extending IP law protections will have a deleterious effect on human employment. 90 Yet, then he also argues that the USPTO will be unduly burdened by the mass influx of applications? Then have the USPTO go hire some of those individuals, those who Scholz envisions joining the masses of the newly unemployed, to work for the USPTO and handle the incoming applications of the creative works of AI systems. What is more, Scholz even acknowledges this possibility, noting that "to counteract the issue of increasing the time needed to rule on a patent, the USPTO will need to hire additional examiners to review applications."91 However, while Scholz claims these newly employed individuals "will create an additional cost on society," this can be disproven on two fronts.

First, we can see as a self-fulfilling prophecy that more applications mean more fees, which means more funding for the USPTO gathered from those fees, which means the ability to hire more people to work in the USPTO, resulting in the ability to process applications faster, which in turn leads to even more applications. It is a tautology!

Additionally, who is to say that the potentially slight increase that might be required in funding to the USPTO will necessarily outweigh the otherwise significant societal advancement and progress which would occur? Even further, the American Federal government almost exclusively spends its time, and its funds, trying to promote even the slightest gains in economic growth and societal progress. It is particularly hard to believe that Capitol Hill, or 1600 Pennsylvania Avenue for that matter, would be unwilling to make the down-payment in this case. As a result of these reasons, and those offered and explained above, the second reason as to why the creations of AI systems cannot be extended IP law protections, namely that they will provide no net social benefit, must be dismissed and disregarded.

^{89.} Id. at 126.

^{90.} Id.

^{91.} Id. at 130.

Third and last among such reasons as to why *not* to extend IP law protections to the creations of AI systems is this: there are perhaps better, more apt alternatives. For evidence of this argument, we can turn to one of many sources for further guidance and clarification. In *Artificial Stupidity*, Clark Asay raises the possibility of "Government AI" as a legitimate alternative to providing the creations of AI systems with IP law protections. As Asay notes, "[o]ne of history's important lessons is that dramatic, far-reaching innovation often requires significant backing from state actors." As he continues, "[t]he reason behind this is at least somewhat intuitive: 'truly radical innovation needs patient, long-term, committed finance. This type of finance is hard to find in the short-term in the private sector." Asay concludes by noting that "[t]he lessons of history suggest that if we are to avoid enduring artificial stupidity and make real breakthroughs in achieving general AI, government backing is necessary, and preferably in large doses."

Perhaps the best counterargument to be made to Asay's proposed alternative is in his next sentences:

[t]his does not mean that private sector entrepreneurs will have no role to play in achieving general AI—they certainly will, and undoubtedly will have much to contribute. But as the history of many significant innovations teaches, often their breakthroughs will only come on the shoulders of governmental involvement. 96

This appears to indicate, less an appropriate *sole* strategy moving forward, so much as an appropriate *dual* strategy moving forward. In other words, using Asay's recommendations in conjunction with the position of this Note, we can kill two birds with one stone. If government wants to make significant investment in the AI space, that is perfect. Government funding will likely lead to better innovation and creation, and lead to it more quickly, all of which results in an even greater need than before for IP law protections to be extended to the creations of AI systems. In so saying, this approach is less an alternative in its own right, and more so a legitimate additional policy to be taken in conjunction with extending IP law's protections.

In sum, then, we have now examined three reasons as to why the United States might *not* want to extend IP law protections to the creations of AI systems. Thus, despite the seeming attractiveness of these reasons

^{92.} Clark D. Asay, Artificial Stupidity, 61 Wm. & MARY L. REV. 1187, 1252 (2020).

^{93.} Id. at 1252-3

^{94.} Id. at 1253.

^{95.} Id. at 1255.

^{96.} Id.

at first glance, our ability to dispel of them is rather simple and can be done with some ease. As a result, it is indeed the case that the reasons as to why *not* to extend IP law protections to works of authorship or inventions created by AI systems are few and far between, and when found, they cannot stand up to the tests of logic and common sense. In contrast, the reasons as to why IP law protections *should* be extended to works of authorship or inventions created by AI systems are simply more logical than those already discussed. We again find here, in support of the extension of IP law's protections, three shared and overarching reasons.

First, AI systems have legitimate and defined features and abilities which make them capable of producing identical work to an individual human being.⁹⁷ As Dr. Shlomit Yanisky Ravid and Xiaoqiong Liu offer:

"[w]e claim that there are eight crucial features of AI systems that create new challenges to intellectual property law . . . [they are:] [(1)] [c]reativity[; (2)] [u]npredictable [r]esults[; (3)] [i]ndependent, [a]utonomous [o]peration (t-autonomy)[; (4)] [r]ational [i]ntelligence[; (5)] [e]volving[; (6)] [c]apable of [l]earning, [c]ollecting, [a]ccessing, and [c]ommunicating with [o]utside [d]ata[; (7)] [e]fficieny and [a]ccuraty[; and (8)] '[f]ree [c]hoice' [g]oal [o]riented."98

As Ravid and Liu then note, "[w]e argue that, due to these features, AI systems are capable of independently developing inventions which, had they been created by humans, would be patentable (and able to be registered as patents)." It appears from this that Ravid and Liu offer what is perhaps the best counterargument to Scholz's original issue with the extension of IP law protections. Namely, Scholz claims that AI systems lack the ability for human creativity and authorship. In contrast, Ravid, and Liu claim, with significant evidence and support, that AI systems are in practice, and ultimately produce, identical to individual human beings.

Second, Russ Pearlman argues that the current position of U.S. law against extending IP law's protections to the creations of AI systems is "not based off statutory requirements but on assumptions about computer capabilities stemming from an analysis done in the mid-twentieth

^{97.} Shlomit Yanisky Ravid & Xiaoqiong Liu, When Artificial Intelligence Systems Produce Inventions: An Alternative Model for Patent Law at the 3A Era, 39 CARDOZO L. REV. 2215, 2224 (2018).

^{98.} Id. at 2215-7.

^{99.} Id.

^{100.} Scholz, supra note 72.

century, almost [forty] years ago."¹⁰¹ Pearlman later quotes from the Commission on New Technological Uses of Copyrighted Works (CONTU). Pearlman later quotes from the Commission on New Technological Uses of Copyrighted Works (CONTU). In 1978, CONTU determined that:

"[t]he computer, like a camera or a typewriter, is an inert instrument, capable of functioning only when activated either directly or indirectly by a human . . . [T]he computer affects the copyright status of a resultant work no more than the employment of a still or motion-picture camera, a tape recorder, or a typewriter." ¹⁰⁴

Regardless of the validity of Pearlman's claims, what is undoubtedly true is that there exists among many an ignorance about the current and rapidly advancing capabilities of AI systems. As Ravid and Liu argue, the development of AI systems has grown tremendously in recent years and decades, and AI systems are now capable of far greater and more sophisticated works than once before. ¹⁰⁵

Lastly, and perhaps most important, the fundamental interest underlying the extension of IP law's protections to the creations of AI systems is *incentive*. As Ryan Abbott argues, "Treating nonhumans as inventors would incentivize the creation of intellectual property by encouraging the development of creative computers." ¹⁰⁶ Undoubtedly, this is true. For every reason above, extending IP law's protections is the appropriate approach forward.

PART III: MOVING FORWARD: RECOMMENDATIONS

In recent decades, the United States and its allies have increasingly taken a global approach to solving common legal issues and challenges affecting the global community. This approach can be seen through numerous iterations of international agreements, all of which seek to solve the legal challenge at hand and to bring the legal frameworks of the signatory parties into better and further cohesion. This can perhaps best

^{101.} Russ Pearlman, Recognizing Artificial Intelligence (Al) as Authors and Inventors Under U.S. Intellectual Property Law, 24 RICH. J. L. & TECH. 1 (2018).

^{102.} Id. at 16.

^{103.} Id.

^{104.} Id. at 26.

^{105.} Ravid & Liu, supra note XXX.

^{106.} Ryan Abbott, I Think, Therefore I Invent: Creative Computers and the Future of Patent Law, 57 B.C. L. REV. 1079, PIN (2016).

be illustrated by the changes made by the United States to its copyright framework under the Berne Convention. 107

However, these international agreements (as was the case with the Berne Convention) often predate U.S. involvement.¹⁰⁸ In other words, numerous signatory parties had already adopted the provisions of the Berne Convention before the U.S. itself adopted its measures and became a signatory party.¹⁰⁹ Indeed, in the case of the Berne Convention, the United States was among the last to adopt its provisions.¹¹⁰

The present situation thus provides the United States with a wonderfully different opportunity: the chance to lead the way in the global community. The United States can individually act to cause change to its own legal framework in this space, rather than wait and react to the changes first made by allies and international partners. This very opportunity provides several avenues for the United States. First, by being the first to recommend widescale and global adaptation to the legal challenges raised by these technological advances, the U.S. can decide what to change about its own legal frameworks, how much to change about its own legal frameworks, and how (in practice) to change its own legal frameworks. In other words, being first to act within this space on a global scale provides the U.S. with far greater flexibility and choice than if the U.S. were to wait and play a reactionary role.

Further, acting first would reaffirm the oft-claimed American position as the leader of the free world, and as being the preeminent nation to which peers, allies, and foes alike look to for guidance and clarity. It is long past time for the United States to end even the appearance of its so-called "leading from behind" philosophy. American prestige and status around the world have been in decline for some time now and have only further been exasperated by recent events and developments. By taking the lead once again on the global stage, by spearheading a coalition of nations moving toward a singular purpose of providing IP law protections to the creations of AI systems, the United States can begin (even if in some small part) to repair its image around the world.

^{107.} Berne Convention for the Protection of Literary and Artistic Works, Sep. 9, 1886, 828 U.N.T.S. 221.

^{108.} Id.

^{109.} Id.

^{110.} Id.

^{111.} See generally Max Pushkin, Status and Responsibility: The Decline of American International Prestige in the Trump Era, BROWN POL. REV. (May 30, 2020), available at https://brownpoliticalreview.org/2020/05/status-and-responsibility-the-decline-of-american-international-prestige-in-the-trump-era/ (last visited Jan. 25, 2022).

So, what should be changed about the current U.S. IP law framework? How do we do it? These are perhaps as important of questions as the question of whether to change at all itself.

In my view, the best approach would be to bring the U.S. IP law framework in line with that found in the United Kingdom. Namely, the United States should begin by amending by some means the Copyright Act and the Patent Act to provide the creations of AI systems with the protections offered under the current IP law framework. What is more, the new U.S. framework should take the stance of the current U.K. framework even further, in granting IP protections to the individual responsible for the creation of the AI system, not granting the protections to the AI system itself. In doing so, the United States would fulfill the incentives and reasons provided above as to why, in the first place, it should even change its IP law framework. Additionally, and as suggested first by Asay's Artificial Stupidity, the U.S. government should also provide funding for the advancement and progress of artificial intelligence in the private sector. Taking this dual approach, in conjunction rather than simply one or the other, provides a double incentive. The incentive is now being provided to the private sector for artificial intelligence advancements, both through federal funding as well as through the protection of any creative works or inventions by IP law. American government has shown a clear willingness in the past to grant federal funds in exchange for even modest economic growth and should choose to do so again here.

As for the second, the U.S. should take advantage of the opportunity provided to it in the upcoming appeal, *Thaler v. Iancu*. This opportunity is two-fold. First, the appeals court could decide that the reasoning behind the current U.S. IP law framework is misguided and imprudent, and in doing so choose to itself singlehandedly amend American law in the ways suggested above. Allow me to note, this is highly, highly unlikely. It is highly unlikely that a federal court will disregard existing law, legal precedent, administrative practice, and abundantly clear statutory language, in favor of its own thinking on the matter. What is instead more likely is the second of these two possible scenarios: namely, that sufficient public attention can be brought to the case, and that public sentiment will be in opposition to what is likely to be a subsequent court's affirmation of the decision against Mr. Thaler. As a result of this public sentiment, we can then hope for and seek legislative action by the U.S. Congress in furtherance of the policy changes outlined above.

Only when the U.S. has changed its own domestic policy with respect to IP law can the United States proceed to taking a more global approach to the issue at hand. Envisioning a situation where the U.S., in

close coordination with the United Kingdom, seeks to rally and persuade its closest allies and international partners to sign a global agreement along the lines of that seen in the Berne Convention, would be ideal.

This three-step process will not happen overnight. It will undoubtedly take time, effort, and significant persuasive skill to change the American legal stance. But the scale of this effort should not dissuade from the taking and claiming the appropriate approach. There can be no question of the merits of making such changes. Though outlined in some detail above, it suffices to say that current U.S. law is in direct contradiction with its foundational principles and interests in the realm of preventing the protection of works of authorship and inventions created by AI systems. Further, the pending Thaler appeal provides the U.S. with the perfect vehicle for first making changes to its own legal frameworks. If it chooses to do so, the United States can then begin to spearhead a global movement among its allies and international partners, all moving toward acceptance and protection of works of authorship and inventions created by AI systems.



LOST IN TRANSLATION: ABSENCE OF DOMESTIC IMPLEMENTATION OF INTERNATIONAL NORMS FOR THE INDIGENOUS PEOPLES OF THE UNITED STATES

Esther Kim¹

Abstract

For centuries too long, the Indigenous Peoples of the United States ("Native Americans" or "Natives") experienced violent forms of treatment and were continuously subjected to oppressive and discriminatory policies that repetitively contradicted previously enacted treaties and promises made to the Natives. Throughout this nation's history, Native tribal lands were forcibly reduced and ultimately constrained onto specifically designated plots of unfamiliar grounds that were separated from the rest of the city's population. Members of the Native communities were discouraged from practicing traditional aspects of their culture within each subsequent generation, as this was considered a hindrance to forced assimilation strategies. Such actions culminated into deliberate inaction on the part of the U.S. federal government, as past governmental guarantees, that seemingly established better standards for relations with the Natives, proved to only hold relevance when it was profitable for the government.

Appeals for Native independence and rights went ignored, and federal policies prioritized economic initiatives at the cost of Native interests. The U.S. failed in pursuing necessary legislative changes in producing the required solutions for Native concerns and issues. In practice, the federal government has unjustly diminished Native rights and self-determination for the majority of the country's history, and still today, the unfortunate fact remains that there has not been significant change in the cause for recognizing the rights and liberation of the U.S.'s indigenous peoples.

Within this context, the United Nations Declaration on the Rights of the Indigenous Peoples ("UNDRIP" or "Declaration") was passed by the

^{1.} J.D. Candidate, 2022, Syracuse University College of Law. First and foremost, I would like to thank my family for their unconditional love and support throughout my academic career. Your continuous belief in me has encouraged me to challenge myself to work towards exerting my best in all that I do. Thank you for your constant inspiration. I would also like to express my deepest and sincerest appreciation to Professor Elizabeth August who provided much guidance and direction during this writing process, and notably, through my time in law school as my mentor. Lastly, thank you to my friends who have and continue to stand with me to experience all the future holds next.

General Assembly in 2007.² This passing by an international body of representation served as a landmark moment in the advocacy for Indigenous Peoples in all parts of the world. For the first time, there existed an agreed upon advancement of the need for Indigenous recognition and protection, not only as domestic exercise, but as an international norm.³ The Declaration consisted of collective rights and human rights, and it further highlighted a shared cor sensus among Indigenous Peoples from every nation of the essential need for a universal standard that identified fundamental Indigenous rights to which states could reference and follow, and perhaps allow their respective home policies to be influenced by.⁴

The U.S., however, was one out of four initial states to vote against the passage of the Declaration, and it was the last nation out of the four to eventually reverse its decision in 2010.⁵ With its eventual endorsement during President Barack Obama's administration, came a revitalized hope in acknowledgement of the Natives as an official and asserted Peoples.⁶ Aligned with this encouragement, however, was also the fear of passivity and indifference which were the responses to which Natives had become all too familiar with when it came to defending their overall wellbeing.⁷ Therefore, the absence of domestic implementation of the UNDRIP provisions in the U.S. illustrates another form of disappointment in the nation's narrative of its current inadequate treatment of Native rights and Native policy. One of the more disturbing cases of this is demonstrated in the use and operation of domestic criminal law, as the bureaucratic exercise of criminal law on Native reservations create various avenues of allowing the federal government to turn a blind eye to the violent crimes that occur on tribal reservations. The universally recognized security that should be afforded to all Indigenous Peoples still remains an ideal for the Natives in the U.S., as the rights contained and advanced in the UNDRIP have yet to become common application in safeguarding Native welfare,

^{2.} United Nations Declaration on the Rights of Indigenous Peoples, UNITED NATIONS: DEP'T OF ECONOMIC AND SOCIAL AFFAIRS, available at https://www.un.org/development/desa/indigenouspeoples/declaration-on-the-rights-of-indigenous-peoples.html (last visited Aug. 6, 2021).

^{3.} See id.

^{4.} See id.

^{5.} US Acts on UN Rights of Indigenous Peoples Declaration, PINE TREE LEGAL AID (July 26, 2011), available at https://ptla.org/wabanaki/us-acts-un-rights-indigenous-peoples-declaration (last visited Aug. 6, 2021).

^{6.} VICTORY!: U.S. Endorses UN Declaration on the Rights of Indigenous Peoples, CULTURAL SURVIVAL, available at https://www.culturalsurvival.org/news/victory-us-endorses-un-declaration-rights-indigenous-peoples (lasted visited Mar. 22, 2021).

^{7.} See id.

health, safety, and resources.⁸ On some given reservations, the crime rate can be five to seven-times higher than the national average, and the lands are filled with multiple accounts of horrendous homicides.⁹ In the majority of federally-recognized Native reservations, the formal processes of undertaking an investigation into any particular case that transpires on tribal grounds are faced with a jurisdictional struggle and confusion, as it is left unclear whether the county and state or the tribal government has jurisdiction, or whether the matter is entirely in the hands of the federal agencies.¹⁰ As a result, this has halted initiation into certain cases that take place on tribal reservations, and many investigations persist unsolved and unprosecuted.¹¹

In comparison to the past with the present federal Indian policy, not much is different, and the similarities that are still commonplace present a harsh reality into the federal government's continuing lack of care in prioritizing fundamental Native rights that should have been legally sanctioned centuries ago. The most glaring example of this is in the domestic field of criminal law, as it is in this component of the country's legal organ in which exists the most blatant failures of executing justice for one of the nation's most vulnerable groups of individuals. More must be done on the part of the federal government to ensure that its original dedication to the UNDRIP is satisfied, and that the principles of the universal declaration act as a proper source for influencing domestic criminal legislation to shape what should be modern Native policies with legitimate protections and indemnified security. Until the federal government changes its course and undertakes measures towards rectifying its past and its once-defining discriminatory behavior towards Natives, fairness will be delayed and the administration of required justice for Native communities will amount to nothing more than yet another broken promise.

^{8.} See Frequently Asked Questions About the UN Declaration on the Rights of Indigenous Peoples, CULTURAL SURVIVAL, available at https://www.culturalsurvival.org/news/frequently-asked-questions-about-un-declaration-rights-indigenous-peoples (last visited. Aug. 6, 2021).

^{9.} Timothy Williams, *Brutal Crimes Grip an Indian Reservation*, NY TIMES (Feb. 12, 2012), *available at* https://www.nytimes.com/2012/02/03/us/wind-river-indian-reservation-where-brutality-is-banal.html?smid=tw-nytimesnational&seid=auto (last visited Aug. 6, 2021).

^{10.} Sierra Crane-Murdoch, On Indian Land, Criminals Can Get Away With Almost Anything, THE ATLANTIC (Feb. 22, 2013), available at https://www.theatlantic.com/national/archive/2013/02/on-indian-land-criminals-can-get-away-with-almost-anything/273391/ (last visited Aug. 6, 2021).

^{11.} See id.

INTRODUCTION

In the U.S., the Bureau of Indian Affairs ("BIA") of the U.S. Department of the Interior identifies 574 federally recognized American Indian and Alaska Native tribes and villages, and defines American Indian or Alaska Native person as "someone who has blood degree from and is recognized as such by a federally recognized tribe or village (as an enrolled tribal member) and/or the United States."¹² At present, there are approximately 2,907,272 individuals who identify as American Indian or Alaska Native affiliated with a federally recognized tribe in the U.S.¹³ This number has increased steadily over the years, and there is an additional 2.9 million identifying as multiple races, including American Indian. 14 The Native population that identifies as solely Native American expanded 13% between the years of 2000 and 2018, while the number of individuals who identify as at least partially Native American increased 77%. 15 An estimated 30% of the 5.8 million Natives in the U.S. live on tribal reservations, where living conditions have been said to resemble the Third World, as Native residents lack the basic necessities of water and electricity. 16 There is an immense housing shortage issue, and around 30% of Native housing on reservations is overcrowded, as it is not uncommon for several generations of families to live together in a single The unemployment rate for Natives is 6.6%, which is significantly higher than the national unemployment average of 3.9%. 18 This rate is also considerably higher for those Natives who reside on

^{12.} Frequently Asked Questions, U.S. DEP'T OF THE INTERIOR INDIAN AFFAIRS, https://www.bia.gov/frequently-asked-questions (last visited Aug. 6, 2021); see also Tribal Population, CTR. FOR DISEASE CONTROL AND PREVENTION, https://www.cdc.gov/tribal/tribesorganizations-health/tribes/state-population.html (last visited Aug. 6, 2021).

^{13.} *Id*.

^{14.} Andrew Soergel, *Where Most Native Americans Live*, US NEWS (Nov. 29, 2019), *available at* https://www.usnews.com/news/best-states/articles/2019-11-29/california-arizona-oklahoma-where-most-native-americans-live (last visited Aug. 6, 2021).

^{15.} Id.

^{16.} Living Conditions, NATIVE AMERICAN AID (2015), available at http://www.nativepartnership.org/site/PageServer?pagename=naa_livingconditions (last visited Aug. 6, 2021).

^{17.} Patrice Kunesh, *Increasing Access to Affordable Housing in Indian Country*, SHELTERFORCE (Nov. 25, 2019), *available at* https://shelterforce.org/2019/11/25/increasing-access-to-affordable-housing-in-indian-country/ (last visited Aug. 6, 2021).

^{18.} American Indians and Alaska Natives in the U.S. labor force, U.S. BUREAU OF LABOR STATISTICS (Nov. 2019), available at https://www.bls.gov/opub/mlr/2019/article/american-indians-and-alaska-natives-in-the-u-s-labor-force.htm (last visited Aug. 6, 2021).

reservations, as the unemployment rate on tribal reservations is estimated to be 11.6%.¹⁹

In observance of the federal crime data, the accessible information has long suggested that Native reservations have higher rates of violent crime than the national average, especially when it comes to violence against women. Approximately 46% of all Native American women have been said to have experienced some sort of physical abuse including rape, stalking, or domestic violence.²⁰ Native women are murdered at a disproportionate rate that is ten times higher than the national average when compared to other ethnicities, and homicide stands as the third leading cause of death for Indigenous women in the U.S.²¹ The greater part of these crimes are committed by non-Natives on Native land, and the unclarity of jurisdictional lines allows the majority of these perpetrators to escape apprehension, which in turn, leaves the victims without an escape of their own from the trauma they are forced to endure in their deprivation of justice.²² In 2017 alone, 5,646 Native women were reported missing in the U.S.²³ In the state of Montana, Native citizens consist of 6.8% of the state's population, yet between 2016 and 2018, they comprised 26% of the state's missing person's reports.²⁴ Such explicit numbers do not furnish anything close to a complete depiction, as there is not a reliable source that maintains a complete record of the number of Native women considered missing or murdered in a given year.²⁵ Researchers have discovered misclassifications of Native women under the racial categories of Hispanic or Asian, whereas thousands of

^{19.} Id.

^{20.} Native American Issues Today / Current Problems & Struggles 2020, PowWows.com (Sept. 7, 2019), available at https://www.powwows.com/issues-and-problems-facing-native-americans-today/ (last visited Aug. 6, 2021).

^{21.} Murdered & Missing Indigenous Women, NATIVE WOMENS WILDERNESS, available at https://www.nativewomenswilderness.org/mmiw (last visited Aug. 6, 2021).

^{22.} See Carolyn Smith-Morris, Addressing the Epidemic of Missing & Murdered Indigenous Women and Girls, CULTURAL SURVIVAL (Mar. 6, 2020), available at https://www.culturalsurvival.org/news/addressing-epidemic-missing-murdered-indigenous-women-and-girls (last visited Aug. 6, 2021).

^{23.} Nick Martin, *The Connection Between Pipelines and Sexual Violence*, THE NEW REPUBLIC (Oct. 15, 2019), available at https://newrepublic.com/article/155367/connection-pipelines-sexual-violence (last visited. Aug. 6, 2021).

^{24.} Id.

^{25.} Jack Healy, In Indian Country, a Crisis of Missing Women. And a New One When They're Found., NY TIMES (Dec. 25, 2019), available at https://www.nytimes.com/2019/12/25/us/native-women-girls-missing.html (last visited Aug. 6, 2021).

others had been excluded from the federal missing-persons database altogether.²⁶

Moreover, the rate of aggravated assault among Native people is about twice the rate of the country as a whole.²⁷ Natives are also killed in police encounters at a higher rate than any other racial or ethnic group, and their deaths are less likely to garner public attention, which causes the Native American invisibility chronicle to become more solidified.²⁸ Here, the reported numbers of deaths from the data that is available likely do not capture all Native American deaths deriving from police encounters, due to people of mixed races and a relatively large homeless population that is "not on the grid."²⁹ Again, the limited jurisdiction of state and federal resources, in association with the insubstantial resources of the tribal governments and law enforcers, act as hurdles to the carrying out of any efficient investigation.³⁰

With such shortfalls in investigating such crimes, local law enforcement have become discouraged and hesitant in undertaking new cases, which leads to the spiraling effect of U.S. attorneys declining to prosecute 37% of cases that happen in "Indian Country." Of these cases that go unprosecuted, over a quarter are allegations of sexual assault against children and adults. To validate their calculated nonintervention, federal attorneys oftentimes cite to the reason of a lack of evidence in 70% of the cases they had chosen to drop. The U.S. Department of Justice's prosecution rate of crimes against Natives is viewed as a failure by several lawmakers, and as further confirmation of

²⁶ Id

^{27.} Mihir Zaveri, Killing of 5 on Indian Reservation Underscores Challenge With Violent Crime, NY TIMES (June 12, 2019), available at https://www.nytimes.com/2019/06/12/us/yakama-indian-reservation-killings.html (last visited Aug. 6, 2021).

^{28.} Elise Hansen, *The forgotten minority in police shootings*, CNN (Nov. 13, 2017), available at https://www.cnn.com/2017/11/10/us/native-lives-matter/index.html (last visited Aug. 6, 2021).

^{29.} Id.

^{30.} Martin, supra note 23.

^{31.} Id

^{32.} Elena Saavedrea Buckley, Feds fail to prosecute crimes in Indian Country, HIGH COUNTRY News (Nov. 29, 2018), available at https://www.hcn.org/articles/tribal-affairs-feds-fail-to-prosecute-crimes-in-indian-country (last visited Aug. 6, 2021).

^{33.} *Id*.

the federal government allowing Native victims to "fall through the cracks of our justice system." ³⁴

Within the provisions as provided in UNDRIP, Indigenous Peoples should be given the freedom to enjoy fundamental fairness and equality, while also being given the formal admission of their differences and their desires to be respected as such.³⁵ The Declaration reaffirms the inherent freedom from any form of discrimination, and it perceives the concern of "colonization and dispossession of their lands, territories and resources, thus preventing them from exercising, in particular, their right to development in accordance with their own needs and interests."36 It further emphasizes an "urgent need to respect and promote the rights of indigenous peoples affirmed in treaties, agreements and other constructive arrangements with States," while coincidingly being assured that "control by indigenous peoples over developments affecting them and their lands, territories and resources will enable them to maintain and strengthen their institutions, cultures and traditions."37 In accordance with UNDRIP's provisions, there exists an international guideline to which states should appropriately consult when coordinating their own domestic policies in the treatment of the state's Indigenous Peoples.

In the U.S., however, federal policies that address Native problems, especially in the criminal sector of domestic law, is predominantly deficient, and the legal practices that are in place fail in yielding effortful solutions to counter the foundational and historic causes of violent crimes that take place on Native reservations. There is purposeful neglect on the part of the government, and this inattention frustrates the exact duties the federal government holds in ensuring security to the nation's vulnerable indigenous populations as outlined in UNDRIP. The previous executions of discrimination continue to define the government's behavior towards Native groups, as it proceeds with the unchanged mindset of not focusing its policy motivations on administering genuine change on dire Native issues that remain, for the most part, invisible. The federal government's inaction in abiding by the UNDRIP has promote the systematic continuance of discrimination and disregard against Natives.

The federal government must prioritize Native issues in its consideration of enacting legislation that supplies tribal governments

^{34.} Mary Hudetz, Federal report: Indian Country criminal prosecutions plateau, THE ASSOCIATED PRESS (Nov. 21, 2018), available at https://apnews.com/article/f027ebe42d1d4bedb56994de78fc25e0 (last visited Aug. 6, 2021).

^{35.} G.A. Res. 61/295, United Nations Declaration on the Rights of Indigenous Peoples (Oct. 2, 2007) [hereinafter UNDRIP].

^{36.} Id.

^{37.} Id.

with required resources, while also aiming to organize and set distinct lines of jurisdiction so to as avoid future debates of whether tribal, state, or federal agencies possess the authority to initiate and pursue a criminal case that occurred on tribal lands. Such disputes have been the core reason for non-prosecution of violent perpetrators against Natives, and they have further triggered multiple delays in engaging in immediate proceedings of pursuing cases that could have ultimately led to some form of apprehension and remedy. This Note will consider the historical sources and events that developed and impacted current federal Native policies in addressing violent criminal activities against Natives, while also differentiating U.S. practices from the global incentives that various nations advanced for Indigenous Peoples in the passage of the UNDRIP. This note will also examine the types of violent crimes committed against certain groups of Natives, and the corresponding enforcement system that is unable to be properly utilized due to internal uncertainty and disagreements of who has jurisdictional control and the adequate resources.

Section II of this Note studies the history of the UNDRIP and the ventures that led to its eventual and extensive passage on the international sphere. Section III presents a historical overview of Native Reservations and tribal communities. Section IV discusses commissions of violent acts against Native populations, and how such acts reflect a modern yet still identical approach as to the historical acts that have been invariably perpetrated against Native Americans. Section V addresses the concern for the lack of investigations and subsequent prosecutions of violent crimes perpetrated on tribal lands. Section VI examines the question of jurisdiction, and how the ambiguous separations of distinctive authority create a confounding effect on miscommunication and subsequent delays, thus further prohibiting the achievement of needed justice. This Note concludes with considering possible solutions for future governmental policies that could better confront the issues of violence against Natives. In closing, the Note places heavy prominence on legislative enactments to be better aligned to the principles and commitments that are explicitly fostered within the UNDRIP. Only by doing so can the U.S. begin to rectify its past crimes and offenses towards Natives, and work towards nurturing a respectable and collaborative relationship for the future years to come.

HISTORY OF THE UN DECLARATION ON THE RIGHTS

OF INDIGENOUS PEOPLES

The UN Declaration on the Rights of Indigenous Peoples was the conclusion of a 25 years process of hard negotiations.³⁸ The efforts underlying the achievement of the Declaration originated from the studies conducted by José R. Martinez Cobo, who was appointed as Special Rapporteur of the Study of the Problem of Discrimination against Indigenous Populations.³⁹ His findings, titled the Cobo Report, which contained reviews of discrimination faced by indigenous peoples throughout the world.⁴⁰ The Report also relayed descriptions of the oppression, marginalization and exploitation suffered by indigenous peoples.⁴¹ After its scrutiny of the Cobo Report and upon agreement of a final text for a draft of a potential declaration, the Working Group submitted a first draft of a declaration on the rights of indigenous peoples to the Sub-Commission on the Prevention of Discrimination and Protection of Minorities.⁴² This initial draft was later approved in 1994 and then correspondingly sent to the UN Commission on Human Rights for further consideration and to commence a discussion.⁴³

States, however, viewed the draft of the declaration with slight suspicion, and many expressed their hesitations with regard to some of the core provisions of the draft declaration, namely the right to self-determination of all Indigenous Peoples and the control over natural resources existing on indigenous traditional lands.⁴⁴ In 2006, internal shifts within the UN were generated, and one of the outcomes was the replacement of the U.N. Commission on Human Rights with the U.N. Human Rights Council.⁴⁵ At length, the UN Human Rights Council adopted the Declaration on the Rights of Indigenous Peoples on June 29, 2006.⁴⁶ There formed, however, an initiative led by the state of Namibia, co-sponsored by a number of African countries, that resulted in the draft being amended to have the Assembly decide "to defer consideration and

^{38.} Celebrating 13 Years of the UN Declaration on the Rights of Indigenous Peoples, CULTURAL SURVIVAL (Sept. 12, 2020), available at https://www.culturalsurvival.org/news/celebrating-13-years-un-declaration-rights-indigenous-peoples (last visited Aug. 6, 2021).

^{39.} *Id*.

^{40.} Id.

^{41.} *Id*.

^{42.} United Nations: Dep't of Economic and Social Affairs, supra note 2.

^{43.} *ld*.

^{44.} Id.

^{45.} *Id*.

^{46.} *Id*.

action on the United Nations Declaration on the Rights of Indigenous Peoples to allow time for further consultations thereon."47

At long last, on September 13, 2007, the Declaration was adopted by a majority of 144 member states in favor, four states against, and 11 abstentions.⁴⁸ The four states initially voting against the Declaration were Australia, Canada, New Zealand and the U.S., conveying official explanations such as the Declaration going too far in giving Indigenous Peoples ownership of their traditional lands, veto rights over national legislation, and local management of resources.⁴⁹ The four states' own histories with their Indigenous populations may also have instigated an additional cause for their separate rejections. It was simple to see then that the basis for the opposing states to decide against the Declaration's approval was the apprehension of undermining their sovereignty of their own federal governments.⁵⁰ Nevertheless, Australia became the first to shift its position in support of the Declaration following an inner change in domestic government in 2009.⁵¹ New Zealand was the next to follow in adopting the Declaration in 2010, accompanied by Canada later that same year.⁵² To date, Canada has engaged in legitimate pursuits to formally implement the provisions of UNDRIP in consistency with Canadian domestic law.⁵³ Canada's federal Minister of Justice introduced Bill C-15 titled "An Act respecting the United Nations Declaration on the Rights of Indigenous Peoples," which would require the federal government, in consultation and cooperation with Indigenous peoples, to "take all measures necessary to ensure the laws of Canada are consistent with UNDRIP, prepare and implement an action plan to achieve UNDRIP's objectives, and table an annual report on progress to align the laws of Canada and on the action plan."54

^{47.} United Nations: Dep't of Economic and Social Affairs, supra note 2.

^{18.} Id.

^{49.} Warren Hoge, *Indigenous Rights Declaration Approved*, NY TIMES (Sept. 14, 2007), *available at* https://www.nytimes.com/2007/09/14/world/14briefs-nations.html (last visited Aug. 6, 2021).

^{50.} See Erin Hanson, UN Declaration on the Rights of Indigenous Peoples, INDIGENOUS FOUNDATIONS, available at https://indigenousfoundations.arts.ubc.ca/un_declaration_on_the_rights_of_indigenous_peoples/ (last visited Aug. 6, 2021).

^{51.} Cultural Survival, supra note 38.

^{52.} Id.

^{53.} Sharon Singh, Radha Curpen, Bradley Gilmour & Sean Assié, Canada: Federal Government Fulfills Promise To Introduce UNDRIP Legislation, MONDAQ (Dec. 9, 2020), available at https://www.mondaq.com/canada/indigenous-peoples/1013842/federal-government-fulfills-promise-to-introduce-undrip-legislation (last visited Aug. 6, 2021).

^{54.} Id.

This left the U.S. as the last state to reverse its opposing position on December 15, 2010.⁵⁵ Upon the announcement of the U.S.'s support of the UNDRIP, commentators quickly noted the lurking meaning behind the Administration's statements.⁵⁶ Many feared that there would no change, as this was another example of treaty promises made to someday be broken the moment the federal government placed precedence elsewhere.⁵⁷ Still, substantial exploits have been launched to aid and guide the steps towards implementation of the UNDRIP in the U.S.⁵⁸ Natives have also been involved in improved participations at a number of meetings of the world indigenous peoples that were held throughout 2015 and 2016.⁵⁹ Moreover in 2016, the UN passed a resolution that expanded Indigenous membership and representation at hearings, meetings, autonomy, and comprehensive responsiveness for the group.⁶⁰

The Declaration, however, left open many questions as to its implementation into domestic policy. It also presented supplemental questions of its precise purpose, and whether its terms were meant to be implemented at all, or simply subsist as vague international standards to which differing states could then offer up their own varying interpretations whilst not realizing the full enactment of the Declaration's provisions. In the U.S, such inquiries raised greater doubt as to the role the Declaration held when faced against settled domestic law. The legal principles within the Declaration were adopted by the nation in its acceptance of the international influence it was sure to deliver, but the realistic operation of this effect exerting any consequence in determining federal Native policy prevails in heavy doubt. In assessing the lasting practices of federal treatment towards Natives, the U.S. has failed in legislating legitimate policies that position its central endeavors on correcting the historical wrongs so that past deeds do not determine present conventions, especially in the current domain of criminal law with respect to Natives.

^{55.} Obama backs U.N. indigenous rights declaration, REUTERS (Dec. 16, 2010), available at https://www.reuters.com/article/idUSTRE6BF3RF20101216 (last visited Aug. 6, 2021).

^{56.} See PTLA, supra note 5.

^{57.} See id.

^{58.} See Kim Jerome Gottschalk, United Nations and Indigenous Peoples, NATIVE AMERICAN RIGHTS FUND, available at https://www.narf.org/cases/declaration-indigenous-rights-un/ (last visited Aug. 6, 2021).

^{59.} See id.

^{60.} See id.

HISTORICAL OVERVIEW OF NATIVE RESERVATIONS

Native tribal reservations were created by the federal government with the original intention to generate available expanses of land that the government possessed no legitimate stake in, nor held any justified legal rights of ownership in. Removal, however, of Natives from segments of attractive land, had to be met with a parallel solution that would result in relocation of thousands of Natives from their homelands. Therefore, the deprivation of the Natives of their historical lands, in the perspective of the federal government, was considered highly acceptable. This warped mentality would prove to be one of the most damaging moments of this nation's record.

Native reservations have and continue to hold a concentration of violence that initially was stirred by the enactment of unjustified federal policies. The Indian Removal Act signed in 1830 by President Andrew Jackson serves as the origin of government-sponsored Native relocation.⁶¹ The Removal Act allowed the federal government to exchange Native land in the "cotton kingdom" east of the Mississippi for land in the west; the lands which would be referred to as the "Indian colonization zone." Under the Removal Act, the relocation was legally required to be conducted fairly, voluntarily, and peacefully without the presence of any coercion upon the Native nations, but force was freely implemented against the Natives in order to vacate their generational lands for the incoming white settlers.⁶³

Several northern tribes relocated peacefully and resettled in the western lands that were deemed to be too undesirable for white farmers. ⁶⁴ A number of the southeastern tribes refused to depart from their cultivated lands to an unknown and strange land that existed as nothing more than a stated promise from the same individuals attempting to remove them to begin with. ⁶⁵ The U.S. military threatened complete invasion of the lands, and the Native were bound in chains and marched out of the territories, with many succumbing to disease and sickness along the way. ⁶⁶ In 1838, the Cherokee Natives were forced at bayonet points

^{61.} Trail of Tears, HISTORY.COM (Nov. 9, 2009), available at https://www.history.com/topics/native-american-history/trail-of-tears (last visited Aug. 6, 2021).

^{62.} Id.

^{63.} See id.

^{64.} *Indian Removal Act*, ENCYCLOPEDIA BRITANNICA, *available at* https://www.britannica.com/topic/Indian-Removal-Act (last visited Jan. 17, 2022).

^{65.} Trail of Tears, supra note 61.

^{66.} Id.

to march more than 1,200 miles to the government's resettled territories, journeying through what is forever marked as the Trail of Tears.⁶⁷ Despite the federal government's assurance that the Native's new lands would not be interfered with in any manner, the course of history revealed such expectations to be deceptions as the push towards white settlement in the west gathered haste federal support.

Settlers continued westward and the desire of more land instigated shades of the same past problems. In 1851, the Indian Appropriations Act was passed and devised the Indian reservation system that would last into the present days.⁶⁸ Congress provided funds to further transport Native tribes onto lands designated as farming reservations, but the frank purpose of such an Act was to retain a routinized control over the Native tribes.⁶⁹ Within the confines of these limited areas of space, Native tribes faced difficulty in attempting to keep alive their respective cultures and traditions.⁷⁰ The federal government paid no heed to the inherent differences and clashing relations of the various Native tribes, and oftentimes, feuding tribes were kept together.⁷¹

In 1887, the Dawes Act was enacted by President Grover Cleveland to sever the new tribal reservation lands. Assimilation became the driving mechanism as the federal government encouraged Natives to partake in farming and agricultural practices, causing a division of tribal territories into individual plots. Underlying the government's stated purpose, once again, was a program to confiscate over 90 million acres of tribal land from Natives, in order to then sell the lands to U.S. citizens. Soon enough, assimilation strategies proved to be a failure even in the government's eyes. The Dawes Act became replaced with the Indian Reorganization Act in 1934 that aimed to restore Native culture and return the remainder of the lands to the tribes. Through the Reorganization Act, the government initiated a shift in its purpose by stressing self-governance of tribes and the writing of their own

^{67.} Id.

^{68.} *Indian Reservations*, HISTORY.COM (Dec. 8, 2017), available at https://www.history.com/topics/native-american-history/indian-reservations (last visited Jan. 17, 2022).

^{69.} Id.

^{70.} Id.

^{71.} Id.

^{72.} The Dawes Act, NATIONAL PARK SERVICE, available at https://www.nps.gov/articles/000/dawes-act.htm (last visited Jan. 17, 2022).

^{73.} Id.

^{74.} Id.

^{75.} Indian Reservations, supra note 68.

constitutions.⁷⁶ In truth, however, the Reorganization Act only resurrected the previous relocation and reservation system that the government had in place, and this restoration of the past establishment is what constitutes the tribal reservations today.⁷⁷

At present, the interior structure and federal characterization of Native tribal reservations exist under the Bureau of Indian Affairs ("BIA"), and the reservations are set up through intersections of arbitrary divisions across tribal boundaries. Essentially, the Native tribes are compelled to remain dependent on the federal government through the endurance of the trust and trustee relationship that continues to define relations between the Natives and the government. 79 Congress, therefore, is the ultimate decisionmaker on determining the limits of tribal sovereignty, and the extent of the aid that is provided through federal policies. 80 The trust relationship has perpetuated extreme poverty on Native reservations, and it has kept their economic development relatively low in comparison to other demographic groups across the nation, as the legal ownership of all assets on Native reservations legally belong to the government.⁸¹ The fundamental basis on which the trust relationship relies on is a wrongful and misconceived belief that tribes are unable to manage their own lands and affairs. 82 This is an extremely outdated and flawed mindset, notably when tribes have demonstrated time and time again their successful capabilities in managing their own resources and benefiting the members of their respective tribes without the oversight of the federal government.⁸³ Furthermore, Article 3 and

^{76.} Id.

^{77.} The reservation system, KHAN ACADEMY, available at https://www.khanacademy.org/humanities/us-history/the-gilded-age/american-west/a/the-reservation-system (last visited Jan. 13, 2022).

^{78.} Matthew Williams, What life on a Native American reservation really looks like, HUCK MAGAZINE (Sept. 12, 2016), available at https://www.huckmag.com/art-and-culture/photography-2/native-american-reservation-pine-ridge-photography/ (last visited Jan. 13, 2022).

^{79.} See Tribal Sovereignty, PAUMA TRIBE, available at https://www.paumatriibe.com/government/tribal-sovereignty/ (last visited Jan. 14, 2022).

⁸⁰ See id

^{81.} Shawn Regan, 5 Ways The Government Keeps Native Americans in Poverty, FORBES (Mar. 13, 2014), available at https://www.forbes.com/sites/realspin/2014/03/13/5-ways-the-government-keeps-native-americans-in-poverty/?sh=2f2690c72c27 (last visited Jan. 14, 2022).

^{82.} Shawn Regan, Unlocking the Wealth of Indian Nations: Overcoming Obstacles to Tribal Energy Development, PERC (Feb. 18, 2014), available at https://www.perc.org/2014/02/18/unlocking-the-wealth-of-indian-nations-overcoming-obstacles-to-tribal-energy-development/ (last visited Jan. 14, 2022).

^{83.} Id.

Article 4 of the UNDRIP provide specific provisions of the "right to self-determination," and the "right to autonomy or self-government in matters relating to their internal and local affairs, as well as ways and means for financing their autonomous functions." The contemporary domestic policies of the U.S. have yet to reflect both of these Articles, as bureaucratic limitations restrict tribal sovereignty on Native reservations, while simultaneously determining the areas in which tribal governments can direct their own policies without the involvement of the overarching federal government.

THE ISSUE OF VIOLENT CRIMES ON NATIVE RESERVATIONS

The cost of the existence of tribal reservations, however, has proven to be fatal for the Natives who reside on such reservations. Violence has prevailed as a constant condition on most Native reservations, and much of the modern acts resemble an almost identical source that has consistently induced violence against Natives; economic greed and unclarity of legal enforcement and penalties. The violent crimes that befall Native reservations are mostly hidden behind undecided jurisdictional lines, raising consecutive questions of who has the exact authority to do what at which moment in time.

Presently, with the draw of resources and benefits from the Native lands, novel issues have come to light regarding the crimes committed on reservations. The level of violence against Native women occurs at a disproportionate rate when compared to the national average of other ethnicities, and homicide stands as the third leading cause of death for Native women in the U.S., trailing behind only cancer and heart disease. According to the Department of Justice, more than half of American Indian and Alaska Native women will experience sexual violence in their lifetimes. The legal system provides more failures than resolutions, as

^{84.} UNDRIP, *supra* note 35, at § 3-4.

^{85.} Leading Causes of Death - Females - Non-Hispanic American Indian or Alaska Native - United States, 2016, CDC (2016), available at https://www.cdc.gov/women/lcod/2016/nonhispanic-native/index.htm (last visited Jan. 14, 2022).

^{86.} Maren Machles, Carrie Cochran, Angela M. Hill, and Suzette Brewer, 1 in 3 American Indian and Alaska Native women will be raped, but survivors rarely find justice on

investigations into sexual assaults against Native women become hindered by the absence of much needed cooperation between tribes and federal governments.⁸⁷ For the few cases that do end up receiving a conviction in tribal court, federal law still holds the upper hand in preventing tribal courts from sentencing non-Native perpetrators to more than a single year.⁸⁸ Another component that is viewed as an epidemic is the growing number of disappearances of Native women. The unnerving accounts of missing and murdered Native American women and girls have sparked a movement to bring attention to the heinous acts that are committed the majority of times by non-Native individuals on Native land.⁸⁹ The core of the issue reverts back to the lack of communication between state, local, and tribal law enforcement, and agencies, with the consequences coming to bear on the victims themselves.

VIOLENCE AGAINST NATIVE WOMEN AND GIRLS

46% of Native women residing on tribal reservations are said to experience some form of physical abuse, sexual assault, stalking, or domestic violence in their lifetime. In their entirety, 84% of Native women are said to have experienced some form of violence in their lifetime. If always are victimes of domestic violence. Native women are said to experience violence at more than 10 times the national average, and due to the lack of communication and data sharing between the federal, state, county, municipal, and tribal levels of law enforcement, a series of hurdles must be faced when attempting to solve the criminal activities, obtain funding, and begin prevention efforts. A blatant example of such a hurdle is illustrated through the National Crime Information Center's 2016 data, in which the Center received 5,712 reports of missing

tribal lands, USA TODAY (Oct. 19, 2019), available at https://www.usatoday.com/story/news/nation/2019/10/18/native-american-women-sexual-assault-justice-issue-tribe-lands/3996873002/ (last visited Jan. 14, 2022).

^{87.} Id.

^{88.} Id.

^{89.} Murdered and Missing Indigenous Women, supra note 21.

^{90.} Native American Issues Today / Current Problems & Struggles 2020, supra note 20.

^{91.} Murdered and Missing Indigenous Women, supra note 21.

^{92.} Violence Against Women, NATIONAL CONGRESS OF AMERICAN INDIANS, available at https://www.ncai.org/policy-issues/tribal-governance/public-safety-and-justice/violence-against-women (last visited Jan. 14, 2022).

^{93.} Chelsea Dennis, *US Commits to Track Violence against Indigenous Women*, NON-PROFIT QUARTERLY (Oct. 15, 2020), *available at* https://nonprofitquarterly.org/us-commits-to-track-violence-against-indigenous-women/ (last visited Jan. 14, 2022).

American Indian and Alaska Native women and girls, but only two percent of the identical cases had been logged with the Department of Justice's federal missing persons database.⁹⁴ The prevalence of sexual assault and rape have been, and remain, under-reported, and it is near impossible to dictate an exact approximation of the frequency of such violent acts.⁹⁵

Violent sex offenders have continuously escaped punishment for their crimes perpetuated on tribal lands. 96 As observed by Grant Christensen, an Associate Justice for the Supreme Court of the Standing Rock Sioux Tribe, there is an apparent incentive on Native tribal lands for non-Native predators to specifically target Native women and girls with the knowledge that neither the given tribe nor the state can prosecute them, thus leaving only the federal courts and prosecutors that may be hours away in the city. Christensen recounted stories of individuals who enter a reservation and ask a woman whether they are Indian, and if she says no, these individuals will pass on a "potential target." 97 In contrast to other racial groups, Native American women are more likely to be sexually assaulted by people who are not Native American. 98 majority of rapes and sexual assaults against other women were intraracial, but the majority of victimizations against American Indian and Alaska Native women were more likely to be interracial. 99 Among Native women who are victims of sexual assault or rape, an average of 67% describe the offender as non-Native, and among Native women who are victims of assault, an average of 63% describe the offender as non-Native. 100

^{94.} Id.

^{95.} Id.

^{96.} Renee Cooper, Behind the grim statistics for sexual violence on reservations, KXNET (Dec. 16, 2020), available at https://www.kxnet.com/news/local-news/being-raped-is-a-right-of-passage-behind-the-grim-statistics-for-native-american-women/ (last visited Jan. 16, 2022).

^{97.} Id.

^{98.} Garet Bleir & Anya Zoledziowski, Murdered and Missing Native American Women Challenge Police and Courts, THE CENTER FOR PUBLIC INTEGRITY (Aug. 27, 2018), available at https://publicintegrity.org/politics/murdered-and-missing-native-american-women-challenge-police-and-courts/ (last visited Jan. 16, 2022).

^{99.} Police Insights Brief: Statistics on Violence Against Native Women, NATIONAL CONGRESS OF AMERICAN INDIANS (Feb. 2013), available at https://www.ncai.org/attachments/PolicyPaper_tWAjznFslemhAffZgNGzHUqIWMRPkCDj pFtxeKEUVKjubxfpGYK_Policy%20Insights%20Brief_VAWA_020613.pdf (last visited Jan. 16, 2022).

^{100.} Id.

As previously mentioned, cases documenting missing and murdered Indigenous women and girls have gone under-reported or unreported altogether. 101 This endures as a long-standing issue that is regrettably linked to inadequate resources, plain indifference, and a confusing iurisdictional maze. 102 Therefore, the statistics provided are conjectured estimates that are based on individual and independent studies and research projects undertaken by organization collaborations for gathering and condensing data. 103 One such report, the To' kee skuy' soo ney-wochek' (I Will See You Again In a Good Way) Year 1 Progress Report: MMIWG2 of Northern California, documents 2,306 missing Native American women and girls in the U.S., about 1,800 of whom were killed or vanished within the past 40 years. 104 According to the Progress Report. 60% of the cases are homicides and 31% involve girls 18 years old and younger. 105 Almost three-quarters of the cases consisted of victims who were living in the foster care system at the time they went missing. 106 To this day, the majority of these cases within the U.S., in addition to nearly 2,000 in Canada, remain unsolved. 107 The Urban Indian Health Institute (UIHI), a division of the Seattle Indian Health Board, undertook a study of assessing the number and type of cases of missing and murdered American Indian and Alaska Native women and girls in 71 urban cities in 29 states across the U.S.¹⁰⁸ UIHI found 506 unique cases of missing and murdered American Indian and Alaska Native women and girls in the selected 71 cities; 128 were missing persons cases, 280 were murder

^{101.} Sharon Cohen, #NotInvisible: Why are Native American Women vanishing?, THE ASSOCIATED PRESS (Sept. 6, 2018), available at https://apnews.com/article/cb6efc4ec93e4e92900ec99ccbcb7e05 (last visited Jan. 16, 2022). 102. Id.

^{103.} See generally Abby Abinanti, et. al., A Year 1 Project Report on Missing and Murdered Indigenous Women, Girls, and Two Spirit People of Northern California, (Jul. 2020) available at https://2a840442-f49a-45b0-b1a1-7531a7cd3d30.filesusr.com/ugd/6b33f7_a83c3e5d9fed4906b70413a985321ac4.pdf?index=t rue (last visited Jan. 16, 2022).

^{104.} Erik Ortiz, Lack of awareness, data hinders cases of missing and murdered Native American women, study finds, NBC NEWS (July 30, 2020, 2:18 PM), available at https://www.nbcnews.com/news/us-news/lack-awareness-data-hinders-cases-missing-murdered-native-american-women-n1235233 (last visited Jan. 16, 2022).

^{105.} Id.

^{106.} Id.

^{107.} Id.

^{108.} MISSING AND MURDERED INDIGENOUS WOMEN & GIRLS: A snapshot of data from 71 urban cities in the United States, URBAN INDIAN HEALTH INST., available at https://www.uihi.org/wp-content/uploads/2018/11/Missing-and-Murdered-Indigenous-Women-and-Girls-Report.pdf (last visited Jan. 11, 2022).

cases, and 98 had an unknown status. 109 A case was flagged as "status unknown" when law enforcement was able to provide a number of total cases to a request for records, but did not specify how many of those cases were missing persons cases and how many were murdered persons cases. 110 Additionally, the "status unknown" classification was also applied to cases that had previously been listed on a missing persons database but had since been removed for undesignated reasons, and UIHI could not verify whether the women or girls had been safely located or had since then deceased.¹¹¹ The cities with the highest number of missing and murdered Indigenous women and girls cases were Seattle, Albuquerque, Anchorage, Tucson, Billings, Gallup, Tacoma, Omaha, Salt Lake City, and San Francisco. 112 In consideration of the disparaging absence of communication and cooperation between all levels of government, advocates have called for better tracking systems that extend across the national sphere to account for missing and murdered reports of Indigenous women and girls in every state. 113 Any and all currently publicized reports exist as estimates, and are likely to severely undercount the actual numbers of missing and murdered Indigenous To contend with this inadequacy, Native leaders have acknowledged that the data will never be 100 percent in terms of comprehensiveness, but that is "...what we need to strive for in order to protect our mothers, daughters, sisters, and aunties."114

With this understanding, it becomes an evident tragedy to witness the disregard of the federal government in attending to the terms of the UNDRIP. In reference to Article 22, the UNDRIP states that, "Particular attention shall be given to the rights and special needs of indigenous elders, women, youth, children, and persons with disabilities." The Article continues to call forth states to "take measures...to ensure that indigenous women and children enjoy the full protection and guarantees against all forms of violence and discrimination." With the steady increase of unexplained violence and disappearances against Native women in the U.S., the ironic complementary of insufficient reporting and evidence-gathering is nothing short of an affront to the victims, their families, and their tribal communities.

^{109.} Id.

^{110.} *Id*.

^{111.} *Id*.

^{112.} *Id*.

^{113.} Urban Health Institute, supra note 108.

^{114.} *Id*

^{115.} UNDRIP, supra note 35, at § 22.

^{116.} *Id*.

VIOLENCE IN CONNECTION WITH "MAN CAMPS" AND BORDERTOWNS

With the discovery and growth of oil and fracking industries on Native tribal reservations, tribal communities have been disrupted in devastating ways. Following an oil or gas boom, tens of thousands of transient workers come into temporary housing units labeled "man camps" that are set up on or near tribal lands. The man camps are also described as "work-camp modular housing," and are constructed for well-paid, typically male laborers who oversee the building of pipelines that cut through rural tribal nation lands and Native communities. Within a short period of time, these camps flow into small Native communities and consist of individuals who aim to cash in on high-paying fracking and pipeline jobs. The dark side of the booms are demonstrated by the sudden climate of crime and impunity that these once-quiet communities are now forced to face in light of the massive energy development projects. The dark side of the massive energy development projects.

There is a consistent pattern between the presence of man camps and oil/pipeline projects, with the increase of the presence of drugs, crimes, and violence against Native women.¹²¹ To Native residents, there is an unequivocal connection between man camps and missing and murdered Native American women.¹²² The unforeseen and uncontrolled increase in the booming industries on Native lands have precipitated more traffic of those individuals who are experiencing high cash inflow on vast expanses of rural lands, and several submitted reports have documented the connection between extreme resource extraction and violence against nearby Natives.¹²³ Multiple studies have shown that man camps bring

^{117.} Garet Bleir & Anya Zoledziowski, *The missing and murdered: 'We as Native women are hunted,'* INDIANZ (Aug. 27, 2018), *available at* https://www.indianz.com/News/2018/08/27/the-missing-and-murdered-we-as-native-wo.asp (last visited Jan. 11, 2022).

^{118.} Martin, supra note 23.

^{119.} Steve Bynum & Jerome McDonnell, Rapes and Murders Of Indigenous Women At Oil And Fracking 'Man Camps', WBEZ CHICAGO (Mar. 13, 2018), available at https://www.wbez.org/stories/rapes-and-murders-of-indigenous-women-at-oil-and-fracking-man-camps/5e741ac4-a51d-4ab9-bebf-e54c8d1788ce (last visited Jan. 11, 2022).

^{120.} Id.

^{121.} Drew Novak, Fear Next Door; The man camp connection, NATIVE NEWS (2019), available at https://nativenews.jour.umt.edu/2019/fort-peck/ (last visited Jan. 11, 2022).

^{122.} Id.

^{123.} Fossil Fuel Extraction Dangers: Native American and Women's Organizations Request UN Help on Sexual Violence, INDIAN COUNTRY TODAY (May 12, 2015), available at

violence in places where it would not otherwise be, and the sudden presence of the camps in a given area rapidly increases the population and strains law enforcement and human services. These attendant burdens in turn affect rural tribal areas where law enforcement already encounter a deficiency in its ability to provide services to extensive swaths of land. The increase in population leads to a parallel increase in physical and sexual violence, assault, and sex trafficking in the affected communities. The increase in physical and sexual violence, assault, and sex trafficking in the affected communities.

One significant example of the harmful consequences that result is illustrated by the effects that were confronted by the Fort Berthold Reservation in North Dakota and Montana at the time of the Bakken oil boom. 127 In the mid-2000's, North Dakota experienced a large oil boom that caused wells to spring up along the edges of the Fort Berthold Reservation, an area composed of prairie and rolling hills three times larger than the size of Los Angeles. 128 The Bakken region made up 200,000 square miles along the Montana-North Dakota state line, and the area is home to the Assiniboine and Sioux nations of the Fort Peck Indian Reservation in Montana, and the affiliated Mandan, Hidatsa and Arikara tribes who are collectively known as the MHA Nation. 129 Soon, the sight of derricks and tanks full of crude oil, pipes, gas flares, and semi-trucks were encompassing the once empty stretches of land. 130 The peak of the Bakken oil boom occurred in 2012, and oil and gas infrastructure in the Bakken area included domestic violence shelters and a new FBI office, in addition to the appointment of two new special prosecutors to handle crimes against women, and the launching of a human trafficking task

https://indiancountrytoday.com/archive/native-american-and-women-s-organizations-request-un-help-on-sexual-violence-_srxHIWjqEmyrmz9OPMmZw (last visited Jan. 14, 2022).

^{124.} Violence from Extractive Industry 'Man Camps' Endangers Indigenous Women and Children, UNIV. OF COLORADO, BOULDER: FIRST PEOPLES WORLDWIDE (Jan 29, 2020), available at https://www.colorado.edu/program/fpw/2020/01/29/violence-extractive-industry-man-camps-endangers-indigenous-women-and-children (last visited Jan. 14, 2022).

^{125.} Id.

^{126.} Id.

^{127.} Valerie Volcovici, Red tape chokes off drilling on Native American reservations, REUTERS (Jan. 27, 2017), available at https://www.reuters.com/article/us-usa-trump-tribes-regulations-insight/red-tape-chokes-off-drilling-on-native-american-reservations-idUSKBN15B0E7 (last visited Jan. 14, 2022).

^{128.} Id.

^{129.} Bleir & Zoledziowski, supra note 98.

^{130.} Alleen Brown, A New Film Examines Sexual Violence as a Feature of the Bakken Oil Boom, The Intercept (July 1, 2018, 11:30 AM), available at https://theintercept.com/2018/07/01/nuuca-bakken-oil-boom-sexual-violence/ (last visited Jan. 14, 2022).

force.¹³¹ Attacks on Native women increased with the flood of transient oil workers, as interactions between the Natives and non-Native oil workers were considered by Native residents to be inevitable.¹³² According to MHA Nation victim services workers, "It was the transient workers that were committing these crimes ... and with the arrival of all of these men, the rape victimization had tripled."¹³³

In 2019, the U.S. Bureau of Justice Statistics concluded its study on violent crimes in the Bakken oil-producing regions of the two states, and found that from 2006 to 2012, the rate of violent victimization, particularly of aggravated assault, increased 70%, and violent victimization by strangers increased by 53% in the Bakken region. ¹³⁴ Conversely, the study found that there was no corresponding increase in violent crime in the surrounding counties outside of the Bakken oil region, and instead, found that reports of violent victimizations in non-Bakken counties were down 8% during this boom period. ¹³⁵

Similar concerns arose once President Donald Trump made it a priority for his administration to issue permits for the highly disputed Keystone XL pipeline that would carry oil sands 1,200 miles from the Canadian province of Alberta down to the state of Nebraska. The project was first proposed in 2008 and was estimated to conceivably cost \$8 billion. It had long been the cause of intense controversy involving economic development groups and environmental protectionist organizations. The Obama administration rejected the project, but Trump revived it during his time in office. Native tribes along the pipeline route had argued that burning oil sands would worsen climate change, and that the pipeline could spill over into natural waterways and Native sacred lands, as the original Keystone Pipeline System had

^{131.} Id.

^{132.} Bleir & Zoledziowski, supra note 98.

^{133.} *Id*.

^{134.} University of Colorado, Boulder: First Peoples Worldwide, *supra* note 124.

^{135.} Id.

^{136.} Keystone XL pipeline: Why is it so disputed?, BBC NEWS (Jan. 21, 2021), available at https://www.bbc.com/news/world-us-canada-30103078 (last visited Jan. 14, 2022).

^{137.} Matthew Brown, *Trump administration approves Keystone pipeline on U.S. land*, PBS NEWS HOUR (Jan. 22, 2020), *available at* https://www.pbs.org/newshour/nation/trump-administration-approves-keystone-pipeline-on-u-s-land (last visited Aug. 6, 2021).

^{138.} Id.

^{139.} Id.

^{140.} Melissa Denchak, What Is the Keystone XL Pipeline?, NAT'L RES. DEF. COUNCIL (Jan. 21, 2021), available at https://www.nrdc.org/stories/what-keystone-pipeline (last visited Jan. 17, 2022).

leaked more than a dozen times in the past. 141 In 2018, the Native communities of the Fort Belknap of Montana and the Rosebud Sioux Tribe of South Dakota sued the Trump administration, quoting the administration's failure to adhere to historical treaty boundaries and bypassing environmental impact analyses.¹⁴² The Keystone project presented other worries in addition to the economic and environmental impacts, as the oil and construction industries would have created thousands of temporary jobs in which the presence of thousands of transient workers would have likely resulted in an increase in violence in Native communities.¹⁴³ On January 20, 2021, however, President Biden signed an Executive Order revoking the Keystone XL pipeline permit previously issued by the Trump administration.¹⁴⁴ Environmental groups, both domestically and internationally, and Native activists applaud Biden's decision. 145 Tribal members viewed the pipeline as a threat to their drinking water sources and irrigation systems, and as an upfront to their ancestors' previous treaties that were entered into with the federal government. 146 Although Biden's decision is considered to be a step in the right direction, many recognize the necessary perseverance to continue making headway in the campaign for long-term solutions to safeguard the rights and protections of Native communities. Native advocates are continuing to urge Biden to shut down other controversial fossil fuel pipelines, including the Dakota Access pipeline ("DAPL"), which was arguably sanctioned without conducting legally required consultations with Native communities. 147 The Standing Rock Sioux

^{141.} Id.

^{142.} Vanessa Romo, Native American Tribes File Lawsuit Seeking to Invalidate Keystone XL Pipeline Permit, NPR (Sept. 10, 2018), available at https://www.npr.org/2018/09/10/646523140/native-american-tribes-file-lawsuit-seeking-to-invalidate-keystone-xl-pipeline-p (last visited Jan. 17, 2022).

^{143.} See Abaki Beck, For Indigenous Women, More Pipelines Mean More Threats of Sexual Violence, THE REVELATOR (Oct. 10, 2019), available at https://therevelator.org/fossil-fuel-indigenous-women/ (last visited Jan. 17, 2022).

^{144.} Tribes Respond to KXL Pipeline Termination, NATIVE AM. RTS. FUND (Jan. 20, 2021), available at https://www.narf.org/keystone-xl/ (last visited Jan. 17, 2022).

^{145.} See Rob Gillics, Keystone XL pipeline halted as Biden revokes permit, THE ASSOCIATED PRESS (Jan. 20, 2021), available at https://apnews.com/article/joe-biden-alberta-2fbcce48372f5c29c3ae6f6f93907a6d (last visited Jan. 17, 2022).

^{146.} Nora Mabie, Montana tribal members, fearing water contamination, relieved as Keystone XL pipeline blocked, USA TODAY (Jan. 21, 2021), available at https://www.usatoday.com/story/news/nation/2021/01/21/montana-tribes-react-president-biden-blocks-keystone-xl-pipeline/6659608002/ (last visited Jan. 17, 2022).

^{147.} Nina Lakhani, 'No more broken treaties': indigenous leaders urge Biden to shut down Dakota Access pipeline, THE GUARDIAN (Jan. 21, 2021), available at

tribe of North Dakota rallied support for its campaign to stop the DAPL from being built on tribal lands, and as of now, the legal battles are still in progress in order to decide the fate of the roughly 470,000 barrels of crude oil that are currently being transported by pipeline. ¹⁴⁸

Likewise, the Line 3 pipelines portray another broken promise on the part of the federal government, as it also fails to honor the past treaties between the Ojibwe people and the U.S. 149 Located in Minnesota, Line 3 runs nearly 400 miles long and cuts across the Fond du Lac reservation. 150 Line 3 has also utilized monetary tactics towards the communities that run along the pipeline's route through donations, jobs, tax revenues, and money for local policing and local advertisements.¹⁵¹ The difference in approaches is unnerving, as at Standing Rock, pipeline owners and law enforcement posed no hesitation in using rubber bullets, water cannons, and tear gas against protesters. 152 Enbridge, the Canadian energy transportation company heading the Line 3 pipelines project, seemingly accepts the notion that they cannot win over the hearts and minds of all the Native people, but according to Anton Treuer, professor of Ojibwe language at Bemidji State University in Minnesota, the company does not have to. 153 According to Professor Treuer, "if they can win over just enough to clear enough hurdles to get the next easement or next little contract or permit approved, they know they'll be able to get their work Enbridge has further contracted private agreements for undisclosed sums and offered contracting, training and job opportunities

https://www.theguardian.com/us-news/2021/jan/21/dakota-access-pipeline-joe-biden-indigenous-environment (last visited Jan. 17, 2022).

^{148.} Nina Lakhani, Dakota access pipeline: court strikes down permits in victory for Standing Rock Sioux, THE GUARDIAN (Mar. 25, 2020), available at https://www.theguardian.com/us-news/2020/mar/25/dakota-access-pipeline-permits-court-standing-rock (last visited Jan. 17, 2022); see also David Blackmon, First Keystone XL, Now Dakota Access: Pipeline Politics Swirl Around Biden, FORBES (Feb. 10, 2021), available at https://www.forbes.com/sites/davidblackmon/2021/02/10/first-keystonexl-now-dakota-access-pipeline-politics-swirl-around-biden/?sh=404664b10c1a (last visited Jan. 17, 2022).

^{149.} Sheila Regan, 'It's cultural genocide': inside the fight to stop a pipeline on tribal lands, THE GUARDIAN (Feb. 19, 2021), available at https://www.theguardian.com/usnews/2021/feb/19/line-3-pipeline-ojibwe-tribal-lands (last visited Jan. 17, 2022).

^{150.} Mary Annette Pember, Enbridge Line 3 divides Indigenous lands, people, INDIAN COUNTRY TODAY (Feb. 19, 2021), available at https://www.mprnews.org/story/2021/02/24/enbridge-line-3-divides-indigenous-lands-people (last visited Jan. 17, 2022).

^{151.} Id.

^{152.} Id.

^{153.} Id.

^{154.} Id.

for Fond du Lac Band reservation members.¹⁵⁵ This in turn has left Native residents to question whether voicing their oppositions would thwart the distribution of the monthly per capita payment checks the Band makes in the amount of \$400 using Enbridge funds, especially during a time when the pandemic has strained tribes and left them with severe inadequacies to attend to the economic shutdown.¹⁵⁶ Protesters have opposed Line 3, contending that the pipeline would pollute sensitive waterways and spill into wild rice and other ecosystems in the region.¹⁵⁷ This would present future threats to the Ojibwe traditional act of "making rice," which serves as a tangible expression of the Ojibwe relationship with the earth; "one of sustainability and commitment to ensuring resources are protected and available for future generations."¹⁵⁸ As well as the environmental and cultural impacts induced through repeated broken treaties, there is also the concern of rising violence perpetrated by the pipeline workers.

Multiple allegations of sexual assault and harassment have been attributed to Line 3 workers, and local businesses have increased calls and reports of sexual harassment since construction began in December.¹⁵⁹ In order to receive state permits, Enbridge was also required to create a public safety fund to cover costs associated with antihuman trafficking efforts in adjacent areas of construction and temporary residency.¹⁶⁰ Besides this and despite Enbridge's implementation of mandatory human trafficking and sexual harassment training programs, former pipeline workers revealed witnessing a rampant culture of misogyny and sexual harassment at Line 3 sites.¹⁶¹ The trainings lack in ensuring substantive instruction, as each training is comprised of a single 20-minute video without a final agreement or test of acknowledgement of the information.¹⁶² The programs act as awareness videos, easily passed over and casually disregarded by both workers and Enbridge management.¹⁶³

^{155.} Pember, supra note 150.

^{156.} Id.

^{157.} Id.

^{158.} Id.

^{159.} Candice Bernd, Exploiting More Than the Land: Sex Violence Linked to Enbridge Line 3 Pipeliners, TRUTHOUT (Mar. 16, 2021), available at https://truthout.org/articles/exploiting-more-than-the-land-sex-violence-linked-to-enbridge-line-3-pipeliners/ (last visited Jan. 17, 2022).

^{160.} Id.

^{161.} *Id*.

^{162.} Id.

^{163.} Id.

The connection between the extractive industries and violence against Native women and Native communities is not a novel recognition. In 2019, Canada's National Inquiry into Missing and Murdered Indigenous Women and Girls released a 1,200-page report that condensed three years of community hearings, story gathering, and forensic research. 164 The report demonstrated a strong link between extraction zones on the missing and murdered women crisis in Canada, and it specifically explained rotational shift work, sexual harassment in the workplace, substance abuse, economic insecurity, and a large transient workforce as contributing to increased violence against Native women in communities near fossil fuel infrastructure. 165 A number of Native leaders, such as the Executive Director of the Sovereign Bodies Institute, Annita Lucchesi, have brought attention to the harmful culture that is manufactured by the conjured logic of upturning the natural waterways and lands that translates into an analogous pattern of abuse and violence. 166 As Lucchesi asserts, the thought process of such individuals is simple; "If you can use and abuse the water and land, you can use and abuse the people around you too."167

In evaluation of crimes against Natives in the context of extraction companies' expansions, the federal government evidently has aligned its policies alongside economic interests, and there remains considerable efforts to be initiated for violence against Indigenous peoples, especially Indigenous women, to be curtailed. Such federal actions are attached to the treatment of Native lands, and the allowance of industries to misuse traditional Native lands for a non-consented purpose is in direct opposition to the UNDRIP's commitments of states cooperating "in good faith before adopting and implementing legislative or administrative measure that may affect [Indigenous peoples]."168 UNDRIP further emphasizes that Indigenous groups have the "right to the conservation and protection of the environment and the productive capacity of their lands or territories and resources." 169 With the growing threats posed by the construction of unnatural pipelines through the upheaval of traditional lands, environmental dangers increase and natural waterways are contaminated, as in direct contrast to the Natives' right of states taking "effective measures to ensure that no storage or disposal of hazardous

^{164.} Beck, supra note 143.

^{165.} Id.

^{166.} Id.

^{167.} Id.

^{168.} UNDRIP, supra note 35, at § 19.

^{169.} Id. at § 29(1).

materials shall take place in the lands or territories of indigenous peoples without their free, prior and informed consent." Most notably, and perhaps most disturbingly, the UNDRIP seemingly foretold the perils that would emerge with industrial proposals and operations, as in Section 32(2), the UNDRIP called for states to obtain the Indigenous peoples' free and informed consent prior to the approval of any project affecting their lands or territories." ¹⁷¹

VIOLENCE IN POLICE ENCOUNTERS

Excessive police force against minority groups in the U.S. remains a core issue the federal government has failed to remedy on all fronts. The invisible narrative that Natives endure is further induced by the majority of their violent stories proceeding unnoticed. Statistically, Natives are killed in police encounters at a higher rate than any racial or ethnic group. ¹⁷² In a given group of every one million Natives, 2.9 have died annually from 1999 to 2015 due to "legal intervention," with the main cause of these deaths resulting from police shootings. ¹⁷³ This reveals a mortality rate that is 12% higher in comparison to African-Americans, and three times that of whites. ¹⁷⁴ In some instances, the investigations into cases of fatal use of police force have been ruled as justified, whereas the identical encounters portray a different story when caught on video of excessive or inappropriate use of force. ¹⁷⁵

A number of factors are attributed to the growing statistic of Native killings at the hands of law enforcement. The lack of mental health services for Natives has exacerbated the issue without concern for addressing the central cause, as nearly half of the Native victims had histories of mental illness. There is also the historical and continued strained relationship between Natives and non-Native police officers, as the murky jurisdictional designations place a number of tribal reservations within the confines of non-tribal authorities. Distraught individuals become particularly vulnerable when placed in tense

^{170.} Id. at § 29(2).

^{171.} Id. at § 32(2).

^{172.} Hansen, supra note 28.

^{173.} Id.

^{174.} *Id*.

^{175.} Id.

^{176.} Sarah Tory, *Police shootings of Native Americans spark a movement*, HIGH COUNTRY NEWS (May 22, 2017), *available at* https://www.hcn.org/articles/tribal-affairs-native-lives-matter-a-movement-emerges (last visited Jan. 17, 2022).

^{177.} Id.

encounters with those who harbor certain prejudices. Treatment as second-class citizens by both police and public agencies highlights a shared experience of Natives with the entirety of minority communities in the U.S., and the discrimination experienced on reservations is reminiscent of historically documented events in which Natives are overcome with unnecessary and lethal force with no proper means of a justified counter and cure.

The frequency of police brutality against Natives is not a novel occurrence. Natives consider such violence to be an echo of what they have had to endure for centuries. However, mainstream U.S. media does not report on the Native killings, and the actual number of Native deaths by law enforcement is likely much higher than what is able to be discovered by conducted studies. The issue of underreporting is a hindrance, and it may be at times that Native deaths just go unrecorded altogether. The remoteness of rural reservations and border towns are scarce in media coverage, and in the cases when media reports cover Native killings, they are often misidentified as another race.

Native activists have led movements to call attention to the high rates of violence against Natives at the hands of law enforcement. They seek to hold the involved police accountable for their actions, despite whether the victim is Native or non-Native. Activists also seek to spotlight the unrecognized Native deaths that are rarely covered by the media. The activist campaigns and protests have been inspired by the recent Black Lives Matter movements that were aimed at emphasizing police brutality against vulnerable minority individuals, and the overall systematic racial injustice underlying the killings. 184

The UNDRIP affords Indigenous peoples the "right to be free from any kind of discrimination." This fundamental right should withhold a standing on its own, but the federal government has yet to implement

^{178.} Id.

^{179.} Id.

^{180.} Id.

^{181.} Tory, supra note 176.

^{182.} Stephanie Woodard, *The Police Killings No One Is Talking About*, IN THESE TIMES (Oct. 17, 2016), *available at* https://inthesetimes.com/features/native_american_police_killings_native_lives_matter.html (last visited Jan. 15, 2022).

^{183.} Police Killings Against Native Americans Are Off the Charts and Off the Radar, EQUAL JUSTICE INITIATIVE (Oct. 31, 2016), available at https://eji.org/news/native-americans-killed-by-police-at-highest-rate-in-country/ (last visited Jan. 15, 2022).

^{184.} *Id*.

^{185.} UNDRIP, *supra* note 35, at § 2.

this provision, along with other similar provisions, into domestic policy that goes to Native treatment. The UNDRIP further secures the "rights to life, physical and mental integrity, liberty and security of person." ¹⁸⁶ In view of the past and current brutalities against Natives and Native communities, federal policies have been severely inadequate in their attempts to eradicate themselves from past inequities.

LACK OF INVESTIGATIONS AND REFUSALS OF PROSECUTIONS

Native women on tribal reservations are said to lack the most government protections from threats of violence made against them. 187 U.S. federal attorneys declined to prosecute nearly 52% of violent crimes that occurred in Native country, and 67% of the cases that were declined were sexual abuse related cases. 188 The Department of Justice reserves to itself the responsibility of prosecuting the most serious crimes that occur on Native tribal reservations. 189 The Department, however, has been responsible in filing charges for only half of the murder investigations from Native Country, and it declines generally two-thirds of all sexual assault cases that are sent by tribal law enforcement. 190

In 2017 alone, the Department released a report that revealed the U.S. Attorney Offices had declined to prosecute 37% of Indian Country cases they deemed resolved within that same year, usually citing insufficient evidence. The low rate of prosecutions have exuded a dangerous effect on tribal communities, as it amounts to a second-class system of justice that provokes law-breaking. Without the necessary prosecutions, witnesses and victims are left without any sense of relief, as they have directly experienced the failings of the justice system for not delivering the proper resolutions. Family and communal tribal members are given no relief and no explanation as to the majority of disappearances or murders that occur on their own tribal lands, and the probability of novel crimes and criminal retaliation are heightened as the government's

^{186.} Id. at § 7.

^{187.} NATIONAL CONGRESS OF AMERICAN INDIANS, supra note 99.

¹⁸⁸ *Id*

^{189.} Timothy Williams, *Higher Crimes, Fewer Charges on Indian Land*, NY TIMES (Feb. 20, 2012), *available at* https://www.nytimes.com/2012/02/21/us/on-indian-reservations-higher-crime-and-fewer-prosecutions.html (last visited Jan. 15, 2022).

^{190.} Bleir & Zoledziowski, supra note 98.

^{191.} *Id.*

^{192.} Williams, supra note 189.

passivity towards Native crimes conveys an all too clear message: perpetrators will not face justice.

The explanation for the low number of prosecutions, as provided by federal prosecutors regularly, is that such cases lack admissible evidence. 193 Another reason for the low number of prosecutions can again be attributed to limited data collection and lack of clear protocols for authorities' handling of cases, which have in part hampered investigations, prosecutions, and strategic crime-fighting in Native American communities, according to Senator Tom Udall who serves as the vice chairman of the Senate Committee on Indian Affairs. 194 There are also a plethora of obstacles that exist in the federal management of Native cases. For major crimes like murder or child abuse, victims and witnesses have to travel long distances just to provide a testimony in federal court. 195 Federal investigators and prosecutors are also distinctly separated from tribal communities, as they are not based in Native reservations and therefore, are unable to foster meaningful relationships with the Native individuals they are meant to legally serve. 196 This causes a disconnect between those who should be the executioners of necessary justice, and those who are in need of that justice being efficiently and wholly administered, as both sides view the other as strangers who are unaware of the lives at stake.¹⁹⁷ Most disappointingly, there is a fundamental lack of care and awareness, and the tribal communities interpret the inactions of the federal government as a purposeful statement that nothing will be done for the crimes.¹⁹⁸ The acute frustration of some tribal members is understandable, and some have gone to sue the government for declining prosecutions and "sloppy police work."¹⁹⁹ Natives sense that the federal officers place the shame and blame on the individuals reported to be missing, as some have received formal responses that suggest that the missing person may soon show up as the individual was out drinking and, "probably took up with some man."200 For other Native families, they have decided to take the matter into their own hands and have launched their own investigations and

^{193.} Id.

^{194.} Hudetz, supra note 34.

^{195.} Buckley, supra note 32.

^{196.} Id.

^{197.} Id.

^{198.} Williams, supra note 189.

^{199.} *Id*.

^{200.} Cohen, supra note 101.

search parties, and have since created their own missing persons posters as the government did not publish the case in their official database.²⁰¹

Despite the initiation of programs and attempts to increase overall public safety and prosecutions on tribal lands, there have not been any significant changes in the recent years of the Department's prosecution record for Native Country crimes. 202 There is still no sense of urgency in closing cold cases, and there is no noticeable drive for federal investigators to present any sort of explanation or discovery in connection to such cases.²⁰³ One solution to contend with the lack of prosecutions is to provide more funding and the resources necessary to support additional investigators, tribal courts, and forensic work in crime laboratories, which would all contribute to an increase in prosecutions.²⁰⁴ In extension of this, U.S. attorneys should staff their national offices with special prosecutors that focus exclusively on crimes that are perpetrated in "Indian Country." 205 Another solution is to send the cases directly to tribal courts, which already is considerably more effective in representing the recognition of tribes' sovereignty and ability to handle cases locally. 206 Recently, tribal courts have increased their own prosecutions of non-Native offenders, but tribal prosecutors are still restricted due to jurisdictional constraints.²⁰⁷ On top of that, any such solutions must begin with federal programs that specifically go to improving policing and prosecutions in tribal communities, and this must begin by initial awareness of the absent prosecutions and a push for legislation to change this.

THE ISSUE OF CRIMINAL JURISDICTION ON NATIVE RESERVATIONS

Tribal reservations possess an intricate jurisdictional scheme that is comprised of imprecise distinctions of authority. For decades and still today, Native tribes are confiscated of the right to arrest and prosecute non-Natives who commit crimes on Native land.²⁰⁸ If the perpetrator is non-Native and the victim is Native, then a federally certified agent is the sole authority as the federal government has jurisdiction, rather than the

^{201.} Id.

^{202.} Hudetz, supra note 34.

^{203.} Cohen, supra note 101.

^{204.} Hudetz, supra note 34.

^{205.} Id.

^{206.} Id.

^{207.} Buckley, supra note 32.

^{208.} Crane-Murdoch, supra note 10.

state or tribal governments.²⁰⁹ If the opposite was true and the perpetrator was Native and the victim was non-Native, then a tribal officer may make the arrest, but the case must go to federal court.²¹⁰ If both parties are Native tribal members, a U.S. attorney generally takes the case despite tribal courts having the authority to prosecute tribal members for crimes committed on reservations, as tribal courts still do not have the authority to execute sentences onto defendants that are more than three years in prison.²¹¹ As expected, such jurisdictional entanglements compound the existing difficulties in prosecuting crimes committed on tribal reservations, further delaying the enactment of justice for the victims.²¹²

On tribal reservations, the default authority would usually rest with tribal police and investigators from the BIA.²¹³ The FBI, however, investigates certain serious offenses, depending on whether the perpetrator or the victim were tribal members or not, and if there is sufficient evidence, the Department of Justice will have the authority to prosecute major felonies that occur on tribal lands.²¹⁴ Initially, the legal rules appear to be straightforward. A deeper view of jurisdictional practices on Native reservations reveals complications of overlapping authority and differing laws depending on the crime, whether it occurred on reservation lands, and whether a tribal member is the victim or perpetrator.²¹⁵ Essentially, such jurisdictional laws amount to non-Native criminals not being arrested or prosecuted by the correct authorities if they commit a crime against a Native on reservation land, which results in the lack of necessary prosecutions. In other words, if a non-Native individual commits murder or rape against a Native individual, the federal government will have jurisdiction instead of the tribe or state, and most of the time, the federal government will not decide the case immediately, and predominantly, it will decline to prosecute.²¹⁶

Because of the jurisdictional perplexities, many reservations experience the crimes perpetrated against their communities as slipping through the "jurisdictional cracks." Questions arise as to where a Native individual should go to file a report, or to which legal officer they

^{209.} Id.

^{210.} Id.

^{211.} Id.

^{212.} Id.

^{213.} Cohen, supra note 101.

^{214.} Id.

^{215.} Id.

^{216.} Williams, supra note 189.

^{217.} Crane-Murdoch, supra note 10.

should notify upon the occurrence of a crime.²¹⁸ It still stands that tribal law enforcement has no jurisdiction over transient workers that come on reservations to construct and maintain the numerous pipelines.²¹⁹ The non-Native individuals who reside in man camps do not fall within tribal jurisdictional authority, even when the camps are built on Indigenous lands.²²⁰ This accentuates an alarming danger, especially in light of the massive increase in reports of sexual assaults against Native women perpetrated by the peak of oil production in the Bakken regions.²²¹ Without a clear defining demarcation of jurisdictions, the ability of such crimes to be prosecuted will be more greatly prohibited. Additionally, in the process of attempting to make sense of this ambiguous jurisdiction on reservations, the victims will be deprived of justice that much longer, as seemingly the majority of the authoritative forces are left doubtful as to whether they possess the jurisdictional authority to prosecute or not.

The Violence Against Women Act ("VAWA") permitted tribes to bring criminal charges against non-Native perpetrators in selected cases. ²²² VAWA was last reauthorized in 2013, but it lapsed in 2018 due to Congress' failure to act against partisan disputes over other issues. ²²³ However, as of now, the House of Representatives voted to renew VAWA, thus approving its reauthorization. ²²⁴ Subsequently, the legislation will go to the Senate where its passage is expected. ²²⁵ Since VAWA first passed in 2013, tribal communities have experienced better collaboration with other governments in relation to certain crimes against women, like domestic violence. ²²⁶ The Act allows tribes to charge non-Natives for domestic violence against partners or spouses, and when

^{218.} Cohen, supra note 101.

^{219.} Bleir & Zoledziowski, supra note 98.

^{220.} Id.

^{221.} *Id*.

^{222.} See Felicia Fonseca, Tribes see improvements, hurdles as they charge non-Natives, THE ASSOCIATED PRESS (Apr. 2, 2018), available at https://www.businessinsider.com/aptribes-see-improvements-hurdles-as-they-charge-non-natives-2018-4 (last visited Jan. 14, 2022).

^{223.} Susan Davis, House Renews Violence Against Women Act, But Senate Hurdles Remain, NPR (Mar. 17, 2021), available at https://www.npr.org/2021/03/17/977842441/house-renews-violence-against-women-act-but-senate-hurdles-remain (last visited Jan. 14, 2021).

^{224.} Annie Karni, *House Passes Bill to Bolster Protections for Women Facing Violence*, NY TIMES (Mar. 9, 2022), *available at* https://www.nytimes.com/2022/03/09/us/politics/house-passes-violence-against-women-act.html (last visited Mar. 11, 2022).

^{225.} Id.

^{226.} Fonseca, supra note 222.

protection orders are violated.²²⁷ The limitations, however, are that VAWA does not extend to violence against children or other family members, and it does not include crimes by non-Natives perpetrated against victims they do not know, or crimes by tribal members against non-Natives.²²⁸ Additional limitations are that tribal authorities cannot charge property crimes, sexual misconduct, false imprisonment, threats, trafficking or stalking.²²⁹ In the initial reauthorization legislation draft, Congress sought to address a number of these concerns and limitations.²³⁰

The issue of jurisdictional restrictions inhibits Native communities from exercising their right of complete autonomy and self-governance "in matters relating to their internal and local affairs." Tribal authorities should be permitted to decide their methods of prosecutions to ensure that perpetrators who commit crimes on tribal lands, no matter if they are non-Native or Native, are faced with the proper sentence as determined in tribal courts. As stated in Article 5, Indigenous peoples should have the "right to maintain and strengthen their distinct political, legal, economic, social and cultural institutions." It would be a justified benefit for Native communities to be given this choice to determine their own respective legal resolutions, so that victims are not delayed or eventually deprived of their right to relief.

CONCLUSION

Indigenous peoples in the U.S. have persistently encountered broken treaties and forgotten promises from the federal government. Historical practices have bled into present contexts, and the policies once guaranteed towards Native treatment and Native betterment have become transformed into Native invisibility. The federal government continues in its lack of prioritization of Native rights, while further initiating economic interests that go to directly diminishing the little control withheld by tribal reservations and Native communities. Criminal law and criminal jurisdictional practices present a discriminatory mindset of dishonoring previous warranties of tribal interests and furthering the delay and enactment of justice for the vulnerable class of victims. As a nation, the U.S. must do better in converting the objectives carried forth

^{227.} Id.

^{228.} Id.

^{229.} Id.

²³⁰ Id

^{231.} UNDRIP, supra note 35, at § 4.

^{232.} Id. at § 5.

in the UNDRIP to legislative policies that can be enforced domestically for the advancement of Native rights.

A primary purpose of the UNDRIP is to protect the welfare of Indigenous peoples' rights while working to establish minimum standards for the recognition, protection, and promotion of such rights.²³³ It is meant to act as a framework for the survival and dignity of the world's Indigenous peoples.²³⁴ Consequently, the UNDRIP's provisions are meant to ensure that the voices of the Indigenous Native populations are heard and that their calls for necessary change for their respective communities are perceived and translated into actual domestic policies with definite solutions. One such solution is to allow tribal communities to implement criminal justice policies in tribal courts and through tribal law enforcement. This would allow direct authority of tribal authorities to hear and try crimes that are perpetrated against the communities that they themselves are a member of. There is an increased anticipation of cooperation and direct relations that would benefit investigations and prosecutions. One other solution is for the federal government to increase necessary funding for tribal reservations to engage in initiating the needed prosecutions by providing additional tribal law enforcement personnel and investigatory aid. The federal government could also increase the attendance of tribal resources by working to set up helplines and shelters that provide structural protections for the individuals most vulnerable to being victims of assault, especially in times of growing industrial presence on Native reservations.

Despite the absence of UNDRIP in domestic U.S. policies, it is notable that the Indigenous Native populations of the U.S. have time and time again exhibited fortitude in overcoming their encountered adversities. The tenacity of Native communities in their efforts to not be a forgotten people is an inspiring and hopeful teaching, and it endorses a heartening promise towards what is to come. As the UNDRIP incorporates a standard to which all countries should hold as a minimum, the U.S. should heed the rights as stated in this international treaty, so that all individuals residing in the U.S., whether on tribal reservations or not, can hold themselves accountable to a higher standard than that which the U.S. has historically, and still currently, has in place.

^{233.} United Nations Declaration on the Rights of Indigenous Peoples, OFFICE OF THE HIGH COMMISSIONER FOR HUMAN RIGHTS (Sept. 13, 2007), available at https://www.ohchr.org/en/issues/ipeoples/pages/declaration.aspx (last visited Jan. 16, 2021).

^{234.} *Id*.



PUTTING PROTECTIONIST REGULATIONS OUT TO PASTURE: HOW INTERNATIONAL REGIMES CAN IMPACT THE ENVIRONMENT

Alyssa Christian

INTRODUCTION

As if there were not enough decisions to make when grabbing their morning coffee, consumers are now offered choices of at least oat, almond, soy, or traditional milk. These options are everywhere, but do they all fall under the same family of "milk" beverages? It turns out that cows are a little jealous of their new cousins in grocery coolers, leading dairy farmers to want the non-cow milk disowned from the milk family. Others, like the oat, almond, soy, and coconut milk industries, see cows as the problem.

Cows are cute and have become a beloved part of society, but just as much as one might not want to be near them when they pass gas, the environment does not like it either.¹ Meaning, when any of the 250 million dairy cows in the world fart or burp, greenhouse gases are released and the Earth gets a little warmer.² Despite this, governments expend significant time and money to support the industry.³ Consider how much dairy⁴ is a part of everyday life. It is an after-school ice cream with your grandpop, the cheesy best friend to a ham sandwich, or a cookie's favorite drink, so of course it has been protected at all costs.⁵ However, many think it is time to change that. Since the 1990's campaign of "Got Milk?," the average number of milk mustaches has continued to

^{1.} U.N. Food and Agric. Org. Animal Prod. and Health Div., Greenhouse Gas Emissions from the Dairy Sector, A Life Cycle Assessment, (hereinafter "Dairy LCA") (2010), available at http://www.fao.org/3/k7930e/k7930e00.pdf (last visited Feb. 4, 2022).

^{2.} *Id.*; Caroline Grunewald, *Biden Has a Plan to Save American Dairy*, THE HILL, (Aug. 20, 2020) *available at* https://thehill.com/opinion/energy-environment/512948-biden-has-a-plan-to-save-americas-dairy-but-does-it-go-far-enough (last visited Feb. 4, 2022).

^{3.} Chris Edwards, *Milk Madness*, CATO INST. TAX & BUDGET BULL. (July 2007), available at https://www.cato.org/sites/cato.org/files/pubs/pdf/tbb_0707_47.pdf#:~:text=The%20federal%20government%20has%20subsidized,dairy%20industry%20since%20the%201930s.&text=1%20The%20government%20spends%20billions,dairy%20programs%20increase%20milk%20prices (last visited Feb. 4, 2022).

^{4.} For the sake of clarity, this Note will use "dairy" solely in reference to cow milk and cow milk products despite trends to include alternative milks under the umbrella of dairy.

^{5.} See Food & Agric. supra note 1.

drastically diminish.⁶ Today's market demand is not wholly cow milk but contains many alternatives like soy, almond, oat, rice, hemp, and coconut.⁷ Environmental, health, and ethical preferences mirror that cow's milk is not as popular as it used to be.⁸ Plus, dairy alternatives are growing in demand.⁹ Modern advertisements promote vegan and cruelty free options over the traditional "Got Milk?" message.¹⁰ What does this mean for the future of cows?

On one hand, there are society's favorite foods and the product of proud dairy farmers, and on the other hand, there are the somewhat healthier, environmentally more sustainable, and animal friendly options ready to step into dairy's shoes.¹¹ This tension can be seen in the United States as the "Milk Wars;" the "Dairy Pride" movement versus the

^{6.} See Kirk Kardashian, The End of Got Milk?, THE NEW YORKER (Feb. 28, 2014), available at https://www.newyorker.com/business/currency/the-end-of-got-milk (last visited Feb. 4, 2022); Danielle Wiener-Bronner, America's Milk Industry is Struggling. Don't Blame Oat Milk, CNN BUSINESS (Nov. 21, 2019), available at https://www.cnn.com/2019/11/21/business/milk-industry-dean-foods/index.html (last visited Feb. 4, 2022).

^{7.} Nellie Bowles, Got Milk? Or Was That Really a Plant Beverage?, N.Y. TIMES (Aug. 31, 2018), available at https://nyti.ms/2MFlkMh (last visited Feb. 4, 2022).

^{8.} Wiener-Bronner, *supra* note 6; *See Id.* at 30. The "Got Milk?" ad campaign was based on a deprivation strategy which would indicate that milk was the perfect and only complement to many foods. "Snapple on your Wheaties" or "Dunking your freshly baked tollhouse cookies in 7-Up" were examples of how milk was unable to be substituted. This strategy is now debunked as there are numerous alternatives in the plant industry.

^{9.} Bowles, supra note 7.

^{10.} See Ben Webster & Bronwen Lloyd, Milk Can Be Branded Inhumane, Advertising Chiefs Tell Farmers After Vegan Campaign, THE TIMES (July 26, 2017), available at https://www.thetimes.co.uk/article/milk-can-be-branded-inhumane-advertising-chiefs-tell-farmers-after-vegan-campaign-jwgblxmb7 (last visited Feb. 4, 2022); Jessica Wohl, See Oatly Bring a 2014 Ad Banned In Sweden to the U.S. For its Super Bowl Debut, ADAGE (Feb. 7, 2021), available at https://adage.com/article/special-report-super-bowl/see-oatly-bring-2014-ad-banned-sweden-us-its-super-bowl-debut/2312321 (last visited Feb. 4, 2022).

^{11.} See Christina Troitino, The Dairy Pride Act's Beef with Plant-Based Milk, FORBES (Apr. 6, 2017), available at https://www.forbes.com/sites/christinatroitino/2017/04/06/the-dairy-pride-acts-beef-with-plant-based-milk/?sh=42c7844b454d (last visited Feb. 4, 2022).

^{12.} Iselin Gambert, Got Mylk: The Disruptive Possibilities of Plant Milk, 84 BROOK. L. REV., 801, 802 (2019), available at https://brooklynworks.brooklaw.edu/blr/vol84/iss3/3 (last visited Feb. 4, 2022).

^{13.} Defending Against Imitations and Replacements of Yogurt, Milk, and Cheese to Promote Regular Intake of Dairy Everyday Act, H.R. 778, 115th Cong. (2017). This bill attracted a lot of attention. Promoted as American, it narrowly got killed. Since then, there have been numerous attempts to revive the bill, lobby the FDA, and attack the "imitation products deceiving the American people."

"Let Dairy Die" protests. Both sides are milking the issues, but for the environment's sake, the United Nation's Food and Agriculture Organization (FAO) must step in and change the international food standard's definition of milk to include plant-based alternatives.

THE PROMINENT SOCIAL ROLES OF DAIRY AND ITS SUBSTITUTES

As mentioned, the "Milk Wars" are becoming a highly contested debate. This note proposes a moderate approach between "letting dairy die" and allowing it to carry on business as usual. A middle ground is best because neither extreme fully satisfies the goals of international law.

Sustainable Development Goals Dilemma

The United Nations (U.N.) has 17 Sustainable Development Goals (SDGs) to promote economic and social development by 2030. ¹⁵ Current environmental trends jeopardize the recognition of these goals. ¹⁶ Specifically, the dairy industry and competing dairy alternative markets have a role in both hurting and helping a number of the SDGs. ¹⁷ The dairy industry and its agricultural practices increase the amount of nutritious foods accessible to many people, contributing to SDG 2: Zero Hunger. ¹⁸ However, current agricultural practices inadvertently contribute to global warming, thus, impeding the achievement of SDG 13: Climate Action. ¹⁹ Similarly, additional food sources support SDG 3: Good Health and Well Being. ²⁰ The entire dairy industry does not support this goal; however, as high-fat dairy products, commonly dumped on low-income

^{14.} Let Dairy Die rose to prominence during the 2020 election as numerous advocates, some topless, crashed the stages of several democratic nominees including Bernie Sanders, Elizabeth Warren, and most notably, Joe Biden whose wife Jill, was pictured aggressively pushing the protestors away from the future president. Maria Cramer, *What is 'Let Dairy Die," and Why is it All Over the Democratic Race?*, N.Y. TIMES (Mar. 4, 2020), available at https://www.nytimes.com/2020/03/04/us/politics/joe-biden-let-dairy-die.html (last visited Feb. 4, 2022).

^{15.} G.A. Dec. 70/1, Transforming our World: the 2030 Agenda for Sustainable Development (Oct. 21, 2015). (hereinafter "U.N. SDGs").

^{16.} UNEP, *Making Peace with Nature*, at 87 (Feb. 2021), *available at* https://wedocs.unep.org/xmlui/bitstream/handle/20.500.11822/34948/MPN.pdf (last visited Feb. 4, 2022).

^{17.} Katarina Arvidsson et al., Research on Environmental, Economic, and Social Sustainability in Dairy Farming: A Systemic Mapping of Current Literature, SUSTAINABILITY (July 2020), at 1; U.N. SDGs, supra note 15

^{18.} U.N. SDGs, supra note 15; David Tillman, et al., Agricultural Sustainability and Intensive Production Practices, 418 NATURE 671 (2002).

^{19.} Tillman, supra note 18.

^{20.} U.N. SDGs, supra note 15.

communities,²¹ are linked to many preventable diseases.²² This would frustrate SDG 3.

Additionally, writing international dietary guidelines based on dairy consumption frustrates SDG 10: Reduced Inequalities²³, as more than half of Earth's population cannot digest lactose properly after infancy.²⁴ The number of individuals who have trouble digesting lactose is growing and is significantly higher among people of color.²⁵ This practice of writing dietary guidelines based on dairy consumption contributes to what Andrea Freeman calls "food oppression."²⁶

Despite the majority of the world's inability to properly digest lactose, obliterating the dairy industry would have a disastrous impact on SDG 8: Decent Work and Economic Growth.²⁷ Worldwide, there are an estimated one billion people supported by the dairy sector, relying on the industry for their livelihoods and the production of dairy for use in the economy.²⁸ There would be significant economic impact on dairy farmers, restaurant owners, and developing nations without milk, cheese, ice cream, butter, and other dairy products. With this in mind, SDG 15: Life on Land²⁹ would be jeopardized if current economic reliance precluded implementing sustainable practices to maintain future productivity and biodiversity.³⁰

^{21.} Andrea Freeman, The Unbearable Whiteness of Milk: Food Oppression and the USDA, 3 UC IRVINE L. REV. 1251, 1252 (2013).

^{22.} Tillman, supra note 18; Gene Baur, The Best Way to Help Dairy Farmers is to Get Them Out of Dairy Farming, THE WASH. POST (Jun. 12, 2019), available at https://www.washingtonpost.com/opinions/2019/06/12/best-way-help-dairy-farmers-is-get-them-out-dairy-farming/ (last visited Feb. 7, 2022).

^{23.} U.N. SDGs, *supra* note 15, at 14.

^{24.} W. Steven Pray, Lactose Intolerance: The Norm Among the World's People, Am. J. OF PHARMACEUTICAL EDUC. 64 (2000), available at https://www.researchgate.net/profile/Walter-

Pray/publication/237122817_Lactose_Intolerance_The_Norm_Among_the_World%27s_Pe oples/links/540f11e30cf2df04e75a2194/Lactose-Intolerance-The-Norm-Among-the-Worlds-Peoples.pdf (last visited Mar. 22, 2022).

^{25.} *Id.*; Medline Plus, NIH, *available at* https://medlineplus.gov/genetics/condition/lactose-intolerance/#frequency (last visited Feb. 7, 2022).

^{26.} Freeman, supra note 21, at 1253.

^{27.} U.N. SDGs, supra 15; Arvidsson et al., supra note 17.

^{28.} The Global Dairy Sector, FOOD AND AGRIC. ORG. OF THE U.N., available at http://www.dairydeclaration.org/Portals/153/FAO-Global-

Facts.pdf?v=1#:~:text=xviii%20With%20an%20estimated%20150,to%20one%20billion%2 Opeople%20worldwide (last visited Feb. 7, 2022).

^{29.} U.N. SDGs, supra 15.

^{30.} Arvidsson et al., supra note 17, at 2.

SDG 9: Industry, Innovation, & Infrastructure³¹ brings the two sides together by not only recognizing the important industry and infrastructure in place with dairy but by also promoting innovation to make these systems more sustainable.³² This note will propose one way the international framework can work to reconcile these goals. The proposal's necessity and impact will be explored by unpacking the destructive practices of dairy farming, the trends toward plant-based products, developing case law around the globe regarding labeling, and how international guidelines can create a more sustainable industry while promoting global food security and health by allowing plant-based and traditional dairy to compete.

DAIRY'S NEGATIVE IMPACT ON THE ENVIRONMENT

The largest threat posed by the dairy industry is environmental. Since humans cannot digest grass, the ability of cows to digest it contributes to the effective use of land Sustainable Development Goal.³³ However, to do this, cows process grass through enteric fermentation.³⁴ Their four-chamber stomachs allow the food to be re-digested with microbes that break down cud and release methane.³⁵ Cows mostly release this methane through belching.³⁶ Methane is one of the main Greenhouse Gases (GHGs) scientists attribute to climate change because of its heat-trapping qualities.³⁷ Therefore, it is necessary to determine how many millions of tons of gas the cow industry is responsible for in order to tackle climate change with appropriate measures.

A Life Cycle Assessment (LCA) follows the chain of what it takes to make a product.³⁸ The agriculture industry widely accepts this systemic analysis to determine the impact of livestock on the environment.³⁹ For dairy products, the analysis includes fertilizers, pesticides, and feed input's transportation to the farm, dairy processing, packaging costs, and

^{31.} U.N. SDGs, supra 15.

^{32.} Arvidsson et al., supra note 17, at 1-2.

^{33.} Arvidsson et al. supra note 17, at 2.

^{34.} Deanne M. Camara Ferreira, Global Warming and Agribusiness: Could Methane Gas from Dairy Cows Spark the Next California Gold Rush, 15 WIDENER L. REV. 541 (2010).

^{35.} Brad Plumer, California Wants to Regulate Cow Belches. It's Less Weird Than it Sounds, Vox (Oct. 2, 2016), available at https://www.vox.com/2016/9/27/13072714/california-methane-cow-belches (last visited Feb. 4, 2022).

^{36.} Id.

³⁷ Id

^{38.} Dairy LCA, supra note 2, at 9.

^{39.} Id. at 16.

distribution effects.⁴⁰ The only aspects excluded in the LCA relate to final consumption after consumer purchase.⁴¹ The LCA can be segmented, and the "cradle to farm-gate" segment tends to have the most significant impact on GHG emissions.⁴²

In this segment, the FAO's LCA indicates about 6% of global GHG emissions are the result of livestock's belching and flatulence. Besides belching, cow manure must decompose which also releases warming gases like carbon dioxide, nitrous oxide, and methane. The FAO concludes that dairy cows are responsible for 19% of total GHG emissions.

Beyond the LCA's GHG emissions, other environmental concerns include water resource degradation, biodiversity, and erosion.⁴⁵ Cows do not like the hot weather and lose their appetites around 92 degrees Fahrenheit.⁴⁶ To keep them cool, farmers utilize air conditioning, impacting the environment further, and give them water.⁴⁷ Water is used to feed and wash cows as well as clean the dairies and employees and grow the crops for feed.⁴⁸

Some proponents of the dairy industry claim that the environmental impacts of cows are blown out of proportion or do not exist at all.⁴⁹ This note does not argue whether global warming is real. While some studies have been discredited and it may be hard to measure the methane released from cows, it is well-understood that methane release occurs, and it contributes to global warming.⁵⁰

^{40.} Id. at 9.

^{41.} Dairy LCA, supra note 2, at 19.

^{42.} *Id.* at 11.

^{43.} Id.

^{44.} Denis Hayes & Gail Boyer Hayes, Cowed, The Hidden Impact of 93 Million Cows on America's Health, Economy, Politics, Culture, and Environment 33-34 (2015).

^{45.} Dairy LCA, supra note 2, at 13.

^{46.} Hayes, supra note 44, at 36.

^{47.} Id. at 36-37.

^{48.} Id. at 36.

^{49.} Frank M. Mitloehner, Yes, Eating Meat Affects the Environment, But Cows Are Not Killing the Climate, CONVERSATION, Oct. 25, 2018, available at https://theconversation.com/yes-eating-meat-affects-the-environment-but-cows-are-not-killing-the-climate-94968 (last visited Feb, 5 2022).

^{50.} FAO, Climate Change and The Global Dairy Cattle Sector, GLOBAL AGENDA FOR SUSTAINABLE LIVESTOCK, at 7 (2019), available at https://www.fao.org/3/ca2929en/ca2929en.pdf (last visited Feb, 5 2022) [hereinafter "Climate Change and the Global Sector"].

Foods made from plants instead of animals, like alternative milk, are better for the environment and are gaining popularity.⁵¹ Adversaries to the plant-based industry point out that there are environmental externalities from vegan options as well, such as almond milk production hurting bees and soy plants leading to adverse consequences to the land.⁵² However, these effects are minimal compared to those produced in the dairy industry. Soy production's environmental impact is much less than that of cattle raising and milk production.⁵³ Silk, a popular dairy-alternative brand advertises that its soy, almond, and coconut milks use 80% less water than it would take to produce the same amount of cow milk.⁵⁴ The science is clear that dairy cows are part of the GHG emissions crisis.⁵⁵ The leading programs on climate change advocate for a reduction of traditional dairy consumption because plant-based is better for the environment.⁵⁶ Although there may not be a perfect solution at this time, action still must be taken.

DAIRY'S POSITIVE CONTRIBUTIONS TO THE ECONOMY

Despite dairy's flaws, if international law promoted the idea of totally ditching dairy, there would be too many stray cows on the loose along with numerous other side effects. Most significantly, SDG 8: Decent Work and Economic Growth would be substantially frustrated.⁵⁷ There are over 150 million hard-working dairy farmers who are an integral part of the global economy.⁵⁸ Additionally, farmhand positions

^{51.} Annette McGivney, Almonds Are Out. Dairy is a Disaster. So What Milk Should We Drink?, THE GUARDIAN (Jan. 29, 2020), available at https://www.theguardian.com/environment/2020/jan/28/what-plant-milk-should-i-drink-almond-killing-bees-aoe (last visited Mar. 22, 2022).

^{52 14}

^{53.} Courtney Grant & Andrea Hicks, Comparative Life Cycle Assessment of Milk and Plant-Based Alternatives, 35 ENVIL. ENGINEERING SCI., UNIV. OF WISCONSIN-MADISON (2018); McGivney, supra note 51.

^{54.} Silk, Our Story, 2013 Water Footprint Assessment, available at https://silk.com/about-us/ (last visited Feb. 5, 2022).

^{55.} See FAO, supra note 50.

^{56.} UNEP, supra note 16, at 34.

^{57.} U.N. SDGs, supra note 15.

^{58.} Elizabeth Rembert, Megan Durisin, & Mike Dorning, Dairy Farmers Worldwide Are on the Brink of Crisis, BLOOMBERG (June 30, 2020), available at https://www.bloomberg.com/news/articles/2020-07-01/dairy-farmers-dumping-milk-worldwide-are-on-the-brink-of-

crisis#:~:text=The%20sector%20accounts%20for%20about,according%20to%20the%20United%20Nations (last visited Feb. 5, 2022).

employ a large number of migrant workers.⁵⁹ Dairy products also serve as input commodities in other parts of the economy, creating millions of jobs.⁶⁰ Without dairy, many hospitality businesses would also suffer.⁶¹ Since dairy is a prominent food source, losing it would cause food insecurity to rise as well, frustrating SDG 2: Zero Hunger.⁶²

These considerations were included in the reasoning for this proposal in order to afford some protection to dairy farmers and recognizes the essential role of dairy in many lifestyles and economies. However, these reasons do not negate the serious problems posed by dairy farming, and therefore, an inflexible approach, like banning traditional dairy's competition, does not make the future of dairy any brighter. These problems need to be tackled now to make the future of agriculture more sustainable.

THE EFFECTS ON PUBLIC HEALTH

Later, this note will discuss consumer confusion between plant and cow milk and why there is a debate about the use of the word "milk." For now, it is important to understand the differences and each product's role in public health.

NUTRITIONAL CONTENT

For many years, dairy was touted as building strong bones and providing a good source of calcium.⁶³ Although plant-based alternatives may contain less calcium per calorie, there is still a well-founded debate over which type of drink is healthier.⁶⁴ Many dairy alternatives are fortified which adds nutrition where it may be deficient in comparison to

^{59.} See Tim Craig, Death of Farmworkers in Cow Manure Ponds Put Oversight of Dairy Farms into Question, WASH. POST (Sept. 24, 2017), available at https://www.washingtonpost.com/national/deaths-of-farmworkers-in-cow-manure-ponds-put-oversight-of-dairy-farms-into-question/2017/09/24/da4f1bae-8813-11e7-961d-2f373b3977ee_story.html (last visited Feb. 5, 2022).

^{60.} FAO, *The Global Dairy Sector: Facts 2019*, at 2, available at https://www.filidf.org/wp-content/uploads/2021/01/DDOR-Global-Dairy-Facts-2019.pdf (last visited Feb. 5, 2022).

^{61.} Id.

^{62.} Id.; FAO, Climate Change and the Global Dairy Cattle Sector, supra note 55, at 11.

^{63.} Hayes, supra note 44, at 129.

^{64.} See Christina Troitino, The Dairy Pride Act's Beef With Plant-Based Milk, FORBES (Apr. 6, 2017), available at https://www.forbes.com/sites/christinatroitino/2017/04/06/the-dairy-pride-acts-beef-with-plant-based-milk/?sh=42c7844b454d (last visited Feb. 5, 2022).

cow's milk.⁶⁵ Similar to chocolate milk containing less nutritional benefit compared to whole white milk, consumers will have to read labels to understand which products fit best in their diets.⁶⁶

Additionally, the nutritional value of cow milk is under scrutiny.⁶⁷ One article explains that "you don't need milk, or large amounts of calcium, for bone integrity. In fact, the rate of fractures is highest in milk-drinking countries, and it turns out that the keys to bone strength are lifelong exercise and vitamin D."⁶⁸ With new studies showing overconsumption and less benefits, cow's milk cannot claim superiority. Despite the doubt around dairy, the industry insists that plant-based alternatives cannot use words like "milks," "cheese," or "yogurt" because they are nutritionally inadequate.

DIETARY GUIDELINES

As a result of clinging to outdated notions of cow milk's importance in human diets, most dietary guidelines require numerous servings of dairy per day. In 2019, Canadian Prime Minister, Justin Trudeau was under fire from the dairy sector because the Canadian Health Department updated guidelines eliminating a daily dose of dairy.⁶⁹ Trudeau was accused of pushing veganism and the liberal agenda.⁷⁰ However, this move was celebrated by dieticians because of lactose intolerance, allergies, and overconsumption.⁷¹

When discussing SDG 10: Reduced Inequalities, this article noted that the majority of people of color cannot properly digest lactose. Due to genetic mutations likely caused by European famines, people of European descent are more likely able to digest lactose beyond infancy. This means that minorities disproportionately cannot digest lactose. In

^{65.} Carol Rees Parrish, Moo-ove Over, Cow's Milk: The Rise of Plant-Based Dairy Alternatives, 171 NUTRITION ISSUES IN GASTROENTEROLOGY 21 (2018).

^{66.} Id. at 27.

^{67.} Hayes, supra note 44, at 129-161.

^{68.} Mark Bittman, *Got Milk? You Don't Need It*, N.Y. TIMES (July 7, 2012), *available at* https://opinionator.blogs.nytimes.com/2012/07/07/got-milk-you-dont-need-it/ (last visited Jan. 31, 2022).

^{69.} Why Justin Trudeau Is Fighting Over Milk, BBC News (Jul. 23, 2019), available at https://www.bbc.com/news/world-us-canada-49091439 (last visited Jan. 31, 2022).

^{70.} Id.

⁷¹ *Id*

^{72.} Andrew Curry, Archaeology: The Milk Revolution, 500 NATURE 21 (2013); Freeman, supra note 21, at 1261-62.

^{73.} Curry, supra note 72, at 21-22.

^{74.} See id.

the United States, "as many as 50 million people are lactose intolerant, including 90 percent of all Asian-Americans and 75 percent of all African-Americans, Mexican-Americans and Jews". This poses significant hardships as most dictary guidelines require multiple servings of dairy a day. By failing to address this large population, the guidelines contribute to the systemic health problems for people of color. The systemic health problems for people of color.

Although many people are lactose intolerant, there is evidence that many more struggle to digest dairy. With the government's dairy promotional efforts, 9 many consumers do not realize that dairy is negatively contributing to their health, and they continue to consume it or ignore any discomfort because they do not know the cause, or dairy alternatives are not readily available. Restrictive labeling also presents the dairy alternative markets with other significant hardships. By defining milk as "mammary secretion of lactating mammals," dairy-free alternatives are excluded from many government-sponsored programs like school lunches and welfare programs that specify food categories since they cannot be labeled in dairy's category. This makes nutritious foods for lactose intolerant individuals harder to access. Plant-based products, then, do not get any revenue from governmental benefits Therefore, labeling laws that limit the scope of dairy are problematic to public health and hurt the dairy alternative sector.

To remedy this, some dietary guidelines include soymilk under the umbrella of dairy and provide the proper information on its nutritional value. The dairy industry continues to lobby that cow's milk is necessary to a healthy diet despite the widespread acceptance that this is no longer true, complicating the matter for those who do not consume dairy. International dietary guidelines need to reflect more diverse health standards by clarifying that plant-based alternatives are a part of the dairy family and can positively affect health.

The Rise of Plant-Based "Beverages"

^{75.} Bittman, supra note 68.

^{76.} Freeman, supra note 26.

^{77.} Id.

^{78.} See Bittman, supra note 68.

^{79.} In addition to federal assistance, cow's milk is incorporated into federal school lunch programs, and MilkPep has lobbied for nutritional education in schools hosted by the dairy industry, exposing children to a very one-sided ideology about milk from a young age.

^{80.} Parrish, supra note 65.

^{81.} Food and Agric. Org. of the U.N. & World Health Org., Codex Alimentarius: Milk and Milk Products (2011), available at http://www.fao.org/3/i2085e/i2085e00.pdf (last visited Mar. 22, 2022) [hereinafter Codex: Milk and Milk Products].

^{82.} Freeman, supra note 26.

Subsidiary bodies in the U.N. are aware of traditional dairy's threat to the SDGs. In February 2021, the UNEP published a detailed guideline on how to address climate change, biodiversity, and pollution within the SDG framework.⁸³ In a section urging the transformation of food systems to be more equitable, efficient, and environmentally friendly, the blueprint considers how consumer norms and cultural practices can impact the SDGs:

Changing the dietary habits of consumers, particularly in developed countries, where consumption of energy- and water- intensive meat and dairy products is high, would reduce pressure on biodiversity and the climate system. These habits are a function of individual choices but are also influenced by advertising, food and agricultural subsidies and excess availability of cheap food that provides poor nutrition.⁸⁴

The change in dietary habits is already occurring. As incomes in developed countries continue to rise, so will the popularity of plant-based products. By not receiving the same preferential treatment cow's milk receives with government assistance and favorable regulations, dairy alternatives face an uphill battle. Despite this hardship, there has been great success for soy, oat, rice, coconut, and almond milk.⁸⁵ The alternative dairy industry has been experiencing growth that is expected to continue.⁸⁶

Dairy alternatives are substitutes for animal-based products like milk, cheese, and cream. BIS World's industry report on Soy and Almond Milk Production defines "plant milk" as a "beverage produced by soaking dry beans, nuts or seeds and grinding them with water. Brike in demand is cited to "various factors such as growing consumer preference for a vegan diet and nutritional benefits offered by plant-based dairy alternatives. The market is expected to be valued at \$35.06 billion by the end of 2024.

^{83.} UNEP, supra note 56.

^{84.} Id. at 34.

^{85.} Grand View Research, Dairy Alternatives Market to Be Driven by Rising Number of Lactose Intolerance Cases Till 2024

^{86.} Claire O'Connor, Soy & Almond Milk Production, IBISWORLD, (June 2020)

^{87.} Id. at 5.

^{88.} Id. at 46.

^{89.} Global Dairy Alternatives Market (2020 to 2025), BUSINESSWIRE (July 20, 2020), available at https://www.businesswire.com/news/home/20200720005287/en/Global-Dairy-Alternatives-Market-2020-2025 (last visited Mar. 22, 2022).

^{90.} Grand View, supra note 85.

Soy milk originally occupied the largest chunk of the sector. However, almond milk has since overtaken soy for the lead. Despite the array of dairy alternatives, the main competition to milk alternatives is cow's milk, rather than competition amongst themselves. Dairy alternatives and cow's milk are not perfect substitutes due to health and moral concerns, but an increase in the price of one product increases the demand of the other. Industry growth has been driven, and will likely to continue to be driven, by health as consumers are growing more concerned about "additives in traditional cow's milk, such as growth hormones and antibiotics." Since some are uncomfortable with hormones and antibiotics, this touches back to why plant-based alternatives must be considered in dietary guidelines under the milk category.

With the rise in popularity of plant-based milks, there has been a simultaneous decrease in demand for cow milk. As more and more coffee shops are offering plant-based milks for lattes, are growing more and more concerned. The most apparent attempt to knock the new market entrants down has been through lobbying for restrictive labeling.

THE CURRENT LAWS THAT SPARK THE "MILK WARS"

The dying dairy industry and rising plant-based-milk-demand coupled with unclear guidance on health has caused a legal battle that is unmatched to any lunchroom food fight.

Branding: The Confusion Between Plants and Cows

^{91.} BUSINESSWIRE, supra note 89.

^{92.} O'Connor, supra note 86, at 12.

^{93.} Id. at 22.

^{94.} Id.

^{95.} Id. at 15.

^{96.} Id.

^{97.} Samantha Kubota & Chrissy Callahan, Starbucks adds out milk to the menu nationwide, YAHOO! (Dec. 10, 2020), available at https://www.yahoo.com/lifestyle/starbucks-adds-oat-milk-menu-063216016.html (last visited Jan. 30, 2022); Mariana Fabian, OPINION: Out milk is becoming the new standard and 1've never been happier, TECHNICIAN (Feb. 2, 2021), available at http://www.technicianonline.com/opinion/article_d4caale4-65c3-11eb-8a5f-0beceef91c02.html (last visited Jan. 30, 2022).

^{98.} Marsha Mercer, Stop Milking It, Dairy Farmers Tell Plant-Based Competitors, PEW (Mar. 20, 2020), available at https://www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2020/03/02/stop-milking-it-dairy-farmers-tell-plant-based-competitors (last visited Jan. 30, 2022).

^{99.} Id.

When you bring up branding and cows, one usually thinks of the practice of marking cattle with a hot iron. However, dairy farmers now have a different type of branding problem, that is, alternative milks sharing the brand they love, milk. Some fear that consumers will not know the difference between a cow and a plant product.

The proponents of restrictive labeling claim that plant-based products violate the "standard of identity" for milk. A standard of identity requires that certain foods be made from specific components in order for it to be labeled as such. The traditional rule is that foods be identified as their "common name" if there is one or the name prescribed by regulations. This is to prevent consumer confusion by mislabeled food. By excluding plant-based alternatives from the definition of milk, consumers are supposed to be sheltered from being deceived into thinking cow's milk and plant-based milk are the same. The laws regarding labeling all call for milk's standard of identity to prevent consumer confusion. However, the issue of whether there is actual consumer confusion without these laws will be discussed below.

THE INTERNATIONAL LAW ON LABELING

The United Nations' Food and Agriculture Organization (FAO) is one of the oldest specialized agencies of the U.N. as it was established in the inaugural session of the U.N. in 1945. Specialized agencies, like the FAO, are autonomous organizations funded by both voluntary and assessed contributions. There are currently 194 FAO member states, and it is headquartered in Rome, Italy. The FAO's mission includes to "[reduce] food insecurity and rural poverty," "ensur[e] an enabling policy and regulatory framework for food and agriculture," and to "[conserve] and [enhance] the natural resource base." These goals are like many

^{100.} See The Codex General Standard for the Use of Dairy Terms- Its nature, intent, and implications, INT'L DAIRY FED'N, (Nov. 2020), available at file:///Users/alexistelga/Downloads/Bulletin-of-the-IDF-507_2020_The-Codex-General-Standard-for-the-Use-of-Dairy-Terms.CAT_-snusw3%20(2).pdf (last visited Jan. 31, 2022) [hereinafter IDF Bulletin].

^{101.} Id.

^{102.} Id.

^{103.} About FAO, FOOD AND AGRIC. ORG. OF THE U.N., available at http://www.fao.org/about/en/ (last visited Feb. 1, 2022).

^{104.} FAO and the UN, FOOD AND AGRIC. ORG. OF THE U.N., available at http://www.fao.org/about/fao-and-the-un/en/ (last visited Feb. 1, 2022).

^{105.} About FAO, supra note 103.

^{106.} Overall strategic framework, FOOD AND AGRIC. ORG. OF THE U.N., available at http://www.fao.org/3/x3551e/x3551e02.htm (last visited Feb. 1, 2022).

of the SDGs. Therefore, the actions of this autonomous agency do affect the goals of other U.N. bodies including the SDGs.

Global Administrative Law (GAL) refers to the increasing number of international agencies that have an impact on international and national laws. ¹⁰⁷ GAL is a normative project that justifies the structure of global administrative regulations. ¹⁰⁸ With the expansion of these international organizations that have power in global governance, there is a need to tackle normative projects from an international level instead of just domestically. ¹⁰⁹

The United Nation's Food and Agriculture Organization (FAO) is one of these international organizations that has developed a weighty authority in terms of regulations, but its rule-making processes should cause those affected to question the validity of such regulations. Typically, international organizations get input from numerous committees, commissions, and experts when crafting regulations. This embraces the propensity for the organization to gather the information it needs to hear rather than getting it from independent investigations, swaying the data. When it comes to the global regulations regarding food standards, these input organizations include the World Health Organization, the Codex Alimentarius Commissions (CAC), and members of the FAO. Together, these bodies create the Codex Alimentarius (the Code).

The Code is the set of standards produced by the FAO in conjunction with the World Health Organization (WHO) to "protect the health of consumers and ensure fair practices in the food trade". ¹¹³ By reducing barriers to trade, the Code's goals include reducing hunger and poverty while helping farmers. ¹¹⁴ In order to draft these regulations which were originally suggestive and nonbinding, the FAO and WHO created the

^{107.} Edoardo Chiti, Where does GAL find its legal grounding?, 13 INT'L J. OF CONST. L. 486, 487 (2015).

^{108.} Id. at 488.

^{109.} Benedict Kingsbury & Lorenzo Casini, Global Administrative Law Dimensions of International Organizations Law, 6 INT'L ORG. L. REV. 319, 325 (2009).

^{110.} Michael A. Livermore, Authority and Legitimacy in Global Governance: Deliberation, Institutional Differentiation, and the Codex Alimentarius, 81 N.Y.U. L. REV. 766, 767 (2006).

^{111.} Kingsbury, supra note 109, at 355.

^{112.} Id.

^{113.} Codex: Milk and Milk Products, supra note 81.

^{114.} Food & Agric. Org. & World Health Org., The Codex System: The Codex Alimentarius Commission and How It Works, in Understanding the International Food Trade, available at http://www.fao.org/3/w9114e/W9114e06.htm (last visited Feb. 7, 2022) [hereinafter Codex and the International Food Trade].

CAC. The CAC is made up of representatives from 188 member countries, a European Union representative, plus heavy participation from non-state actors. 115

The Code defines milk in its *General Standard for the Use of Dairy Terms (GSUDT)* in Section 2.1 as "the normal mammary secretion of milking animals." This is the definition that Big Agriculture and proponents for the dairy industry, like the International Dairy Federation (IDF), are pushing for or have successfully lobbied for around the globe. Section 4.2.1 specifies that "only a food complying with the definition in Section 2.1 may be named 'milk." The Code does create exemptions by not applying the prohibition when "the exact nature of [the non 2.1 compliant product] is clear from traditional usage or when the name is clearly used to describe a characteristic quality of the non-milk product" in Section 4.6.2.¹¹⁹ This does not clearly allow the use of the word milk for plant-based products, allows room for nations to add additional requirements for plant-based milks to meet, and is unevenly applied.

This definition skews the market in favor of traditional dairy products as dairy alternatives need to alter their names in different countries and worry about varying rules. Although, it seems that the dairy lobby has not reached to FAO to ban the use of the words *milk*, *cheese*, *yogurt*, etc. for all non-animal products, the IDF which works closely with the FAO has espoused that the definition should be narrower and reads the exemption to still prohibit plant products, resulting in ambiguity. 120

The current CAC website describes international food standards as "voluntary." However, the Sanitary and Phytosanitary (SPS) Agreement, passed during the Uruguay Round negotiations, gives

^{115.} Livermore, *supra* note 110, at 781; U.N. FAO, *About Codex Alimentarius*, *available at* http://www.fao.org/fao-who-codexalimentarius/about-codex/members/en/ (last visited Feb. 7, 2022).

^{116.} Joint FAO/WHO Food Standards, Codex Alimentarius: Milk and Milk Products 176 (2^{nd} edition 2011) [hereinafter GSUDT].

^{117.} International Dairy Federation, *The Codex General Standard for the Use of Dairy Terms- Its Nature, Intent, and Implications*, BULLETIN OF THE INT'L DAIRY FED'N, 507/2020 at 3 (Nov. 2020), *available at* https://www.fil-idf.org/wp-content/uploads/2020/11/IDF-Position-Paper-The-Codex-general-standard-for-the-use-of-dairy-terms-FINAL.pdf (last visited Feb. 7, 2022) [hereinafter IDF Bulletin].

^{118.} GSUDT, supra note 116, at 177.

^{119.} Id. at 178.

^{120.} IDF Bulletin, supra note 117, at 3.

^{121.} FAO, supra note 115.

international food standards weight. A difficulty in international food trade is ensuring health standards do not fall below consumer expectations in another part of the world. Evidently, food standards can also be a form of protectionism for domestic producers. Are To prevent this, the SPS agreement allows governments to take only the sanitary and phytosanitary measures that are necessary to protect human health. With a goal of harmonizing member countries' regulations, the SPS agreement adopted the Codex Alimentarius Commission's standards. Member countries are encouraged to use these standards but can set their own. If they set their own, they are only allowed to adopt higher standards if there are scientific justifications, the measures only apply to the extent needed to protect health and are not more trade-restrictive than necessary to protect health.

INTERNATIONAL LAWS POTENTIAL INFLUENCE OVER US LAW

In the United States Congress, the "Dairy Pride Act" or "Defending Against Imitation and Replacements of Yogurt, Milk, and Cheese to Promote Regular Intake of Dairy Everyday Act" was a 2017 attempt to enforce the standards of identity of milk and reduce the confusion around dairy alternatives. This bill, introduced by Tammy Baldwin, along with other proposals to the FDA, sought to preclude the use of the words "milk" and "cheese" for products made from plants. If passed, plant-based products would need to be labeled as "soy beverage" or "oat-product." The bill did not pass Congress, but has since been reintroduced, and Scott Gottlieb, the Trump Administration's FDA head, had expressed approval for proposals along those lines. Although it is

^{122.} Livermore, supra note 115, at 774.

^{123.} Codex and the International Food Trade, supra note 114.

^{124.} *Id*.

^{125.} Id.

^{126.} WTO Marrakesh Agreement, Art. 2.2 of the SPS Agreement

^{127.} Defending Against Imitations and Replacements of Yogurt, Milk, and Cheese to Promote Regular Intake of Dairy Everyday Act, H.R. 778, 115th Cong. (2017).

^{128.} Alexander Nieves, Gottlieb: FDA to Crack Down on Labeling Nondairy Products as 'Milk', POLITICO, (July 17, 2018), available at https://www.politico.com/story/2018/07/17/almond-lactate-nondairy-milk-scott-gottlieb-725974 (last visited Feb. 9, 2022).

^{129.} Id.

unclear whether the Biden administration will completely rebuke this proposal, it is likely.¹³⁰ President Biden has pledged to save the American dairy industry with a plan that does not attack the competing industries.¹³¹ That being said, the Dairy Pride Act had significant bipartisan support.¹³²

For now, since the Dairy Pride Act did not become law, grocery store shelves in the U.S. are filled with plant-based products using the words "milk," "cheese," and "yogurt." The current Food and Drug Administration regulations do not allow this on their face, but thanks to a wave of court rulings, animal and plant products are sharing the titles.

In Ang v. Whitewave Foods Co., Plaintiffs alleged that the makers of Silk products, a popular brand of plant-based beverages, were misbranded because the FDA defines "milk" as "mammary secretions." Since almonds, coconuts, etc. do not lactate, they should not be called "milk." However, the court decided as a matter of law that the FDA's definition only defines what milk is and does not define what milk cannot be. Since the FDA has not said what a plant-based beverage is and "almond milk," "soymilk," etc. were the common names that "clearly convey the basic nature and content of the beverages while clearly distinguishing them from milk," the case was dismissed in favor of the plant-based beverages. 135

Similarly, in *Gitson v. Trader Joe's Co.*, plaintiffs argued that soymilk did not fit into the standard of identity of milk. The court explains that there was no reliance on the word "milk" for nutrition, so the claim for misbranded milk was dismissed. This was also held in the Ninth Circuit in *Painter v. Blue Diamond*, holding that "the consumer could not plausibly allege that a reasonable consumer would be deceived into believing that the almond milk products were nutritionally equivalent to dairy milk based on their package labels and advertising." If

^{130.} See Caroline Grunewald, Biden Has a Plan to Save America's Dairy, but Does it go Far Enough?, THE HILL, (Aug. 20, 2020), available at https://thehill.com/opinion/energy-environment/512948-biden-has-a-plan-to-save-americas-dairy-but-does-it-go-far-enough (last visited Mar. 22, 2022).

^{131.} Id.

^{132.} Troitino, supra note 11.

^{133.} Ang v. Whitewave Foods Co., 2013 WL 6491353 (N.D. Cal. Dec. 13, 2013).

^{134.} Id.

^{135.} Id. at 12.

^{136.} Gitson v. Trader Joe's Co., 2013 WL 5513711 (N.D. Cal. Oct. 4, 2013).

^{137.} *Id.* Although it should be noted that Trader Joe's now brands its plant-based drinks as "beverages" not "milk." *See* Trader Joes, PRODUCTS, *Unsweetened Almond, Cashew & Macadamia*Nut

Beverage,

available

at https://www.traderjoes.com/home/products/pdp/061942 (last visited Mar. 22, 2022).

^{138.} Painter v. Blue Diamond Growers, 757 Fed. Appx. 517, 518 (9th Cir. 2018).

international law continues to allow room for stricter trade barriers with food standards regarding milk products, Congress might act to undo the progress plant-based companies have made in the industry.

INTERNATIONAL LAW'S INFLUENCE ON EU REGULATIONS

Similar to the Dairy Pride Act, European Union farmers led efforts to narrow milk's definition. In 2017, the European Court of Justice granted dairy producers' requests to ban the terms "milk" and "butter" for plant-based beverages. In October 2020, the European Parliament passed a proposal to further ban descriptions on non-dairy products. This proposal does not even allow "cream imitation" or "yogurt-style." Even stricter rules are being considered in Amendment 171 to EU Regulation 1308/2013 which would prohibit plant-based products from being compared to animal products at all. Italian

The European Union regulations do have some exemptions like the Code does, but the proposed amendment would wash these exemptions away. 144 This is why it is worth fighting over the word milk. Some proponents of the plant-based industry have argued it is unnecessary as the plant-based industry can still be disruptive by deliberately misspelling the word to be "malk," "myllk," or "M*lk." However, the IDF has released documents interpreting the Code and considers these deliberate misspellings as an infraction on the rule. 146 So although these arguments are clever, ending the debate once and for all is necessary.

Since European food safety laws seek to harmonize regulations among the EU's member states, there is great deference to international law. If the FAO's definition of milk was broader, there is a higher likelihood that European regulations would reflect that.

^{139.} EU Court Bans Dairy-Style Names for Soya and Tofu, BBC NEWS (June 14, 2017), available at https://www.bbc.com/news/business-40274645 (last visited Mar. 22, 2022).

^{140.} Case C-422/16, Verband Sozialer Wettbewerb evidence v, TofuTown.com GmbH, 2017 E.C.J.

^{141.} Isabella Kwai, E.U. Says Veggie Burgers Can Keep Their Name, N.Y. TIMES (Oct. 23, 2020), available at https://www.nytimes.com/2020/10/23/world/europe/eu-plant-based-labeling.html (last visited Mar. 22, 2022).

^{142.} *Id*.

^{143.} Eur. Parl. Doc. (A8-0198/2019) at 172, available at https://www.europarl.europa.eu/doceo/document/A-8-2019-0198_EN.pdf (last visited Mar. 22, 2022).

^{144.} Id.

^{145.} Iselin Gambert, Got Mylk: The Disruptive Possibilities of Plant Milk, 84 BROOK. L. REV. 801 (2019) available at https://brooklynworks.brooklaw.edu/blr/vol84/iss3/3 (last visited Mar. 22, 2022).

^{146.} IDF Bulletin, supra note 117, at 30.

A PROPOSAL TO ENCOURAGE COUNTRIES TO ESCHEW RESTRICTIVE LABELING

Under international law, countries are presumptively required to follow the code as a floor and not a ceiling for food standards. If the trade agreements required countries to allow plant-based milks to compete with the dairy industry, governments and the dairy industry would be prompted to consider environmental concerns consumer have. By deemphasizing dairy, there would also be a significant shift toward more sustainable options, thus decreasing cows' hoofprints on the environment.

EXPANDING THE DEFINITION OF "MILK"

If the United Nations is committed to each of the 17 Sustainable Development Goals equally, its member countries like the United States and bodies like United Nations Environment Programme (UNEP) need to direct the World Trade Organization (WTO) and FAO to change restrictive labeling laws. Specifically, it needs to settle the debate causing the "Milk Wars." For environmental, economic, and health reasons, the Code's definition in Section 2.1 should be more inclusive to help reach the goals set by the U.N. and its bodies. An inclusive supplemental definition would read something like "beverages derived from plants or nuts which provide a significant amount of nutrition and have the texture and quality that is associated with that of the public's perception of milk." The specifics of the nutritional requirements and perceptions can be reworded as necessary, but there is room to make a definition that differentiates between juices and dairy but includes plant-milk.

The modification of the definition of milk to eliminate exclusive reference to lactation or "mammary secretions" can have a broad reach on numerous SDGs. Confining the use of the words to animal products does not protect consumers. Instead, it hurts the environment by promoting a methane intensive industry, so countries and bodies committed to the climate goals should support the natural decline of dairy and the organic increase of dairy alternatives.

DEEMPHASIZING DAIRY

The statistics about current agricultural practices and the negative impacts on climate change indicate that dairy cannot continue to carry on business as usual if the global community wants to meet the 2030 SDGs. International law should seek opportunities to limit the harmful

externalities that come from the four-legged, spotted creatures across the globe.

A SHIFT TO MITIGATE HARMS

This proposition would likely find support from UN bodies, like the United Nations Environment Program (UNEP). As explained above, the UNEP is advocating for a gradual transition away from dairy because of its impact on climate change. By making regulations more attractive to the plant-based industry, international law would be facilitating this shift.

The IBIS Plant Milk report continues to cite labeling and marketing regulations as potential issues for the industry. It directly states that "[the passing of the Dairy Pride Act] could have detrimental effects on the Soy and Almond Milk Production Industry." Passing and enforcing laws that are detrimental to the more sustainable industry is not in line with the UNEP's guidelines. There is an inverse relationship between dairy and dairy alternatives consumption, so restrictive labeling would not encourage less consumption of dairy products which is needed to reduce GHGs

Beyond the environmental challenges, there are other disturbing aspects of the dairy industry that could be mitigated if regulations did not favor the entrenched industry. Milk is over-produced because of the false notions of its superiority and support from governments.¹⁵⁰ There are more than a billion pounds of cheese in storage in the United States due to overproduction.¹⁵¹ The United States government tries to deal with this surplus in ways that contribute to systemic racism, like dumping low nutritional value products on African American and Latinx communities which perpetuates health problems.¹⁵²

CONSUMER CONFUSION AS A FACADE FOR PROTECTIONISM

^{147.} UNEP, supra note16.

^{148.} O'Connor, supra note 88, at 43-44.

^{149.} UNEP, supra note 16

^{150.} Kelsey Gee & Julie Wernau, A Cheese Glut is Overtaking America, WALL ST. J. (May 17, 2016), available at https://www.wsj.com/articles/a-cheese-glut-is-overtaking-america-1463477403 (last visited Mar. 22, 2022).

^{151.} *Id*

^{152.} Freeman, supra note 21.

The restrictions discussed on the use of the word "milk" are all under the guise of consumer protection.¹⁵³ Lobbyists for the dairy industry claim that using words like "milk," cheese, and yogurt for products that are not from cows appropriates the goodwill of dairy and misleads consumers.¹⁵⁴ These proponents of the regulations argue that consumers are being tricked and cite nutritional deficiencies in dairy alternatives as a harm.¹⁵⁵ However, there is no evidence of actual confusion.

Plant and Animals Can Share the Word "Milk."

The dairy farmers' fuss suggests that the word milk is theirs. 156 as if a trademark or a certified mark that is an indicator of source. They claim their animosity towards the dairy alternative industry is only because dairy alternatives rip consumers off. However, the dairy alternative market uses the word "milk" not the broad concept of it. Brands actually spend a lot of money to distance the alternative product from ordinary cow milk in an attempt to add value. 157 This extra value, whether it be nutritional, ethical, or aesthetic, is why consumers are willing to pay a premium for the product.¹⁵⁸ This difference will ensure that appropriate qualifiers, like "non-dairy" and "plant-based" will always be used. 159 These qualifiers are enough of a hoop for the alternative sector to jump through. Traditional cow's milk does not need to label that it is animal product, but perhaps it should if the industry is worried and believes that is where the value lies. In fact, the GSUDT provides for this in Section 4.1.2 by allowing the omission of the animal only if "the consumer would not be misled by [it.]"160 If there was confusion as the dairy industry claims, labeling it as "cow milk" would be required.

^{153.} IDF Bulletin, supra note 117.

^{154.} *Id.*

^{155.} *Id*.

^{156.} Bowles, supra note 7.

^{157.} See O'Connor, supra note 88, at 15, 21, 24, 29. This report cites the marketing of the product's distinct ingredients is a success factor as well as growing popularity of soy and almond milk products directly to consumers' increased concerns regarding growth hormones and antibiotics in cow's milk as well as allergy, intolerance, and genetic disorders as driving dairy alternative's demand.

^{158.} Id.

^{159.} PBFA, Plant Based Foods Association Tells FDA that Efforts Restrict "Milk" Labeling Would be Unnecessary, Costly, and Unconstitutional (Jan. 28, 2019), available at https://www.plantbasedfoods.org/plant-based-foods-association-tells-fda-that-efforts-to-restrict-milk-labeling-would-be-unnecessary-costly-and-unconstitutional/ (last visited Mar. 22, 2022).

^{160.} GSUDT, supra note 116.

In the Code's "Standard for Non-Fermented Soybean Products," the term "soybean beverage" is used instead of "soymilk." However, the drafters found it necessary to include a footnote to clarify that the term "soymilk" is often used. Suggesting, there would be confusion if just "soybean beverage" was used. Additionally, the beverage is described as a "milky liquid" numerous times. 163

If the word "milky" is necessary to describe the beverage, then it seems appropriate to call it as such.

DAIRY COWS DO NOT OWN THE WORD MILK.

Dictionary entries for "dairy" contain secondary and tertiary definitions including plant-based products. The Oxford Dictionary's second definition reads "the white juice of certain plants."¹⁶⁴ As Gambert points out, Big Ag does not own the word milk. She further explains that using only the first definition of an opaque white fluid produced by female mammals is a power move over the female reproductive system. There has also been U.S. jurisprudence to suggest that it could be a free speech violation. Again, confusion is unlikely since plant products are a recognized meaning of the word.

PLANT-BASED PRODUCTS ARE NOT PART OF A "NEW VEGAN/LIBERAL AGENDA."

The etymology of the word for lettuce indicates that it shares a root with the Latin word for milk because of the white substance obtained from the vegetable.¹⁶⁸ The Latin word for lettuce is "lactuca," and the

^{161.} Joint FAO/WHO Food Standards Programme, CXS 1-1985, General Standard for the Labelling of Prepackaged Foods, at 2, available at http://www.fao.org/fao-who-codexalimentarius/sh-

proxy/en/?lnk=1&url=https%253A%252F%252Fworkspace.fao.org%252Fsites%252Fcode x%252FStandards%252FCXS%2B1-1985%252FCXS 001e.pdf (last visited Mar. 22, 2022).

^{162.} Id.

^{163.} GSUDT, supra note 116, at 2.2.1.1 and 2.2.1.2 and 2.2.1.3.

^{164.} Benjamin Kemper, *Nut Milks are Milk, Says Almost Every Culture Across the Globe*, SMITHSONIAN (Aug. 15, 2018), *available at* https://www.smithsonianmag.com/history/nut-milks-are-milk-says-almost-every-culture-across-globe-180970008/ (last visited Feb. 5, 2022); *Dairy*, OXFORD ENGLISH DICTIONARY

^{165.} Gambert, supra note 145, at 811-812.

^{166.} Id.

^{167.} Kathleen Justis, Lactose's Intolerance: The Role of Manufacturers" Rights and Commercial Free Speech in Big Dairy's Fight to Restrict Use of the Term "Milk," 84 BROOK. L. REV. 999, 1010 (2019).

^{168.} Lettuce, ONLINE ETYMOLOGY DICTIONARY, available at https://www.etymonline.com/word/lettuce#etymonline_v_6713 (last visited Feb. 5, 2022).

Latin word for milk is "lactis." Additionally, the translation of milk from Latin includes "milky juice of plants." The English word "lactate" clearly stems from the word "lactis." Therefore, the association of the white opaque liquids from plants and mammals' breasts is not new. Excluding plant-based products from using the word "milk" because plants do not lactate does not align with the words' origins and would not prevent confusion.

Plant-based milks appear in cookbooks from thousands of years ago, establishing that plant-based milk is nothing new. "Soymilk" has been used for many years, so banning the use of the terms "milk" with soy products would be disruptive. Constant rebranding and convoluted descriptions of milk products would be more likely to confuse consumers than the continued use of "soymilk."

LABELING DOES NOT CHANGE WHAT PLANT-BASED BEVERAGES ARE CALLED.

The restrictive labeling rules in the European Union show that the dairy farmers' concerns are much ado about nothing, or as Simon Lester and Inu Manak explain, "[i]t's [n]o [u]se [c]rying [o]ver [s]pelt [m]ilk."¹⁷² Regulations restricting the use of the word "milk" to animal products in Europe have shown that the label does not really matter.¹⁷³ Supermarkets still group the alternatives with cow milk, and retailers use the word milk on price tags and websites and buy search terms using the restricted words.¹⁷⁴ It is unclear whether consumers have stopped noticing the difference between cow milk and plant milk or if they just do not care, but either way, consumers and retailers will still consider dairy alternatives to be "milk," even if they cannot be labeled as such.¹⁷⁵

^{169.} Milk, WHITAKER'S WORDS, available at http://archives.nd.edu/cgibin/wordz.pl?english=milk (last visited Feb. 5, 2022); see also Lettuce, WHITAKER'S WORDS, available at http://archives.nd.edu/cgi-bin/wordz.pl?english=lettuce (last visited Feb. 5, 2022).

^{170.} Id.

^{171.} Kemper, supra note 161.

^{172.} Simon Lester & Inu Manak, *It's No Use Crying Over Spelt Milk*, CATO AT LIBERTY: CATO INST. (Nov. 19, 2018, 3:07 PM), *available at* https://www.cato.org/blog/its-no-use-crying-over-spelt-milk (last visited Feb. 6, 2022).

^{173.} Tom Levitt, Dairy wars: when a glass of milk is really a glass of m*lk, THE GUARDIAN (July 23, 2017), available at https://www.theguardian.com/lifeandstyle/shortcuts/2017/jul/23/dairy-milk-court-animal-plant-nut (last visited Feb. 6, 2022).

^{174.} Id.

^{175.} Id.

On the other hand, companies with plant-based alternative products who are trying to break into the market are negatively affected by the bans. The alternative industries are further kneecapped by the fight over the word "milk." Supporters of the dairy industry constantly scrutinize these companies, forcing them to litigate the legitimacy of their brand names. A finance report claims that "stringent regulations imposed on the manufacturing of dairy alternatives, as they are directly consumed by consumers, are expected to be the key threat to the industry's participants." The regulations include labeling and the definition of milk which is hampering plant-based growth in the EU.

Accepting the fact that plant-based products do need qualifiers like "soy," "almond," "plant-based," or "oat," the industry is trying to differentiate from traditional dairy. The target markets have grown accustomed to calling their favorite thing to put in cereal "soymilk." Now, companies are stuck playing linguistic gymnastics to convey what the product is. Some of the results are laughable like "pulverized almond meat" or "liquidated almond mash," butter, and cheese without saying the forbidden words. Therefore, it would be more confusing for consumers to find their favorite plant-based milks be re-labeled as "soy beverages," "white plant juice," or "nut spreads."

^{176.} O'Connor, supra note 88; see also Annisa Leialohilani & Alie De Boer, EU Food Legislation Impacts Innovation in the Area of Plant-Based Dairy Alternatives, TRENDS IN FOOD SCI. & TECH. 104, 264 (2020).

^{177.} See generally id. A key success factor to the dairy alternative industry is its ability to establish brand names. By going after their names, dairy is directly attacking its success.

^{178.} See Ang v. Whitewave Foods Co., No. 13-CV-1953, 2013 WL 6492353, at *1 (Dist. Ct. N.D. Cal. 2013); Gitson v. Trader Joe's Co., No. 13-CV-01333, 2013 WL 5513711, at *1 (Dist. Ct. N.D. Cal. 2013); Painter v. Blue Diamond Growers, No. 17-55901, 757 F. App'x. 517, at *518, *519 (9th Cir. 2018).

^{179.} Globe NewsWire, Global Dairy Alternatives Market Outlook to 2024: Focus on Soy, Almond, and Rice Milk Opportunities, YAHOO! (Aug. 2, 2019), available at https://www.yahoo.com/now/global-dairy-alternatives-market-outlook-091519619.html (last visited Feb. 7, 2022).

^{180.} See Leialohilani, supra note 176.

^{181.} PBFA, supra note 159.

^{182.} Mayukh Sen, What Could We Call Plant Milks That Aren't Actually Milk?, FOOD52 (Mar. 3, 2017), available at https://food52.com/blog/18813-what-could-we-call-plant-milks-that-aren-t-actually-milk (last visited Jan. 31, 2022).

CONSUMERS DO NOT NEED TO BE TOLD WHAT MILK IS

There are many inconsistencies on grocery store shelves.¹⁸³ No one believes that gummy bears are made from bear meat. If the qualifier gummy negates the need for the standard of identity for meat, then why should the words "soy" or "almond" not negate the need for milk's standard of identity? The word "bear" describes what the candy looks like. Here, the beverage looks and feels like milk, so the using the word "milk" is fitting. It also seems contradictory that there is no butter in peanut butter, but the rules banning vegan spread from using the word do not apply to JIF.¹⁸⁴ The FDA and other regulatory bodies are acting like consumers are stupid.¹⁸⁵ Honey does not come from bears, but the bottle might indicate so. And like the so-called problem here, shoefly pie contains no flies. Animal crackers contain no animals. Riced cauliflower contains no rice. Yet, these items are not likely to get a name change or repackaging.

Consumers know that almonds do not lactate. ¹⁸⁶ If consumers do not understand the differences between almonds and cows, this signals a problem that is much deeper than standards of identities. That is "Americans are basically agriculturally illiterate." ¹⁸⁷ In the 1990s, the Department of Agriculture conducted a study that backed this claim up. At that time, only four out of five respondents knew that hamburgers were not made from pig. ¹⁸⁸ This does not mean the dairy industry is correct about the need for labeling. For, in the dairy industry itself there are some

^{183.} See Ellie Krieger, How Food Companies Use Packaging to Fool You into Thinking an Item is Healthful, WASH. POST (Oct. 23, 2019), available at https://www.washingtonpost.com/lifestyle/wellness/how-food-companies-use-packaging-to-fool-you-into-thinking-an-item-is-healthful/2019/10/23/40304d84-e9d4-11e9-9c6d-436a0df4f31d story.html (last visited Jan. 31, 2022).

^{184.} See Umair Irfan, "Fake Milk": Why the Dairy Industry is Boiling Over Plant-Based Milks, Vox (Dec. 21, 2018), available at https://www.vox.com/2018/8/31/17760738/almond-milk-dairy-soy-oat-labeling-fda (last visited Jan. 31, 2022).

^{185.} See Cheryl Leahy, The FDA Should Protect Consumers, Not a Dying Dairy Industry, TRUTHOUT (Mar. 14, 2019), available at https://truthout.org/articles/the-fda-should-protect-consumers-not-a-dying-dairy-industry/ (last visited Jan. 31, 2022).

^{186.} Nieves, *supra* note 128. Former FDA Head, Scott Gottlieb, had enlightened the public numerous times by declaring "an almond doesn't lactate."

^{187.} Caitlin Dewey, *The Surprising Number of American Adults Who Think Chocolate Milk Comes from Brown Cows*, WASH. POST (June 15, 2017), available at https://www.washingtonpost.com/news/wonk/wp/2017/06/15/seven-percent-of-americans-think-chocolate-milk-comes-from-brown-cows-and-thats-not-even-the-scary-part/ (last visited Jan. 31, 2022).

^{188.} Robert H. Birkenholz, *Pilot Study of Agricultural Literacy* (Dec. 1993), *available at* https://files.eric.ed.gov/fulltext/ED369890.pdf (last visited Jan. 31, 2022).

incorrect notions. For example, seven percent of adult Americans supposedly believe chocolate milk comes from brown cows. 189

On top of that, Cheryl Leahy explains that under the dairy lobby's own definition of "lacteal secretion of a healthy hooved mammal," a lot of cow milk would not pass muster. Because of the conditions that cows are often raised in, they are not considered "healthy" as required by the standard of identity. Treated as mere milk-producing machines, they regularly suffer from a number of health problems, such as painful mastitis, skin and hoof infections, diarrhea, digestive diseases and lameness. These moral concerns are reasons why many choose dairy free alternatives, but they also indicate that cows supplying the milk are not "healthy hooved mammals."

Although many dairy farmers and marketing schemes like to depict happy cows, that concept is a little morphed. Many animal advocate groups publish pictures and videos exposing the dairy industry's harmful practices. Lactation is part of the female reproductive system and is not an inherent trait of cows, as many think.

Milk production is the result of being repeatedly impregnated. ¹⁹⁷ The semen is extracted from the bull using a variety of methods, all of which are too graphic for this Note. ¹⁹⁸ The sperm is then separated to increase the likelihood of producing female calves. ¹⁹⁹ Next, the cows are put onto a rack that is allegedly called by some farmers, "the rape rack," where the cows are artificially inseminated, again, by methods that are

^{189.} Dewey, *supra* note 187. ("Seven percent of all American adults believe that chocolate milk comes from brown cows, according to a nationally representative online survey commissioned by the Innovation Center of U.S. Dairy. If you do the math, that works out to 16.4 million misinformed, milk-drinking people.").

^{190.} Leahy, supra note 185.

^{191.} Id.

^{192.} Id.

^{193.} O'Connor, supra note 86.

^{194.} Gregory Solman, *Deutsch's "Happy Cows" Keep CMAB Content*, ADWEEK (Aug. 18, 2003), *available at* https://www.adweek.com/brand-marketing/deutschs-happy-cowskeep-cmab-content-66475/ (last visited Jan. 31, 2022); *see Happy Cows? You Decide*, PETA, *available at* https://www.peta.org/features/unhappy-cows/ (last visited Jan. 22, 2022).

^{195.} See Exposing the Truth. Inspiring Change, ANIMAL OUTLOOK, available at https://animaloutlook.org/ (last visited Jan. 31, 2022).

^{196.} Mackenzie L. April, Readying the Rape Rack: Feminism and the Exploitation of Non-Human Reproductive Systems, DISSENTING VOICES 51, 58 (Aug. 9, 2019), available at http://hdl.handle.net/20.500.12648/2779 (last visited Jan. 31, 2022).

^{197.} Hayes, supra note 44, at 287-289.

^{198.} Id.

^{199.} *Id*.

too graphic for this Note.²⁰⁰ This process is not portrayed by the cartoon cows on the carton. When consumers see the label, they are misled into thinking they are supporting a good life for animals that must be milked.

THE "GOT MILK?" AD CAMPAIGN DESCRIBES PLANT-BASED MILKS TOO

If farmers ask why plant-based alternatives insist on associating their products with milk, the answer can be found by the California Milk Processor Board's logic for the infamous "Got Milk?" campaign.²⁰¹ The board's strategy was to emphasize certain situations that required milk, not soda.²⁰² The creative brief said "there are times when only milk will do, when milk is irreplaceable. Running out will lead to angst, anger, and general chaos."²⁰³ This indirectly illustrates that dairy alternatives are "milk," because unlike Snapple and Coke, they can be used as a substitute for the product advertised.²⁰⁴ Dairy alternatives have the same qualities that make cow's milk the perfect complement to cookies, peanut butter, coffee, and cereal, and, therefore, wish to be called "milk." This quality would not be portrayed by words like "juice."

3. Alignment with Anti-Protectionist and Sustainability Goals

The main protectionism concerns that brought the SPS agreement to fruition regarded countries favoring domestic markets over foreign trade. Labeling was often a protectionist trade barrier that countries tried to disguise as a sanitary measure. The SPS agreements requirements for higher standards seek to prevent this protectionism. Therefore, labeling laws that seek to prevent competition rather than prevent inferior food should be a clear violation.

The restrictive definition of milk is a labeling law that seeks to prevent competition. By prohibiting the use of the words "milk" or "cheese" with plant-based dairy alternatives, the FAO is allowing protectionism. Instead of protecting the domestic sellers, it protects the entire domestic dairy industry of that country against rising competitive markets. Proponents of a narrow definition will try to disguise this labeling law as a sanitary measure, claiming animal-based milks have

^{200.} April, supra note 196; Hayes, supra note 44, at 288.

^{201.} See Manning, supra note 8, at 39.

^{202.} Id.

^{203.} Id. at 40.

^{204.} Id. at 30.

^{205.} David Victor, The Sanitary and Phytosanitary Agreement of the World Trade Organization: An Assessment After Five Years, 32 N.Y.U. J. INT'L L. & POL. 865 (2000).

^{206.} Id.

greater health benefits. However, even if it was clearly proven that cow's milk was more nutritional than plant-based alternatives, precluding the use of the word "milk" with qualifiers goes beyond the need to protect health, and other measures could be taken that do not restrict trade like requiring appropriate disclaimers.

Article 3.1 of the SPS Agreement encourages states to adopt measures based on international standards.²⁰⁷ As mentioned, the Code, the FAO's international food standards does provide an exemption for non-milk that is clearly marked.²⁰⁸ Although this exemption should just be part of the definition and its application is questionable, it shows that banning the use of the words on all non-animal products is not in line with international standards. Therefore, restrictive labeling should also be a violation of article 3.1.

This violation would be much clearer if the Code was revised to include plant-based alternatives in the definition, rather than being an exception to the prohibition. In addition to the SPS agreement, there is also the WTO's Technical Barriers to Trade (TBT) agreement.²⁰⁹ The principle of this agreement is that a barrier to trade should only be used for legitimate objectives not to protect certain markets.²¹⁰

In the 1990s, the WTO panel was faced with controversy over the European Union's ban on hormone treated meats.²¹¹ It was well-known that these measures were based on European opinions and masked as sanitary and phytosanitary concerns.²¹² The United States challenged this ban because of an estimated loss of over \$200 million, claiming it violated GATT, SPS, TBT, and Agreement on Agriculture agreements.²¹³

The WTO panel agreed with the United States that the ban violated the SPS agreement.²¹⁴ The European Union appealed this ruling and was given time to conduct a risk-assessment of the disputed hormone-treated meat.²¹⁵ Refusing to lift the ban, the United States put tariffs and trade

^{207.} Agreement on the Application of Sanitary and Phytosanitary Measures, GATT B.I.S.D., art. 3.1 (1995).

^{208.} GSUDT, *supra* note 116, at 178.

^{209.} Codex and the International Food Trade, supra note 114.

^{210.} *Id*

^{211.} Lisa K. Seilheimer, The SPS Agreements Applied: The WTO Hormone Beef Case, 4 Env't.

L. 537 (1998).

^{212.} Id.

^{213.} Id.

^{214.} Seilheimer, supra note 211.

^{215.} *Id.*

sanctions on Europe.²¹⁶ In 2008, the WTO panel reversed its decision because of the scientific studies.²¹⁷

Here, plant-based milk is not like hormone-treated meat. The health risks that are still questioned under the European Union studies were not merely about nutritional value.²¹⁸ Instead, the studies purported that the hormones were carcinogenic or could be carcinogenic.²¹⁹ The data regarding plant-based milk does not suggest that dairy alternatives put consumers at risk if consumed.²²⁰ The risk would only be in comparison to other products that are healthier than the alternatives. If this is a risk that is scientifically justified for, then chocolate milk should not be allowed the title of "milk" as the added sugars negate the high protein.²²¹ Nevertheless, there is no inherent health risk.²²² Many dairy alternatives are fortified and will be properly labeled to show that.²²³ Additionally, many dairy alternatives have health benefits that are superior to milk.²²⁴ Therefore, this is an opportunity for anti-protectionist policies to embrace sustainability initiatives.

PROBLEMS WITH OTHER STRATEGIES

This note only explores the regulatory aspect of labeling dairy alternatives. As mentioned in the beginning, many activists would like to see dairy die, but there are currently far too many cows to put out to pasture. To promote all SDGs, the transition needs to be natural and gradual. In a free market global economy, people should have the choice. That is why this note promotes only letting some safeguards to the dairy industry down. With easier access to dairy-free alternatives, more people can afford to try and switch to plant-based products, thereby, decreasing the dairy industry's footprint.²²⁵

^{216.} Id.

^{217.} Seilheimer, supra note 211.

^{218.} Id.

^{219.} Id.

^{220.} Angelica Sousa & Katrin A. Kopf-Bolanz, Nutritional Implications of Increasing Consumption of Non-Dairy Plant-Based Beverages Instead of Cow's Milk in Switzerland, 5:4 J. ADV. DAIRY RES. 1, 6 (Nov. 29, 2017).

^{221.} Get the Facts: Types of Milk Explained, MILK LIFE, available at https://gonnaneedmilk.com/articles/types-of-milk-explained (last visited Feb. 4, 2022).

^{222.} Parrish, supra note 65.

^{223.} Id.

^{224.} Sanae Ferreira, Going Nuts About Milk? Here's What You Need To Know About Plant-Based Milk Alternatives, Am. Soc'y for NUTRITION (Jan. 25. 2019), available at https://nutrition.org/going-nuts-about-milk-heres-what-you-need-to-know-about-plant-based-milk-alternatives/ (last visited Feb. 4, 2022).

^{225.} UNEP, supra note 16.

Despite Innovations, It is Still Difficult to Control Methane.

There are numerous technologies that can substantially decrease the amount of methane that is released when cows and other livestock relieve gas. Scientists have spent years developing cures for livestock's gas problem. An Australian startup, Sea Forest, has been cultivating seaweed with bromoform to block the gut's methane-producing enzymes. New Zealand dairy giant, Fonterra, is testing the effect on methane emissions. Another study that is still awaiting publishing suggests that 0.5% seaweed diet has potential to reduce methane emissions by 80%. Other alterations to feedstock include garlic, lemon grass, bovaer, and flaxseed. A Penn State Dairy fed a cow oregano; this method cut methane emissions and boosted milk production essentially debunking any worries about negatively affecting supply.

In addition to altering livestock's diets, there are efforts to capture the gas and use it as energy.²³³ Countries like Argentina are experimenting with cow backpacks, accessories the cows can wear to trap the methane, and companies like Cargill are putting manure in domes to collect the gas.²³⁴ Beyond the capture method, breeding strategies can influence the genetics that affect gaseousness.²³⁵ Although much more research is required, there are promising efforts in the works that merit policy-makers' attentions to at least attempt to achieve climate goals.²³⁶

However, the dairy industry is justifiably reluctant to jump on these solutions due to the potential drawbacks.²³⁷ The solutions that require the alteration of feedstock can be pricey and time consuming, but worst of all can alter the taste of milk.²³⁸ Other methods do not affect taste but can skew the production of milk downward.²³⁹ However, this problem can

^{226.} See Plumer, supra note 35.

^{227.} Jon Emont, Cows Make Climate Change Worse. Could Seaweed Help? WALL STREET J. (Oct. 31, 2020, 10:00 AM), available at https://www.wsj.com/articles/cows-make-climate-change-worse-could-seaweed-help-11604152802 (last visited Feb. 4, 2022).

^{228.} Id.

^{229.} Id.

^{230.} Id.

^{231.} Id.

^{232.} Hayes, *supra* note 44 at 35.

^{233.} Plumer, supra note 35.

^{234.} Plumer, supra note 35.

^{235.} Plumer, supra note 35.

^{236.} Plumer, supra note 35.

^{237.} Emont, supra note 227.

^{238.} Emont, supra note 227.

^{239.} Emont, supra note 227.

be adjusted for with proper compensation by governments. Milk is already overproduced because of government guarantees to buy up surpluses.²⁴⁰ If farmers were compensated to under produce instead, farmers would be more willing to try new things and break even, solving the methane and overproduction problems. This would require a multistep approach by governments, likely proving to be more difficult.

Subsidy Reductions Proposals Are Usually Stuck Down.

It is important to note that many argue that the dairy alternative industry is not what is hurting the traditional dairy sector or encouraging environmental degradation.²⁴¹ Instead, it is the ineffective subsidies that allow dairy farmers to overproduce, or EPA regulations that make farms unprofitable.²⁴²

In New Zealand, agricultural subsidies were canceled, but this might be considered unfeasible in most nations.²⁴³ Although this seemed like it would be devastating to New Zealand dairy farms, the dairy industry came back stronger in the long run.²⁴⁴ Economists and activists now use New Zealand as an example they wish Europe, and the United States would follow. A New York Times article explains "[subsidies] generally encourage inefficient farmers to grow unprofitable crops far beyond what consumers actually need, secure in the knowledge that the government will help protect them from loss."²⁴⁵ A New York Times article explains "[subsidies] generally encourage inefficient farmers to grow unprofitable crops far beyond what consumers actually need, secure in the knowledge that the government will help protect them from loss."²⁴⁶ By cutting subsidies altogether, agriculture struggled at first, but it now relies on science to be more efficient.²⁴⁷ The dairy farmers are also more

^{240.} FAO, Dairy Market Review, *Price and Policy Update*, July 2020. CB0408EN/1/07.20

^{241.} Chase Purdy, Plant-Based Milks Aren't the Reason US Dairies Are Struggling, QUARTZ (Dec. 21, 2019), available at https://qz.com/1772981/dairy-farmers-arent-that-nervous-about-plant-based-milk/ (last visited Feb. 6, 2022); Danielle Wiener-Bronner, America's Milk Industry is Struggling. Don't Blame Oat Milk, CNN BUSINESS (Nov. 21, 2019), available at https://www.cnn.com/2019/11/21/business/milk-industry-dean-foods/index.html (last visited Feb. 6, 2022)

^{242.} Julie Murphee, EPA Permitting Could Be the Straw the Breaks the Dairy Cow's Back, ARIZONA FARM BUREAU

^{243.} Wayne Arnold, *Surviving Without Subsidies*, N.Y. TIMES (Aug. 2, 2007), *available at* https://www.nytimes.com/2007/08/02/business/worldbusiness/02farm.html (last visited Feb. 7, 2022).

^{244.} Id.

^{245.} Id.

^{246.} Id.

^{247.} Id.

responsive to shifting demand and determine quantities of cow breeds based on that knowledge.²⁴⁸

Dairy programs in the United States cost taxpayers over \$200 million annually.²⁴⁹ Because of this economic intervention by the government, the United States butter prices are twice as much as in the rest of the world.²⁵⁰ Cheese and dry milk prices are also higher.²⁵¹ There have been proposals to cut down government subsidies in the United States, but they usually do not make it out of committee.²⁵² The supply management prong of the program has also caused over production.²⁵³ The debate over milk support programs is not new. Ronald Reagan set off the battle in the 1980s by not increasing the price support program.²⁵⁴ An article from 1981, *The Great Dairy Wars Begin*, notes that the dairy lobby spent more than \$1.2 million on candidates.²⁵⁵ This number has only grown since then.

Other proponents have proposed government programs to transition struggling farms to more sustainable crops with higher demands. As Gene Baur has claimed multiple times, "the best way to help dairy farmers is to get them out of dairy farming." Dairy farms can transition to producing other food sources that have a better impact on environmental and consumer health.

Elmhurst Dairy was a multigenerational dairy farm in New York that was once booming.²⁵⁸ When demand for dairy declined the farm faced

^{248.} See Id.

^{249.} Laurel Kays, *The Steep Cost of US Dairy Programs*, AMERICANS FOR TAX REFORM, (Aug 14, 2012).

^{250.} Id.

^{251.} Id.

^{252.} Cato Institute, *Reforming Federal Farm Policies*, TAX AND BUDGET BULLETIN, at 82, *available at* https://www.cato.org/tax-budget-bulletin/reforming-federal-farm-policies (last visited Mar. 22, 2022).

^{253.} See Press Release, Congressman Bob Goodlatte and Congressman David Scott, Goodlatte and Scott Statement on Dairy Amendment Vote (May 15, 2013); Price Fixing Milk, IDFA (Oct. 16, 2013), available at https://www.idfa.org/news/price-fixing-milk (last visited Feb. 7, 2022).

^{254.} Robert G. Kaiser, *The Great Dairy Wars Begin*, WASH. POST (Feb. 14, 1981), available at https://www.washingtonpost.com/archive/politics/1981/02/14/the-great-dairy-wars-begin/4d0f8124-f87f-4c0a-ace7-1b1201008d1d/ (last visited Feb. 7, 2022).

^{255.} Id.

^{256.} Baur, supra note 22.

^{257.} Gene Baur, America's Failing Dairy Farms, N.Y. TIMES (May. 3, 2019), available at https://www.nytimes.com/2019/05/03/opinion/letters/dairy-farms-milk-overproduction.html (last visited Feb. 7, 2022); Baur, supra note 22.

^{258.} See Lanna Garfield, A Major Dairy Producer Collapsed—now It's Making Nut Milks and Business is Booming, BUSINESS INSIDER (Apr. 22, 2017), available at

the economic hardships that many others are still feeling, Elmhurst decided to close and reinvest.²⁵⁹ The family reopened its business, focusing on plant-based products instead of dairy.²⁶⁰ Since then, Elmhurst has enjoyed much success and can be a model to revitalize the sector to match market trends. The CEO says, "it's about transforming with the times."²⁶¹ However, not all small farms have the capital to drop what they have done for generations and regroup.

Given the entrenched interests of dairy farmers in every state and country across the globe and the sheer magnitude of the subsidies and the planning need to transition, it would be very difficult for these ideas to gain enough traction and be implemented without causing more harm than good. This is why competition from the plant-based milk market would be a more effective solution at this time.

Conclusion

Dairy does not need to die to reduce the effects of GHGs. However, it cannot continue to bully its way to dominance. Plant and nut-based beverages may be called "fake milk," but the industry cannot call the environmental impacts of dairy "fake news." Consumers should be free to make the choice to consume or not consume dairy and animal products. Part of this choice requires giving brands access to the market.

In order to meet the Sustainable Development Goals by 2030, the United Nations must act to market plant-based products and make them available to those who want to buy them without interference from the dairy industry. This marketing should include the use of words commonly associated with the products like "milk" and "cheese." Both the environment and people with dietary restrictions benefit from looser standards in regulations.

Despite its flaws, dairy is here to stay. The entire planet is not quite ready to adopt a vegan lifestyle. There are some recipes that grandma would never dare make with milk from a nut or cheese made with soy, and there are far too many cows to let wander the countries. Allowing fair competition to the dairy industry is a great first step to making dairy more sustainable and providing the public with a fair choice.

https://www.businessinsider.com/dairy-farm-nut-milks-elmhurst-2017-4 (last visited Feb. 7, 2022).

^{259.} Elmhurst 1925, *Our Story*, available at https://elmhurst1925.com/pages/our-story (last visited Feb. 7, 2022).

^{260.} Garfield, supra note 258.

^{261.} Id.



PRIVATE INTERNATIONAL LAW: AN INTRODUCTION FROM AN AMERICAN PERSPECTIVE

David P. Stewart and Andrew Feinstein¹

Students in U.S. law schools are seldom introduced to the field of "private international law" – unlike many of their foreign counterparts, for whom it is often a required course of study. Yet it is an increasingly relevant and important area of law, one that U.S. practitioners are likely to encounter in a surprisingly wide range of contexts. Without an appreciation of its breadth, substance, and techniques, they may well find themselves at a disadvantage in dealing with foreign lawyers well-versed in the subject. This article provides an overview of the field of private international law (or "PIL") broadly conceived – what it encompasses, where it is developed, the areas where it is likely to be relevant, and the mechanisms and techniques it offers for resolving problems. The aim is to equip practitioners and students alike with a basic appreciation of its scope, sources, and principles so they can function effectively in an increasingly transnational legal environment.

By way of introduction, imagine that you are counsel to a U.S. manufacturer that has discovered a new way to make its products more cheaply and efficiently by using materials or components found only in a foreign country. The client has asked you to make the necessary legal arrangements for buying, transporting, and paying for those materials. You are unfamiliar with the foreign legal system (to say nothing of its business, banking, or trade practices) but understand they are all quite different from those in the United States, so the supplier (and its counsel) will likely not have the same understanding of (or expectations for) the necessary legal arrangements, beginning with the sales contract and

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arrangements for transportation and payment. Are there any relevant international agreements or mechanisms for bridging these differences? Which country's rules, if any, might apply in the drafting process? Also, in the event of disputes regarding interpretation or performance of the contract, where (and how) might they be resolved and what law might apply? May the contracting parties decide those issues for themselves?

Or consider this: your client is party to a divorce proceeding involving the negotiation of a joint custody agreement for the couple's minor children, with provisions for the payment of child support. The other parent is a citizen of, and has recently returned to, a foreign country. Both parents expect that the children will spend some time with each. If the court grants your client primary custody of either or both of the children, will the courts in the other country recognize and give effect to such an order? If the other party were to obtain a contrary order from those foreign courts, would the U.S. court be bound (or likely) to respect it? What if the other party fails to make agreed payments for child support? Are there any relevant international agreements?

Finally, suppose a U.S. company retains you to file suit against a foreign company over a dispute arising from a business transaction that occurred in the United States. Assuming for the moment that the relevant U.S. court would have jurisdiction over the dispute and the foreign company, how might you serve process on the foreign company in its own country? Would service by normal U.S. methods be effective or acceptable? What obstacles might you encounter in seeking discovery of relevant records and evidence from that defendant? Would it be possible to take the defendant's deposition in the foreign country? What if the defendant files a "counter-suit" in its courts? If you prevail in the U.S. litigation, would the judgment be enforceable in that country (or viceversa)? Are there better alternatives to seeking a judicial resolution in domestic court?

As the world has become more interconnected, and cross-border activity more common, such questions arise with increasing frequency. Where and how they can be resolved lies at the heart of PIL. For many lawyers, particularly in civil law systems, the term "private international law" is often understood to refer rather narrowly to the application by domestic courts of their national "conflicts of law" principles to determine what law applies in the context of cross-border transactions between private parties.² In each of the examples above, therefore, the

^{2.} We use the term "conflicts of law" to denote the problem faced by a court in determining which rules of law apply to a particular question when the issue has relevant connections to more than one legal system. It is typically a matter of the law of the forum. By

answers would be derived – at least in the first instance – from the law of the jurisdiction in which the disputes are presented for resolution.

A somewhat broader view includes (beyond the issues of applicable law) the rules of domestic law that determine, in cases with significant international connections, which court will have jurisdiction to address the dispute and where its eventual judgment might (or might not) be recognized and enforced. Those issues are complementary and commonly designated as "conflicts of jurisdiction." In the contemporary context, PIL also embraces efforts to *harmonize* substantive law norms in such "transnational" areas as commercial transactions and family law in order to minimize conflicts.

We take an even more expansive view of the scope of PIL. In our eyes, the field is better conceived as encompassing (in addition to conflicts of law, jurisdiction and enforcement of judgments, and substantive harmonization) both international "judicial assistance" in procedural matters and alternative methods of dispute settlement (such as arbitration, conciliation, and mediation) when used in the international context.

With this perspective, our intention is to introduce students and practitioners to the primary questions addressed by private international law, the international fora in which they are considered, and the main instruments that have been adopted to address them.³ Our approach is both topographical (that is, intended to sketch the field in broad strokes) and practice-oriented (rather than doctrinal); the aim is to provide an introductory survey rather than a detailed analysis. It undoubtedly offers a distinctly American perspective — one that reflects common-law approaches and conceives of the field more broadly than many trained in civil law systems would embrace. We certainly do not claim to offer a comprehensive overview. However, we have included a number of references to non-U.S. (as well as scholarly) sources for more in-depth information.

distinction, the term "choice of law" refers to the parties' exercise of "autonomy" in selecting which law should apply to the transaction in question (paradigmatically, in a commercial contract). The term "choice of court" refers to the parties' (typically contractual) agreement on a particular domestic court for the resolution of disputes arising from the transaction.

^{3.} PIL is rarely taught as a discrete course in U.S. law schools. Courses in "conflicts of law" are common although typically focused on the particular U.S. context (where the main issue is the application of the law of differing U.S. states). A recent and somewhat broader treatment is provided in Peter Hay, Patrick J. Borchers & Richard D. Freer, Conflict of Laws, Private International Law, Cases and Materials (16th ed. 2021); see also Gilles Cuniberti, Conflict of Laws, A Comparative Approach: Text and Cases (2nd ed. 2022).

After introducing the field in general terms, and the various international fora in which it is developed, we turn to some of the "core issues" that it engages, particularly conflicts of law, choice of forum, and dispute settlement mechanisms. We then discuss, in slightly greater detail, two areas of particular interest: international judicial assistance and international family law, after which we survey a broad (but hardly exhaustive) range of areas where PIL issues and instruments are implicated. Following a short overview of the particular challenges to U.S. participation in many of these projects posed by the structure of the U.S. legal system, we offer some concluding observations.

I. WHAT IS PRIVATE INTERNATIONAL LAW?

Despite its increasing relevance, PIL remains in some respects a loosely defined concept. At the most general level, the term covers legal issues arising between private parties in a transnational or cross-border context – that is, where one or more significant foreign elements⁴ are present so that the law of more than one domestic (or national) legal system is implicated.⁵ In this view, the main question for a court is "what law applies to this situation?" As suggested in our opening examples, whether the issue is one of substantive or procedural law, the first reference will be to the law of the jurisdiction deciding the issue.

It might be, of course, that the "conflicts" rules of that jurisdiction will direct the court to look to and apply a relevant foreign law. It could also be the case that the parties to a private cross-border transaction have agreed on which law will govern; if so, the question would be whether their "choice of law" is valid and enforceable in the jurisdiction considering the dispute. Are there "mandatory rules" of domestic law that apply no matter what the private parties have agreed (or that prevent application of the rules they have chosen)? A separate but related inquiry concerns how the content and meaning of foreign law is determined and applied in the host jurisdiction.

^{4.} What a "significant foreign element" is may vary depending on the issue in question. It might be, for instance, that some of the relevant acts or consequences took place in different jurisdictions. Or, as another example, it might be where two parties are of different nationalities.

^{5.} See generally Cheshire, North & Fawcett: Private International Law (Paul Torremans et al. eds., 15th ed. 2017); Blurry Boundaries of Public and Private International Law: Towards Convergence or Divergent Still? (Poomintr Sooksripaisarnkit and Dharmita Prasad eds., 2022).

^{6.} In some situations, the "conflicts" rules of the second jurisdiction may refer the court back to its own law, in a process known as "renvoi."

Obviously, this dimension of PIL is most likely to be encountered in the context of litigation in domestic courts. Other PIL issues that may arise in the course of transnational litigation include party autonomy to choose a particular forum for dispute resolution, the rules for cross-border service of process and discovery of evidence, and the enforcement of judgments rendered by foreign courts. Often those who see PIL from this perspective will pay particular attention to the various "international judicial assistance" agreements designed with these issues in mind (such as those involving service of legal process and obtaining evidence abroad, legalization of documents by use of an "apostille," and enforcement of judgments).⁷ Closely related to this dimension are the various agreed mechanisms for international dispute settlement outside of litigation in domestic courts, including international mediation, conciliation and arbitration.

Another way of viewing the field of PIL is to look to the substantive rules that have been developed (regionally and at the international level) in specific areas, to reduce or eliminate the consequences of "conflicts." Examples of efforts to "harmonize" or "unify" the relevant rules can be found in the fields of cross-border commercial transactions, international family law, trans-border bankruptcy and (increasingly) e-commerce, cross-border data transfer and data protection, and privacy.

The field of PIL can also be approached by considering the agendas of the various international institutions dedicated to creating or refining relevant rules and instruments. These include (among others) the Hague Conference on Private International Law ("HCCH"), the UN Commission on International Trade Law ("UNCITRAL"), the International Institute for the Unification of Private Law ("UNIDROIT"), and various components or activities of such regional organizations as the European Union, the Organization of American States, the African Union, and the Asia Pacific Economic Cooperation (APEC). In different areas and in different ways, these organizations work on creating harmonized rules, recommended principles, or model laws in order to facilitate private cross-border activity.

From this brief overview it should be evident that the substance of PIL is expressed in a variety of different legal instruments. It is of course

^{7.} For an overview of the issues arising under these instruments in litigation in domestic courts, see David P. Stewart & David W. Bowker, Ristau's International Judicial Assistance: A Practitioner's Guide to International Civil and Commercial Litigation (2d ed. 2021).

^{8.} Citations to the websites and documents of these organizations are provided *infra* where they are discussed in more detail.

found in domestic legislation. In jurisdictions grounded in the civil law tradition, the rules are most likely to be codified, while in common law systems they are more often a matter of decisional law (that is, expressed as principles applied by courts) although some statutory incorporation is not uncommon. In either case, the first reference for lawyers involved in a cross-border transaction or dispute will be the law of their own jurisdictions to determine whether any mandatory requirements apply. 10

While bilateral agreements between States on private international law issues are not unusual, the number of multilateral PIL treaties and conventions (both regional and global) continues to grow. Some may find it odd that treaties would be involved in articulating rules and procedures applicable to "private" transactions, since (as agreements between States) treaties are, by definition, a matter of *public* international law. As cross-border issues grow in importance, however, regional, and international harmonization of the rules concerning private transactions and dispute settlement makes it easier for individuals and business entities to interact with each other across borders. At the same time, the progressive elaboration of PIL norms today often takes the form of so-called "soft law" norms and principles. 12

For many academics, these disparate efforts and instruments occasion lively debate over the nature and fundamental objectives of PIL. What is the essential purpose of PIL? Is it to promote methodological

^{9.} See, e.g., Bundesgesetz über das Internationale Privatrecht [IPRG] [Private International Law Act] Dec. 18, 1987, BBI 1988 I 5, (amended 2017) (Switz.); Loi du 16 juillet 2004 portant le Code de droit international privé [Law establishing the Code of Private International Law] Jul. 27, 2004, MONITEUR BELGE [M.B.] [OFFICIAL GAZETTE OF BELGIUM], July 27, 2004, 57344, as amended; Milletlerarasi Özel Hukuk ve Usul Hukuku Hakkında Kanun [MÖHUK] [Code on Private International and International Civil Procedure Law] Nov. 27, 2007, Act No. 5718 (Turk.).

^{10.} For this reason, some commentators differentiate between "private international law" (referring to domestic law relevant to the particular cross-border transaction or dispute) and "international private law" (meaning applicable international treaties, principles, and practices). We find the distinction both uninformative and limiting.

^{11.} As Alex Mills observed in The Confluence of Public and Private International Law: Justice, Pluralism and Subsidiarity in the International Constitutional Ordering of Private Law 11 (2009), "private international law is best understood as 'public' in character, and . . . the appropriate perspective for its analysis is systemic." He noted that PIL was historically conceived as a part of an international system of natural law and re-conceptualized over time as autonomous national law, but should today be viewed as "a mutually constitutive international system of secondary norms, serving a public constitutional function." *Id.* at 309.

^{12.} Agreements, declarations and other statements that are not legally binding are sometimes referred to as "soft law." See generally Andrew T. Guzman & Timothy L. Meyer, International Soft Law, 2 J. OF LEGAL ANALYSIS 171 (2010).

clarity to domestic courts, in order to foster predictability in how similar cases are decided in different legal systems? To promote uniform and consistent results in different legal systems or to provide certainty to transacting parties and efficiency for litigants? To ensure fair and objective treatment or "just outcomes" (recognizing that what may be seen as justice in one system might not be seen that way in every system)? To promote communal values, to "unify" the law through harmonization and the eventual standardization of rules on a global basis, to achieve some form of "regulated transnationalism"?¹³ Or to facilitate trade and commerce and thereby advance economic growth and prosperity? It is precisely this diversity of approaches and perspectives that makes the field dynamic.¹⁴

II. WHERE IS PRIVATE INTERNATIONAL LAW DEVELOPED?

In most instances, as noted *supra*, a practitioner's first resort (in looking for the PIL rules or principles applicable to a given issue or transaction) will necessarily be to the relevant domestic law on one's own jurisdiction. Many domestic systems have codified the relevant rules in discrete parts of their domestic laws.¹⁵

^{13. &}quot;The evolution of private international law has always involved the reconciliation of the competing interests of internationalism, consistency and predictability, on the one hand, with those of national sovereignty and comity on the other." Justice Paul Le Gay Brereton, Conclusion, in COMMERCIAL ISSUES IN PRIVATE INTERNATIONAL LAW: A COMMON LAW PERSPECTIVE 326 (Michael Douglas, Vivienne Bath, Mary Keyes & Andrew Dickinson eds., 2019). Some describe the objective in even broader terms: for example, "to remove outdated and parochial obstacles to productive, positive global transnational activity, and to protect weaker parties and vital public interests, including common goods – and so to play its part in building a sustainable future for humanity and for the planet." Hans Van Loon, The Global Horizon of Private International Law, 380 RECUEIL DES COURS 108 (2015).

^{14.} See generally Private International Law: Contemporary Challenges and Continuing Relevance (Franco Fertari & Diego P. Fernández Arroyo eds., 2019); Symeon C. Symeonides, Private International Law: Idealism, Pragmatism, Eclecticism. General Course on Private International Law, 384 Recueil des cours (2016).

^{15.} Many country-specific analyses are available: see, e.g., XIAOHONG LIU, ZHENGYI ZHANG, ET AL., CHINESE PRIVATE INTERNATIONAL LAW (2021); ADRIANA DREYZIN DE KLOR, PRIVATE INTERNATIONAL LAW IN ARGENTINA (2021); KAZUAKI NISJOKA, YUKO NISHITANI, ET AL., JAPANESE PRIVATE INTERNATIONAL LAW (2021); STELLINA JOLLY, SALONI KHANDERIA, ET AL., INDIAN PRIVATE INTERNATIONAL LAW (2021); STEPHANE-LAUREN TEXTIER, DROIT INTERNATIONAL PRIVÉ LEXIFICHE: RÉGLES GÉNÉRALES (2021); CHUKWUMA OKOLI, RICHARD OPPONG, ET AL., PRIVATE INTERNATIONAL LAW IN NIGERIA (2021). See generally A GUIDE TO GLOBAL PRIVATE INTERNATIONAL LAW (Paul Beaumont & Jayne Holliday eds., 2022).

At the same time, it is important to understand that private international law also develops at the regional and global levels, in different fora and locations. One way of introducing the field is briefly to survey the main international bodies that contribute significantly to the development of PIL instruments.

A. The Hague Conference on Private International Law

One central venue for the development of private international law is the Hague Conference on Private International Law ("HCCH"). While its activities date back to 1893, in 1955 it became a permanent intergovernmental organization. Its mandate, as expressed in Article 1 of its Statute, is "to work for the progressive unification of the rules of private international law." Its reach is increasingly global. The current HCCH membership includes 90 States and one "regional economic integration organization" (the European Union as an entity separate from its members); in addition, 65 non-member States are either signatories or contracting parties to at least one Hague convention. ¹⁷

The Permanent Bureau is the main driver of the Conference's day-to-day activities. Its primary function is to organize and run plenary sessions, which occur every four years. Permanent Bureau staff perform research relevant to Conference activities, provide advice and training, and maintain contacts with experts, various organs within member States, and other international organizations.

While formal instruments such as conventions are drafted and adopted by States, the Permanent Bureau convokes and supports the negotiation of such instruments. All HCCH conventions are designed with the aim of achieving what the organization sees as its ultimate goal: "a world in which, despite the differences between legal systems, persons – individuals as well as companies – can enjoy a high degree of legal security." ¹⁸

^{16.} Statute of the HCCH art. 1, Oct. 31, 1951, 220 U.N.T.S. 121; see generally A COMMITMENT TO PRIV. INT'L LAW (Permanent Bureau of the HCCH eds., 2013).

^{17.} At the time of writing, El Salvador was the latest country to become a member of the HCCH, doing so on March 2, 2022. For the current list of parties, see *Status Table – Statute of the Hague Conference on Private International Law*, HCCH, available at https://www.hcch.net/en/instruments/conventions/status-table/?cid=29 (last visited Apr. 11, 2022). For the list of non-States Parties that have signed or ratified one of the HCCH's conventions, see *Other Connected Parties*, HCCH, available at https://www.hcch.net/en/states/other-connected-parties (last visited Apr. 11, 2022).

^{18.} See About HCCH, HCCH, available at https://www.hcch.net/en/about (last visited Apr. 10, 2022).

Between 1951 and 2008, the Conference adopted 38 treaties; since then, two more have been added. The most-widely ratified Hague conventions involve legalization of foreign public documents through the use of "apostilles," the rules and methods for cross-border service of legal process, and the mechanisms for obtaining evidence from abroad. Most recently, the Conference adopted a Convention on the Recognition and Enforcement of Foreign Judgments in Civil and Commercial Matters. Other important Hague instruments concern access to justice, international child abduction, intercountry adoption, conflicts of laws relating to the form of testamentary dispositions, enforcement of maintenance obligations, and reciprocal recognition of divorces. ²³

The HCCH is also working, inter alia, on instruments concerning the protection of international tourists and visitors, the cross-border recognition and enforcement of agreements in family matters involving children, the legal parentage of children and surrogacy, and the recognition and enforcement of foreign civil protection orders. Of particular relevance to the international litigating community is the recently undertaken project on the jurisdiction of domestic courts in transnational civil or commercial disputes.²⁴

^{19.} See Convention Abolishing the Requirement of Legalisation for Foreign Public Documents, Oct. 5, 1961, 33 U.S.T. 883, 527 U.N.T.S. 189 [hereinafter "Apostille Convention"].

^{20.} See Convention on the Service Abroad of Judicial and Extrajudicial Documents in Civil or Commercial Matters, Nov. 15, 1965, 20 U.S.T. 361, 658 U.N.T.S. 163 [hereinafter "Hague Service Convention"].

^{21.} See Convention on the Taking of Evidence Abroad in Civil or Commercial Matters, Mar. 18, 1970, 23 U.S.T. 2555, 847 U.N.T.S. 231 [hereinafter "Hague Evidence Convention"].

^{22.} See Convention on the Recognition and Enforcement of Foreign Judgments in Civil or Commercial Matters, HCCH, available at https://www.hcch.net/en/instruments/conventions/full-text/?cid=137 (last visited Apr. 10, 2022) (not yet entered into force) [hereinafter "Hague Judgments Convention"].

^{23.} Typically, the entry in force of a convention is subject to a minimum number of parties; as a result, it is not unusual for conventions to enter into force some years after negotiations have been completed and the text agreed. See generally HCCH Conventions: Signatures, Ratifications, Approvals and Accessions, HCCH, available at https://assets.hcch.net/docs/ccf77ba4-af95-4e9c-84a3-e94dc8a3c4ec.pdf (last visited Apr. 10, 2022).

^{24.} See Jurisdiction Project, HCCH, available at https://www.hcch.net/en/projects/legislative-projects/jurisdiction-project (last visited Apr. 10, 2022). Cf. MILANA KARAYANIDI & PAUL BEAUMONT, RETHINKING JUDICIAL JURISDICTION IN PRIVATE INTERNATIONAL LAW: PARTY AUTONOMY, CATEGORICAL EQUALITY AND SOVEREIGNTY (2021).

B. The United Nations Commission on International Trade Law

The UN General Assembly ("UNGA") established the UN Commission on International Trade Law ("UNCITRAL") in 1966 for "the promotion of the progressive harmonization and unification of the law of international trade." Since then, UNCITRAL has served as the care legal body within the United Nations in the field (broadly conceived). Half of its members are elected by the General Assembly every three years. At its seventy-sixth session, in December 2021, UNGA voted to increase UNCITRAL's membership from sixty to seventy countries; five of the new members were elected at that session, and the remaining five will be elected during UNGA's seventy-ninth session in 2025. 26

UNCITRAL's main activity is to prepare (and promote the adoption and use of) legislative and non-legislative instruments related to key parts of commercial law. Its substantive focus has largely been on dispute resolution, international contract practices, transport, insolvency, ecommerce, international payments, secured transactions, procurement, and the sale of goods. While over time it has developed other instruments (such as model laws and legislative guides), some of its most important PIL instruments have been multilateral conventions in areas where a high degree of harmonization is required. Two widely adopted examples are the 1958 UN Convention on the Recognition and Enforcement of Foreign Arbitral Awards (the "New York Convention")²⁷ and the 1980 UN Convention on the International Sale of Goods ("CISG").²⁸

The main areas of UNCITRAL's current focus are Micro, Small, and Medium Enterprises (Working Group I); Arbitration and Conciliation/Dispute Settlement (Working Group II); Investor-State Dispute Settlement Reform (Working Group III); Electronic Commerce (Working Group IV); and Insolvency Law (Working Group V).²⁹ Working Group VI's work on the Judicial Sale of Ships concluded in

^{25.} G.A. Res. 2205 (XXI), at art. I (Dec. 17, 1966). See generally UNICITRAL, available at www.uncitral.org (last visited May 25, 2021).

^{26.} G.A. Res. 76/109 (Dec. 9, 2021). The ten new memberships are equally distributed among world regions: two each from African States, Asia-Pacific States, Eastern European States, Latin American and Caribbean States, and Western European and Other States.

^{27.} Convention on the Recognition and Enforcement of Foreign Arbitral Awards, Jun. 10, 1958, 21 U.S.T. 2517, 330 U.N.T.S. 3 [hereinafter "New York Convention"].

^{28.} UN Convention on Contracts for the International Sale of Goods, Apr. 11, 1980, 1489 U.N.T.S. 3 [hereinafter "CISG"].

^{29.} Working Groups, UNCITRAL, available at https://uncitral.un.org/en/working groups (last visited Aug. 4, 2022).

February 2022, when it submitted a revised Draft Convention on the Judicial Sale of Ships to the UNCITRAL membership for consideration;³⁰ in November 2022, it will turn its attention to negotiable multimodal transport documents.³¹

At UNCITRAL's fifty-fifth session, which ended in July 2022, the body approved the Draft Convention on the Judicial Sale of Ships, sending the document to UNGA for consideration and recommending its adoption.³² At the same session, UNCITRAL also adopted Working Group IV's Model Law on the Use and Cross-border Recognition of Identity Management and Trust Services.³³

In addition to its working groups and their activities, UNCITRAL also maintains the "Case Law on UNCITRAL Texts" ("CLOUT") system, which offers a database of relevant court decisions and arbitral awards from around the world.³⁴ The goal is to help a court in any given jurisdiction arrive at a uniform interpretation of an UNCITRAL instrument; if courts in different jurisdictions were to decide similar cases differently, the outcome would be less certainty for private parties. Most of the cases reported in CLOUT are related to the Convention on the International Sale of Goods and the Model Law on International Commercial Arbitration.

C. The International Institute for the Unification of Private Law

The International Institute for the Unification of Private Law ("UNIDROIT"), headquartered in Rome, is an independent intergovernmental institution devoted to studying the needs and methods for modernizing, harmonizing, and coordinating private law – particularly commercial law. Founded in 1926 as an auxiliary organ of

^{30.} See U.N. Comm'n. On Int'l Trade L., Report of Working Group VI (Judicial Sale of Ships) on the work of its fortieth session (New York, 7–11 February 2022), ¶ 10, U.N. Doc A/CN.9/1095 (Feb. 12, 2022); U.N. Comm'n. On Int'l Trade L., Draft convention on the international effects of judicial sales of ships, U.N. Doc A/CN.9/1108 (Mar. 4, 2022).

^{31.} See Working Groups, supra note 29.

^{32.} Press Release, U.N. Comm'n. On Int'l Trade L., UN Commission on International Trade Law concludes 55th Session in New York, U.N. Press Release UNIS/L/333 (July 20, 2022).

^{33.} See id. See also U.N. Comm'n. On Int'l Trade L., Report of Working Group IV (Electronic Commerce) on the work of its sixty-second session (Vienna, 22–26 November 2021), U.N. Doc A/CN.9/1087 (Dec. 23, 2021); U.N. Comm'n. On Int'l Trade L., Draft Model Law on the Use and Cross-border Recognition of Identity Management and Trust Services, U.N. Doc A/CN.9/1112 (Feb. 21, 2022).

^{34.} Case Law on UNCITRAL Texts (CLOUT), UNCITRAL, available at https://uncitral.un.org/en/case_law_(last visited Apr. 10, 2022).

the League of Nations, it was re-established in 1940 through a multilateral agreement (i.e. the UNIDROIT Statute), to which sixty-three States are currently party.³⁵

Over the years, UNIDROIT has produced more than seventy studies and drafts, many of which have resulted in the adoption of conventions. model laws, principles, and legal and contractual guides on a range of subjects, including agency, capital markets, civil procedure, commercial contracts, contract farming, cultural property, factoring, franchising, international sales, international wills, leasing, reinsurance, secured transactions, and transport. Among its best known instruments are the Principles on International Commercial Contacts (2016), the Cape Town Convention on International Interests in Mobile Equipment (2001) (with separate protocols pertaining to aircraft equipment, rail equipment, space equipment, and mining, agricultural and construction equipment), the Convention on International Financial Leasing (1988), and the Convention Providing a Uniform Law on the Form of an International Will (1973).³⁶ In addition, UNIDROIT maintains one of the leading documentation centers on private law, holding more than 260,000 volumes from a wide array of countries.³⁷

D. Regional Organizations

Regional entities have long played important roles in the development of PIL. In recent decades, the European Union ("EU") has adopted community-wide codifications of law on a variety of private law topics, including contracts, torts, family law, and insolvency as well as jurisdiction, choice of law, and judgments.³⁸ Because it is committed to

^{35.} UNIDROIT Statute Incorporating the Amendment to Article 6(1) Which Entered into Force on 26 March 1993, available at https://www.unidroit.org/english/presentation/statute.pdf (last visited Apr. 08, 2022) [hereinafter "UNIDROIT Statute"].

^{36.} See Instruments, UNIDROIT, available at https://www.unidroit.org/instruments (last visited May 25, 2022).

^{37.} See Library, UNIDROIT, available at https://www.unidroit.org/library (last visited May 25, 2022).

^{38.} See generally MICHAEL BOGDAN & MARTA PERTEGÁS SENDER, CONCISE INTRODUCTION OF EU PRIVATE INTERNATIONAL LAW (4th ed. 2019); FELIX WILKE, A CONCEPTUAL ANALYSIS OF EUROPEAN PRIVATE INTERNATIONAL LAW (2019); HOW EUROPEAN IS EUROPEAN PRIVATE INTERNATIONAL LAW? (Jan von Hein, Eva-Maria Keininger & Giesela Rühl eds., 2019). See also International Law, European E-Justice Portal, available at https://e-justice.europa.eu/content_international_law-10-en.do (last visited Apr. 8, 2022). See also EUPILLAR (European Union Private International Law: Legal Application in Reality), UNIV. OF ABERDEEN, available at https://www.abdn.ac.uk/law/research/eupillar/.ph (last visited Apr. 8, 2022).

achieving "freedom, security and justice without internal borders," the EU can enact binding rules that apply directly to member States (and their citizens) in their relations with each other. In practice, those rules also have considerable influence over activities and transactions affecting private parties outside the EU. The corpus (and influence) of EU private law instruments and initiatives is extensive and is often addressed as a separate course in European law schools.

Another important (but sometimes less widely appreciated) regional contributor to the development of private international law is the Organization of American States ("OAS").³⁹ While not aimed at the economic or political integration of its member States in the same way as the EU is, the OAS has nonetheless adopted many important PIL instruments over time, with the aim of standardizing rules in order to facilitate trade and promote dispute resolution within the hemisphere, beginning with the Bustamante Code in 1928.⁴⁰ More recently, it promulgated the 1979 Inter-American Convention on General Rules of Private International Law, the 1975 Inter-American Convention on International Commercial Arbitration, and the 1994 Convention on the Law Applicable to International Contracts.⁴¹

The OAS has also adopted several important non-binding instruments related to private international law. Two recent examples are (i) the Principles for Electronic Warehouse Receipts for Agricultural Products, intended to highlight the importance of pursuing legislative reform as a means of promoting economic development in the agricultural sector, with an eye to the possible elaboration of model legislation, ⁴² and (ii) the Model Law on the Simplified Corporation, aimed at encouraging States to enact legislation permitting an alternative to complicated formal requirements for incorporation, thereby fostering

^{39.} See generally Department of International Law: Private International Law, Organization of American States [O.A.S.], available at http://www.oas.org/en/sla/dil/private_international_law.asp (last visited Apr. 9, 2022).

^{40.} Convention on Private International Law, Feb. 20, 1928, O.A.S.T.S. No. 23 available at http://www.oas.org/en/sla/dil/docs/inter_american_treaties_A-31_Bustamente_Code.pdf (last visited May 25, 2022).

^{41.} See Inter-American Convention on General Rules of Private International Law, May 8, 1979, O.A.S.T.S. No. 54; Inter-American Convention on the Law Applicable to International Contracts, Mar. 17, 1994, O.A.S.T.S. No. 78; Inter-American Convention on International Commercial Arbitration, Jan. 30, 1975, O.A.S.T.S. No. 42. All three are available at www.oas.org/en/topics/treaties_agreements.asp (last visited Apr. 9, 2022).

^{42.} Inter-American Juridical Report: Electronic Warehouse Receipts for Agricultural Products, CJI/doc. 505/16 rev. 2 (Sep. 27, 2016); *cf.* O.A.S. Gen. Ass. Res. on International Law, AG/RES, 2926 (XLVIII-O/18) (Jun. 5, 2018).

competitiveness and stimulating economic development.⁴³ In 2019, the OAS adopted a Guide on the Law Applicable to International Commercial Contracts in the Americas.⁴⁴

In Africa, several regional bodies deal with private international law, either exclusively or as part of their broader mandates. The Organization for the Harmonization of African Business Law in Africa ("OHADA") works to "harmonize business law in Africa in order to guarantee legal and judicial security for investors and companies in its member States." In 2015, OHADA created a Common Court of Justice and Arbitration ("CCJA"), based in Abidjan, Côte d'Ivoire, with three functions: judicial, advisory, and arbitration. Other African entities address private international law in more limited ways. For example, the Southern African Development Community ("SADC") created a model Bilateral Investment Treaty in 2012. Although it is non-binding and aimed primarily at adoption by States, this treaty can serve to help resolve disputes over the rights and obligations of private international investors. The Common Market for Eastern and Southern Africa ("COMESA") Treaty also includes provisions on private investment.

The Asia-Pacific Economic Cooperation ("APEC") – a group of 21 member states formed in 1989 with the primary goal of promoting free trade and sustainable development in the Pacific Rim economies – has been active in a number of PIL areas, including cross-border privacy

^{43.} See O.A.S. Department of International Law, Model Law on the Simplified Corporation: Status of Reforms in the Region, OEA/Sec. Gnl DDI/doc. 3/21 rev. 1 (June 14, 2021), available at <a href="http://www.oas.org/en/sla/dil/docs/publication_Model_Law_on_the_Simplified_Corporation_Nodel_Law_on_the_Simplified_Law_on_the_Simplified_Nodel_Law_on_the_Simplified_Nodel_Law_on_the_Simplified_Nodel_Law_on_the_Simplified_Nodel_Law_on_the_Simplified_Nodel_Law_on_the_Simplified_Nodel_Law_on_the_Simplified_Nodel_Law_on_the_Simplified_Nodel_Law_on_the_Simplified_Nodel_Law_on_the_Simplified_Nodel_Law_on_the_Simpl

^{44.} Guide on the Law Applicable to International Commercial Contracts in the Americas, O.A.S. (2019), available at http://www.oas.org/en/sla/dil/publications_Guide_Law_Applicable_International_Commerc ial Contracts Americas 2019.asp (last visited Apr. 9, 2022).

^{45.} L'Organisation pour l'Harmonisation en Afrique du Droit des Affaires [hereinafter "OHADA"]. See General Overview, OHADA, available at https://www.ohada.org/index.php/en/ohada-in-a-nutshell/general-overview_(last visited Apr. 9, 2022).

^{46.} See CCJA at a Glance, OHADA, available at https://www.ohada.org/en/ccja-at-a-glance/ (last visited Apr. 9, 2022). Reports of CCJA cases are available at http://biblio.ohada.org/pmb/opac_css/index.php (last visited Apr. 9, 2022) (in French only).

^{47.} See SADC Model Bilateral Investment Treaty Template with Commentary, INT'L INST. FOR SUSTAINABLE DEVELOPMENT (Jul. 2012), available at https://www.iisd.org/itn/wpcontent/uploads/2012/10/sadc-model-bit-template-final.pdf (last visited Apr. 9, 2022).

^{48.} See Treaty Establishing the Common Market for Eastern and Southern Africa, art. 158, Nov. 5, 1993, available at https://www.comesa.int/wp-content/uploads/2020/07/Comesa-Treaty.pdf.

issues, investment law, and on-line dispute resolution.⁴⁹ In East and Southeast Asia, scholars from 10 different countries recently created the Asian Principles of Private International Law ("APPIL"), a project aimed at harmonizing the region's PIL rules and principles.⁵⁰ Although APPIL activities remain "soft law" – nothing APPIL creates is binding on any State – its activities and instruments are persuasive and may function as models for various domestic jurisdictions.⁵¹

E. Other Contributors

Non-governmental organizations also contribute significantly to the articulation and development of PIL. For example, the International Chamber of Commerce ("ICC") characterizes itself as "the World Business Organization" and "the institutional representative of more than 45 million companies in over 100 countries." Its mission is to promote trade and investment as vehicles for inclusive growth and prosperity. The ICC has had broad influence in a variety of areas, thanks in part to its rules for the Uniform Customs and Practice for Documentary Credits ("UCP 600"), standard terms for international commercial transactions ("Incoterms"), and rules for curtailing corruption. It is perhaps best known for establishing the International Court of Arbitration in 1923; ICC arbitration remains one of the methods most frequently chosen by parties to international commercial transactions for resolving their disputes outside of national courts.

^{49.} See generally About APEC, ASIA-PACIFIC ECONOMIC COOPERATION, available at https://www.apec.org/About-Us/About-APEC (last visited Apr. 11, 2022).

^{50.} See generally Weizuo Chen and Gerald Goldstein, The Asian Principles of Private International Law: objectives, contents, structure, and selected topics on choice of law, 13 J. OF PRIV. INT'L L. 411 (2017); Uematsu Mao, APPIL (Asian Principles of Private International Law) and its Perspective Regarding International Jurisdiction, 37 RITSUMEIKAN L. REV. 35 (2019); CONVERGENCE AND DIVERGENCE OF PRIVATE LAW IN ASIA (Gary Low ed., 2022).

^{51.} Chen & Goldstein, supra note 50, at 433.

^{52.} See generally THE INTERNATIONAL CHAMBER OF COMMERCE, available at www.iccwbo.org (last visited Apr. 11, 2022). The International Chamber of Commerce is not to be confused with the other major international legal organization with the same acronym, the International Criminal Court.

^{53.} See generally id. The most recent version of the UCP (UCP 600) was published in 2007, of INCOTERMS in 2020, and of the anti-corruption rules in 2011.

^{54.} The ICC Rules of Arbitration were revised in 2021. See generally Dispute Resolution Services, INT'L CHAMBER OF COM., available at https://iccwbo.org/dispute-resolution-services (last visited Apr. 11, 2022); The American Arbitration Association's International Centre for Dispute Resolution similarly supports international commercial arbitrations. See generally INT'L CENTER FOR DISP. RESOL., available at www.icdr.org (last visited Apr. 11, 2022).

In many countries, private associations also play an active role in the PIL field broadly conceived. In the United States, for instance, they include the American Law Institute, the American Bar Association's Section of International Law, and the American Society of International Law. The Uniform Law Commission ("ULC") provides a forum in which practitioners, academics, and judges (acting as "commissioners") collaborate to develop uniform acts (model laws) for adoption at the state (rather than federal) level, such as the Uniform Commercial Code. One point of coordination and dialogue from the U.S. perspective is provided by the Secretary of State's Advisory Committee on Private International Law ("ACPIL").

III. CONFLICTS OF LAW, CHOICE OF FORUM, AND DISPUTE SETTLEMENT MECHANISMS

The foregoing survey illustrates the central role of conflicts of law issues in the field of private international law. The paradigmatic context is a commercial transaction between private parties where at least one of the parties is a "foreigner" and/or the transaction in question has some cross-border dimension, and litigation arising from the transaction has been filed in a domestic (national) court.⁵⁷ As long as the world community continues to consist primarily of independent (territorial) States with separate and differing systems of domestic law, methods will be needed for resolving the question of which rules and principles apply to disputes arising from events and transactions that occur in, or have a significant relationship to, more than one State.⁵⁸

^{55.} See generally UNIFORM LAW COMM., available at www.uniformlaws.org (last visited Apr. 11, 2022). Among the ULC's PIL-related accomplishments are the Uniform Electronic Transactions Act, the Uniform Interstate Family Support Act, the Uniform Child Custody Jurisdiction and Enforcement Act, and the Uniform Foreign-Country Money Judgments Recognition Act.

^{56.} See generally General Resources – Private International Law, U.S. DEP'T OF STATE, available at www.state.gov/general-resources-private-international-law (last visited Apr. 11, 2022).

^{57.} See generally Trevor C. Hartley, International Commercial Litigation: Text, Cases and Materials on Private International Law (3d ed. 2020); Geert van Calster, European Private International Law: Commercial Litigation in the EU (3d ed. 2021).

^{58.} Cf. RESTATEMENT (SECOND) OF CONFLICT OF LAW § 1 (AM. LAW INST. 1971). The ALI is currently considering a revision (to become the RESTATEMENT (THIRD) OF CONFLICT OF LAW). See Restatement of the Law Third,

Conflict of Laws, Am. L. INST., available at https://ali.org/projects/show/conflict-laws/ (last visited June 6, 2022).

Of course, that "conflicts" question has both substantive and procedural dimensions. It arises when different legal systems (i) provide different substantive rules for deciding those questions and (ii) have different jurisdictional and/or procedural rules about where and how the disputes can be resolved. Accordingly, the issues might be resolved in different ways.

(a) One possible solution lies in the direction of harmonizing the *conflicts* rules. If different national courts look to the same "applicable law" rules in determining which law applies to similar transactions, then it should matter less where a given dispute is actually heard and decided. The parties in question will have a clear (or, at least, clearer) idea of the substantive rules under which their dispute is likely to be resolved.

Adopting standardized conflicts of law rules in specific areas of interaction lies at the heart of many PIL projects. Within the EU, for instance, harmonized conflict-of-law rules for both contractual and non-contractual obligations are provided in the Rome I and II Regulations.⁵⁹ In the OAS, the effort is reflected in the Mexico City Convention.⁶⁰ However, the undertaking has proven quite difficult in light of significant differences in national law, tradition, and culture.⁶¹ It has accordingly motivated adoption of various "soft law" instruments, such as the 2015 Hague Principles on Choice of Law in International Commercial Contracts,⁶² and the OAS Guide on the Law Applicable to International Commercial Contracts in the Americas.⁶³

(b) Another possible solution is to harmonize the *substantive* law relating to a particular area or issue. Where the relevant rules in the concerned jurisdictions are the same – that is, where similar statutes have been adopted by their legislatures or if all the jurisdictions in question have agreed by treaty to apply the same substantive rules – the "conflicts" problems can be minimized if not eliminated. In theory, resolution of the

^{59.} Regulation (EC) No 593/2008 of the European Parliament and of the Council of 17 June 2008 on the law applicable to contractual obligations, 2008 O.J. (L177) 6 (EC) [hereinafter "Rome I"]; Regulation (EC) No 864/2007 of the European Parliament and of the Council of 11 July 2007 on the law applicable to non-contractual obligations (Rome II), 2007 O.J. (L 199) 40 (EC) [hereinafter "Rome II"].

^{60.} Inter-American Convention on the Law Applicable to International Contracts, Mar. 17, 1994, O.A.S.T.S. No. 78.

^{61.} See generally Symbon Symbonides, Codifying Choice of Law Around the World: An International Comparative Analysis (2014).

^{62.} Principles on Choice of Law in International Commercial Contracts, HCCH (Mar. 19, 2015), available at https://www.hcch.net/en/instruments/conventions/full-text/?cid=135 (last visited Apr. 11, 2022).

^{63.} See Guide on the Law Applicable to International Commercial Contracts in the Americas, supra note 44.

parties' disagreement should be the same no matter which jurisdiction addresses it. This approach underlies the private international law efforts in such integrative contexts as the European Union. It is also reflected at the global level in several specific areas discussed in Parts V and VI of this paper, including cross-border commercial transactions, transnational issues in family law, and transportation of goods internationally.

- (c) A different approach permits the parties to a given transaction to agree, between themselves, on the specific law or laws they want to apply to their transaction – in effect, to "privatize" the issue. This contractual choice of law approach is frequently characterized as founded on concepts of "freedom of contract" or "party autonomy." permitted, the courts in different countries will give effect to the parties' clearly expressed agreement on the governing law – unless it violates some fundamental norm of applicable domestic law, generally characterized as a matter of "public policy" (ordre public) or "mandatory norms" (lois de police), meaning that no derogation is permitted. (However, the meanings given to those terms, and the methods used to apply them, often differ from one country to another.) The point is that by clear agreement the parties have a reliable understanding about the law under which their dispute will be resolved, regardless of the forum.⁶⁴ Not all systems recognize the validity of such agreements to the same extent, however.
- (d) Still another approach permits contracting parties to agree on a particular domestic court where their dispute will be resolved, to the exclusion of other available fora. Such contractual *choice of court* or *forum selection* clauses typically provide that disagreements arising under the contract must be submitted to a *specified domestic court* (such clauses may also specify the law to be applied by that court). The choice could be the domestic courts of one (or the other) of the parties to the contract (or dispute), or those of a third country. Whether the chosen court will be able to accept the dispute, however, is a question of the national law defining that court's jurisdiction, and that law typically cannot be overridden simply by the agreement of private parties. The 2005 Hague Convention on Choice of Court Agreements represents an effort to oblige the chosen domestic courts to respect the parties' choice (to the exclusion of other courts) and to give effect to the resulting judgments.⁶⁵

^{64.} See generally Choice of Law in International Commercial Contracts (Daniel Girsberger, Thomas Kadner Graziano & Jan L. Neels eds., 2021).

^{65.} Hague Convention on Choice of Court Agreements, June 30, 2005, available at https://www.hcch.net/en/instruments/conventions/full-text/?cid=98 (last visited Mar. 20,

- (e) With the emergence of a variety of *international commercial courts*, the possibility now exists for contracting parties to agree to "internationalize" their dispute settlement mechanisms in even more ways. 66 Many of these courts are specialized bodies (or chambers) within domestic legal systems, while others are independent, but all seek to attract commercial disputes that would otherwise be submitted to domestic litigation or international commercial arbitration. 67
- (f) Alternatively, parties to international transactions may decide to preclude litigation altogether by agreeing that disputes under their contract must be submitted to *international commercial arbitration*. It is possible for them to agree to create their own free-standing or *ad hoc* tribunal, and for that purpose UNCITRAL has adopted a "comprehensive set of procedural rules upon which parties may agree for the conduct of arbitral proceedings arising out of their commercial relationship." However, it is far more common today for contracting parties to choose "institutional" or "administered" arbitration, where an existing entity such as the International Chamber of Commerce, 69 the Permanent Court

^{2022);} see generally Ronald A. Brand & Paul Herrup, The 2005 Hague Convention on Choice of Court Agreements: Commentary and Documents (2008).

^{66.} See, e.g., the Singapore International Commercial Court ("SICC") and the China International Commercial Courts ("CICC"). For an overview, see Pamela Bookman, The Adjudication Business, 45 YALE J. INT'L L. 227 (2020). See also Diego P. Fernández Arroyo & Makane Moïse Mbengue, Public and Private International Law in International Courts and Tribunals: Evidence of An Inescapable Interaction, 56 COLUM. J. TRANSNAT'L L. 797 (2018).

^{67.} One organization working to advance the work of commercial courts is the Standing International Forum of Commercial Courts ("SIFoCC"). Formed in 2017, SIFoCC member courts share best practices, "work together to keep pace with rapid commercial change," "make a stronger contribution to the rule of law than they can separately," and help countries to "enhance their attractiveness to investors by offering effective means for resolving commercial disputes." See generally Standing International Forum of Commercial Courts, available at https://sifocc.org (last visited Aug. 5, 2022); see also Global Private International Law: Adjudication Without Frontiers, (Horatia Muir Watt, Lucia Bíziková, Agatha Brandão de Oliveira & Diego P. Fernández Arroyo eds., 2019).

^{68.} See UNCITRAL Arbitration Rules, UNCITRAL, available at https://uncitral.un.org/en/texts/arbitration/contractualtexts/arbitration (last visited Mar. 20, 2022).

^{69.} See 2021 Arbitration Rules, INT'L CHAMBER OF COM., available at https://iccwbo.org/dispute-resolution-services/arbitration/rules-of-arbitration/ (last visited Mar. 20, 2022).

of Arbitration,⁷⁰ or the London Court of International Arbitration⁷¹ provides not only the rules but also administrative support and assistance for the arbitration. Some entities (such as the Stockholm Chamber of Commerce or the Singapore International Arbitration Centre) specialize on a regional basis.⁷²

The attraction of international commercial arbitration has been strengthened by the widespread adherence of States to international agreements requiring their courts to give effect to such choices, inter alia by precluding domestic suits on the same issues and enforcing the resulting arbitral awards. Among these are the New York Convention⁷³ and the Inter-American Convention on International Commercial Arbitration ("Panama Convention").⁷⁴

(g) Where the issues arise out of contracts not between private parties but between States and foreign investors, they may be eligible for arbitration according to the provisions of specialized bilateral investment treaties ("BITs")⁷⁵ or under the rules of the International Center for the Settlement of Investment Disputes ("ICSID").⁷⁶

^{70.} See About Us, PERMANENT COURT OF ARBITRATION, available at https://pcacpa.org/en/about/_(last visited Mar. 20, 2022); see also Arbitration, PERMANENT COURT OF ARBITRATION, available at https://pca-cpa.org/en/services/arbitration-services/ (last visited Mar. 20, 2022).

^{71.} General information about the LCIA is available at www.lcia.org (last visited Mar. 20, 2022).

^{72.} General information about the Stockholm Chamber of Commerce Arbitration Institute is available at https://sccinstitute.com (last visited Mar. 20, 2022); information about the Singapore International Arbitration Centre ("SIAC") is available at www.siac.org.sg (last visited Mar. 20, 2022); information about the China International Economic and Trade Arbitration Commission ("CIETAC") is available at www.cietac.org (last visited Mar. 20, 2022).

^{73.} New York Convention, *supra* note 27. It is implemented in U.S. law by Chapter 2 of the Federal Arbitration Act, 9 U.S.C. §§ 201-208.

^{74.} Inter-American Convention on International Commercial Arbitration, Jan. 30, 1975, 1438 U.N.T.S. 245 [hereinafter "Panama Convention"]. It is implemented in U.S. law by 9 U.S.C. §§ 301-307). See generally GEORGE A. BERMANN, INTERNATIONAL ARBITRATION AND PRIVATE INTERNATIONAL LAW (2017).

^{75.} Many countries have negotiated BITs providing for the settlement of disputes between their investors and host States. See, e.g., Database of Bilateral Investment Treaties, ICSID, https://icsid.worldbank.org/resources/databases/bilateral-investment-treaties (last visited Mar. 20, 2022).

^{76.} ICSID arbitration is governed by the Convention on the Settlement of Investment Disputes between States and Nationals of Other States (the "Washington Convention") and specialized rules and regulations. See International Center for Settlement of Investment Disputes, ICSID Convention, Regulations and Rules (Apr. 2006) available at https://icsid.worldbank.org/sites/default/files/ICSID%20Convention%20English.pdf; see also generally ICSID, available at https://icsid.worldbank.org (last visited Mar. 20, 2022).

- (h) As an alternative to arbitration, *international mediation* of commercial disputes appears to be gaining in popularity, particularly with the adoption of the 2018 UN Convention on International Settlement Agreements Resulting from Mediation ("Singapore Convention"), 77 which provides a legal framework for recognizing and enforcing international mediation agreements. Other relevant instruments include the EU Directive on Mediation⁷⁸ and UNCITRAL's 2018 Model Law on International Commercial Mediation.⁷⁹
- (i) Still another alternative is offered by recent developments in online dispute resolution ("ODR"), which may be especially useful for disputes arising out of cross-border, low-value e-commerce transactions. UNCITRAL's Technical Notes on Online Dispute Resolution describe the stages of an ODR proceeding, discussing such aspects as the appointment, powers, and functions of the neutral ODR administrator. The aim is to "foster the development of ODR and to assist ODR administrators, ODR platforms, neutrals, and the parties to ODR proceedings." The EU has also established an ODR platform intended to "make online shopping safer and fairer through access to quality dispute resolution tools."

^{77.} U.N. Convention on International Settlement Agreements Resulting from Mediation, Dec. 20, 2018, available at https://treaties.un.org/Pages/showDetails.aspx?objid=080000028054826c&clang=_en (last visited June 6, 2022) [hereinafter "Singapore Convention on Mediation"]. See Timothy Schnabel, Implementation of the Singapore Convention: Federalism, Self-Execution, and Private International Law Treaties, 30 AM. REV. INT'L ARB. 265 (2019).

^{78.} Directive 2008/52/EC of the European Parliament and of the Council of 21 May 2008 on certain aspects of mediation in civil and commercial matters, 2008 O.J. (L 136) 3.

^{79.} The Model Law is available at https://uncitral.un.org/en/texts/mediation/modellaw/commercial_conciliation (last visited May 25, 2022).

^{80.} UNCITRAL, TECHNICAL NOTES ON ONLINE DISPUTE RESOLUTION 1 (2017) available at https://uncitral.un.org/sites/uncitral.un.org/files/media-documents/uncitral/en/v1700382_english_technical_notes_on_odr.pdf (last visited May 25, 2022); see generally Online Dispute Resolution, UNCITRAL, available at https://uncitral.un.org/en/texts/onlinedispute (last visited Mar. 20, 2022).

^{81.} Regulation No. 524/2013 of the European Parliament and of the Council of 21 May 2013 on online dispute resolution for consumer disputes and amending Regulation (EC) No 2006/2004 and Directive 2009/22/EC (Regulation on consumer ODR), 2013 O.J. (L 165) 1 (EU). See Online Dispute Resolution – about the ODR platform, EUR. COMM'N, available at https://ec.europa.eu/consumers/odr/main/?event=main.home.howitworks (last visited Mar. 20, 2022).

IV. INTERNATIONAL JUDICIAL ASSISTANCE

Returning to the option of litigation in domestic courts, a main objective of the PIL effort has long been to reduce (if not eliminate) some of the procedural obstacles that parties may encounter when their dispute has transnational dimensions.⁸² Here, we focus in particular on a set of conventions adopted by the Hague Conference in an effort to resolve such practical problems.

A. Service

Different legal systems have different standards, and rely on different methods, in their requirements for notifying a litigant's opposing party of the various stages and developments in the course of a domestic litigation – starting with notice that the proceeding has begun. The differences can be consequential. For example, U.S. students and practitioners are often surprised to learn that, in many foreign legal systems, "service of process" can only be made by a government official, not by a private party, even though it does not typically have the same fundamental role in "energizing" the court's jurisdiction over the parties and proceeding as in U.S. law. Nonetheless, failure to observe the applicable law and procedures of the foreign jurisdiction may well have significant adverse consequences for the proceeding and potential enforcement of any resulting judgment.

To help bridge these differences, the 1965 Hague Service Convention⁸³ creates an international framework for serving process outside of a home State. It applies "in all cases, in civil or commercial matters, where there is occasion to transmit a judicial or extrajudicial document for service abroad"⁸⁴ subject to some exceptions. As a matter of U.S. law, when the Service Convention does apply, it is both mandatory and exclusive; that is, service must be made through the channels it authorizes.⁸⁵

^{82.} See generally Ronald A. Brand, Private Law and Public Regulation in U.S. Courts, in CILE Studies in Private Law, Private International Law, and Judicial Cooperation in the EU-US Relationship 115 (2005).

^{83.} Hague Service Convention, supra note 20.

^{84.} Id. at art. 1.

^{85.} Société Nationale Industrielle Aerospatiale v. U.S. Dist. Court for Southern Dist. of Iowa, 482 U.S. 522 (1987). The Convention does not apply, however, where the address of the person being served is not known or where service does not cross borders, or in criminal, penal or administrative matters.

The "main channel" involves transmission through a "Central Authority" established by States Party (typically a government ministry), although States are permitted to authorize alternative authorities, including diplomatic or consular missions, judicial officers, the postal service, or any other method to which the two Contracting States have agreed. The Convention requires the use of three model forms: a request, a certification, and a summary of the document to be served. Under the Convention, a destination State may – but is not obliged to – recognize service through the "postal channel." Recently, service by electronic means ("e-mail service") has proven controversial – more specifically, with regard to whether e-service can be considered one of the methods of service allowed under Article 10.89

The question of service was also addressed in the Principles of Transnational Civil Procedure adopted by the American Law Institute (ALI) and UNIDROIT in 2004, 90 and subsequently modified by the European Law Institute (ELI) and UNIDROIT in regard to "the particularities of specific legal systems." The final text was adopted in 2020 and was published officially in 2021. 92

Within the OAS, the Inter-American Convention on Letters Rogatory addresses "the performance of procedural acts of a merely formal nature, such as service of process, summonses or subpoenas

^{86.} Hague Service Convention, supra note 20, at arts. 8-11, 18.

^{87.} These forms, and guidelines for completing them, are available at https://www.hcch.net/en/publications-and-studies/details4/?pid=6560&dtid=65 (last visited Mar. 20, 2022).

^{88.} See Conclusions and Recommendations of the Special Commission on the practical operation of the Hague Service, Evidence and Access to Justice Conventions (20-23 May 2014), at ¶ 37, HCCH (2014), available at https://assets.hcch.net/upload/wop/2014/2014sc concl en.pdf (last visited Mar. 20, 2022).

^{89.} Decisions by U.S. courts have reached differing conclusions. *See*, *e.g.*, Zanghi v. Ritella, No. 19 CIV. 5830 (NRB), 2020 WL 6946512 (S.D.N.Y. Nov. 25, 2020); Prem Sales, LLC v. Guangdong Chigo Heating & Ventilation Equip. Co., No. 5:20-CV-141-M-BQ, 2020 WL 6063452 (N.D. Tex. Oct. 14, 2020).

^{90.} See ALI / UNIDROIT Principles of Transnational Civil Procedure, UNIDROIT, available at https://www.unidroit.org/instruments/civil-procedure/ali-unidroit-principles/ (last visited June 6, 2022).

^{91.} See ELI/UNIDROIT Rules - Overview, UNIDROIT, available at https://www.unidroit.org/instruments/civil-procedure/eli-unidroit-rules/overview/ (last visited June 6, 2022).

^{92.} ELI/UNIDROIT MODEL EUROPEAN RULES OF CIVIL PROCEDURE (Jan. 2021), available at https://www.unidroit.org/wp-content/uploads/2021/06/English-integral.pdf (last visited Feb. 14, 2022). The official print edition, released on Oct. 19, 2021, is available through Oxford University Press at https://global.oup.com/academic/product/eli—unidroit-model-european-rules-of-civil-procedure-9780198866589?cc=us&lang=en#.

abroad," provided that the acts are not "acts of compulsion." Like the Hague Service Convention, it requires each Contracting Party to designate a central authority to ensure cooperation between jurisdictions but permits service by consular, diplomatic, and judicial channels. Within the EU, a specific regulation covers intra-community cross-border service. It is similar to the aforementioned regimes: transmitting agencies are to be used for sending judicial or extrajudicial documents to be served from one Member State to another. Other avenues include consular or diplomatic channels, postal services, or direct service.

B. Evidence

Different legal systems have different rules for obtaining evidence in preparation for trial – both in terms of what can be sought, what must be disclosed, and how it is collected. American lawyers are often surprised to find that the kind of extensive party-directed pre-trial discovery typical in U.S. courts is impermissible in many foreign jurisdictions, especially civil law jurisdictions.

The purpose of the 1970 Hague Evidence Convention⁹⁵ is to help bridge these differences. It provides for "letters of request" sent to a designated authority in the requested State for execution in accordance with local law. Consular and diplomatic agents can also take evidence when local law permits. In recently celebrating the Convention's 50th anniversary, the Hague Conference highlighted the need for greater use of technology in justice systems around the world, in particular the need for "technology-neutral instruments" to "facilitate cooperation in cross-border dispute settlement," including in the "taking of evidence remotely by video-link, where appropriate and subject to domestic law requirements."

^{93.} Inter-American Convention on Letters Rogatory, arts. 2a, 3, Jan. 30, 1975, O.A.S.T.S. No. 43; see also Additional Protocol to the Inter American Convention on Letters Rogatory, May 8, 1979, O.A.S.T.S. No. 56.

^{94.} Regulation (EC) No 1393/2007 of 13 November 2007 on the service in the Member States of judicial and extrajudicial documents in civil or commercial matters (service of documents), and repealing Council Regulation (EC) No 1348/2000, 2007 O.J. (L 324) 79 (EC).

^{95.} Hague Evidence Convention, *supra* note 21. The United States is a party.

^{96.} See HCCH a/Bridged: Innovation in Cross-Border Litigation and Civil Procedure Edition 2020 (Dec. 2, 2020), available at https://assets.hcch.net/docs/9bfe5d4a-355d-46ee-818a-b06410b83c60.pdf (last visited Feb. 14, 2022); see also Conclusions and Recommendations of the Special Commission on the practical operation of the Hague Service, Evidence and Access to Justice Conventions, supra note 88.

EU Regulation No. 1206/2001 allows courts in one Member-State jurisdiction to request information directly from other courts; member States designate central authorities but they are only meant to supply information to courts, to seek solutions to difficulties that may arise, and forwarding requests in "exceptional cases." In the Americas, the Inter-American Convention on Taking Evidence Abroad (and its additional protocol) focus on the use of letters rogatory as the vehicle for gathering evidence in foreign jurisdictions. 98

C. Apostilles

The purpose of the 1961 Hague Apostille Convention⁹⁹ is to simplify the process of "legalizing" public documents issued in one State so they can be given formal effect in another State. Such documents include birth, death, marriage and citizenship records, graduation diplomas, certificates of incorporation, patents, and judicial documents.¹⁰⁰ The Hague Apostille Section keeps a current list of authorities designated to issue apostilles in each State Party's jurisdiction.¹⁰¹

An electronic apostille program (the "e-APP") was launched in 2006. The e-APP (issued by one of the designated authorities in the document's State of origin) can be attached to an electronic document. An "e-register" is maintained for purposes of verifying the apostille. ¹⁰²

V. JUDGMENTS AND JURISDICTION

Different legal systems have different rules about when their courts can entertain different kinds of cases involving foreign or cross-border matters, as well as different criteria for giving effect to judgments issued

^{97.} See, e.g., Council Regulation No 1206/2001 of 28 May 2001 on cooperation between the courts of the Member States in the taking of evidence in civil or commercial matters, arts. 1, 2, 17, 2001 O.J. (L 174) 1 (EC).

^{98.} Inter-American Convention on Taking Evidence Abroad, Jan. 30, 1975, O.A.S.T.S. No. 44; Additional Protocol to the Inter-American Convention on Taking Evidence Abroad, May 24, 1984, O.A.S.T.S. No. 65.

^{99.} See Apostille Convention, supra note 19.

^{100.} In other words, documents from a court or tribunal, administrative documents, notarial acts, or official certificates. *See Outline – Hague Apostille Convention*, HCCH, available at https://assets.hcch.net/upload/outline12e.pdf (last visited Feb. 14, 2022) [hereinafter "Apostille Convention Outline"].

^{101.} See Authorities, HCCH, available at https://www.hcch.net/en/instruments/conventions/authorities1/?cid=41 (last visited Feb. 14, 2022).

^{102.} See Implementation Chart of the e-App, HCCH, available at https://assets.hcch.net/docs/b697a1f1-13be-47a0-ab7e-96fcb750ed29.pdf (last visited Feb. 14, 2022).

by foreign courts. These issues have long been at the core of private international law. In this area, much of the effort has been focused at the Hague Conference, which in 2005 adopted the Convention on Choice of Court Agreements, which requires the domestic courts of States party to give effect to the contracting parties' choice of domestic courts to resolve disputes arising from the relevant agreement and to give effect to the resulting judgments (subject to various conditions and requirements). ¹⁰³

A recent development of some significance was the adoption in 2019 of the Hague Convention on the Recognition and Enforcement of Foreign Judgments in Civil or Commercial Matters. This new treaty aims at promoting the international "circulation" of such judgments by setting out specific criteria for recognition and enforcement (as well as agreed grounds for refusal) of final judgments issued by the courts of other States parties.¹⁰⁴ The aim is to provide some measure of predictability to the transacting parties (and to their counsel) as to whether and to what extent a judgment will be given effect in another jurisdiction. The central obligation of States parties is to recognize and enforce qualifying judgements without a substantive review of the merits of the underlying dispute. To be eligible, however, judgments must have been rendered by a jurisdiction that has a sufficient jurisdictional connection to the issue in question, and they must not involve specified exclusions such as rights in rem, defamation and privacy, intellectual property, antitrust or competition law, or transboundary pollution law. 105

For several decades, the HCCH has been considering the question of trying to harmonize the "international" or cross-border jurisdiction of domestic courts in civil and commercial cases. Following the adoption of the 2005 Choice of Courts and 2019 Judgments Conventions, it established a Working Group to consider formulating rules for concurrent proceedings (parallel proceedings and related actions or claims) in

^{103.} See note 65, supra.

generally Judgments Section, HCCH, available at https://www.hcch.net/en/instruments/conventions/specialized-sections/judgments (last visited June 6, 2022). As of June 6, 2022, six States (including the United States) had signed Convention. See Status Table, HCCH, https://www.hcch.net/en/instruments/conventions/status-table/?cid=137 (last visited June 6, 2022).

^{105.} See generally David P. Stewart, The Hague Conference Adopts a New Convention on the Recognition and Enforcement of Foreign Judgments in Civil or Commercial Matters, 113 Am. J. Int'l L. 772 (2019); Louise Ellen Teitz, Another Hague Judgments Convention? Bucking the Past to Provide for the Future, 29 DUKE J. COMP. & Int'l L. 491 (2019); RECOGNITION AND ENFORCEMENT OF FOREIGN JUDGMENTS (Linda Silberman and Franco Ferrari eds., 2017).

different national systems.¹⁰⁶ Given the significant variations in the jurisdictional rules of national courts around the world, and the fact that within the EU the question is formally regulated,¹⁰⁷ this effort faces significant challenges. Some progress has nonetheless been made: the Working Group's meetings in late 2021 and early 2022 included discussion of parallel proceedings, and the chair's 2022 report provided both a draft of provisions on parallel proceedings for future discussion and a flowchart outlining the basic structure of a possible future convention ¹⁰⁸

VI. INTERNATIONAL FAMILY LAW

Marriages between individuals of different nationalities are increasingly common, and in consequence (regrettably) so are issues related to separation, divorce, and child custody and family support arrangements involving former partners living in different countries. The Hague Conference has been particularly active in the area of international family law, but it is not the only forum in which international family law is developed: the EU has standardized some of these relevant areas by regulation.

A. Divorce, Child Support, Family Maintenance and Parental

^{106.} See Legislative Work, HCCH, available at https://www.hcch.net/en/projects/legislative-projects (last visited Feb. 13, 2022).

^{107.} Council Regulation (EU) 44/2001 of Dec. 22, 2000, on jurisdiction and enforcement of judgments in civil and commercial matters, 2001 O.J. (L 12) 1 (EC) [hereinafter "Brussels I Regulation"], was superseded by Council Regulation 1215/2012 on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters, 2012 O.J. (L 351) 1 (EU) ["Brussels I Recast" or "Brussels I Bis"]. Regulation 1215/2012 applies "only to legal proceedings instituted, to authentic instruments formally drawn up or registered and to court settlements approved or concluded on or after 10 January 2015," and provides that Regulation 44/2001 "shall continue to apply to judgments given in legal proceedings instituted, to authentic instruments formally drawn up or registered and to court settlements approved or concluded before 10 January 2015 which fall within the scope of that Regulation." See id. at arts. 66 & 80. A chart comparing the provisions of these two regulations can be found in Annex III of Regulation 1215/2012. See also Austen Parrish, Personal Jurisdiction: The Transnational Difference, 59 VA. J. INT'L L. 97 (2019); MARTA REQUEJO ISIDRO, BRUSSELS 1 BIS: A COMMENTARY (Elgar, 2022).

^{108.} See Report of the Working Group on Jurisdiction (Mar. 2022), HCCH, at Annex I et seq., available at https://assets.hcch.net/docs/d05583b3-ec71-4a5b-829c-103a834173bf.pdf (last visited Aug. 5, 2022);

Responsibility

While the rules regarding marriage itself remain primarily a matter of domestic law (and are rarely regulated by international instruments), that is less true with respect to termination of the relationship and its consequences.

Within the EU, the Brussels IIa Recast Regulation deals in part with jurisdiction, recognition, and enforcement of judgments in matrimonial matters and matters of parental responsibility and establishes uniform jurisdictional rules for legal separation, divorce, and annulment. It requires Member States to designate a central authority to oversee the Regulation's application, including requests from other Member States for information on national laws and procedures or for judicial assistance.¹¹⁰ The Rome III Regulation¹¹¹ provides for conflicts of law rules applicable to divorce and legal separation that recognize a role for the "autonomy" of parties, for instance by enabling couples from different countries to agree in advance which law would apply in the event of their divorce or legal separation (and, in the event the couple cannot agree, it provides a formula by which judges can decide which country's law applies). Similarly, child custody and family support arrangements involving former partners living in different countries within the EU are also standardized by regulation; the EU Maintenance Regulation, 112 for example, enumerates the rules for jurisdiction over such disputes.

The Hague Conference's 2007 Convention on the International Recovery of Child Support and Other Forms of Family Maintenance, and its Protocol on the Law Applicable to Maintenance Obligations, are, like the EU Maintenance Regulation, intended to establish a workable system for the cross-border recovery of child support and other forms of family

^{109.} Council Regulation (EC) 2019/1111 of 25 June 2019 on jurisdiction, the recognition and enforcement of decisions in matrimonial matters and the matters of parental responsibility, and on international child abduction, 2019 O.J. (L 178) I (EU) [hereinafter "Brussels IIa Recast"].

^{110.} See id. at preamble ¶¶ 72, 75-76, 78, 84-85; id. at arts. 76-80, 82, 86-87.

^{111.} Council Regulation (EU) No. 1259/2010 of 20 December implementing enhanced cooperation in the area of the law applicable to divorce and legal separation, 2010 O.J. (L 343) 10 (EU) [hereinafter "Rome III"].

^{112.} Council Regulation (EU) No 4/2009 of 18 December 2008 on jurisdiction, applicable law, recognition and enforcement of decisions and cooperation in matters relating to maintenance obligations, 2009 O.J. (L 7) 1 (EC) [hereinafter "EU Maintenance Regulation"].

maintenance. This Convention requires States Parties to establish an efficient system for recognizing and enforcing maintenance decisions made in other Contracting States. The United States became a party to this Convention in 2016; it is given domestic effect by the 2008 Uniform Interstate Family Support Act ("UIFSA"), enacted in every state of the Union as well as the District of Columbia, Puerto Rico, and the U.S. Virgin Islands. The EU is also now party to the 2007 Convention and its Protocol, and its application was taken into account in the EU Maintenance Regulation.

The United States has signed but not ratified the 1996 Hague Convention on Jurisdiction, Applicable Law, Enforcement and Cooperation in Respect of Parental Responsibility and measures for the Protection of Children (the Child Protection Convention). A large number of European States (but not the EU as a legal entity), as well as a number of South American countries, have adopted this convention.

The EU's regulations related to family law sometimes overlap with Hague Conventions on the same subject. For example, as noted above, the Brussels IIa Recast Regulation deals with jurisdiction, the recognition and enforcement of judgments in matrimonial matters as well as matters of parental responsibility, and it therefore sometimes covers the same

^{113.} Convention on the International Recovery of Child Support and Other Forms of Family Maintenance, Nov. 23, 2007, and its Protocol on the Law Applicable to Maintenance Obligations, Nov. 23, 2007, both available in the "Child Support Section" at https://www.hcch.net/en/instruments/conventions/specialised-sections/child-support (last visited May 25, 2022). The EU is a Party to the Convention. See Status Table, HCCH, available at https://www.hcch.net/en/instruments/conventions/status-table/?cid=131 (last visited Feb. 13, 2022).

^{114.} Uniform Family Interstate Support https://www.uniformlaws.org/committees/community-home?CommunityKey=71d40358-8ec0-49ed-a516-93fc025801fb (last visited Mar. 20, 2022). The last U.S. states to enact it did so in 2016. See also International Child Support Enforcement, U.S. DEP'T OF STATE, https://travel.state.gov/content/travel/en/legal/travel-legal-considerations/intl-childsupport.html (last visited Mar. 20, 2022); Office of Child Support Enforcement -DEP'T OF HEALTH AND International, www.acf.hhs.gov/css/partners/international (last visited Mar. 20, 2022). The United States has not ratified the 2007 Protocol.

^{115.} See EU Maintenance Regulation, supra note 112. The conflicts of laws rules refer to those of the Protocol. See id. at art. 15. The Maintenance Regulation has separate sections on recognition and enforcement of decisions given in those countries that have adopted the Hague Protocol of 23 November 2007 on the Law Applicable to Maintenance Obligations and those countries that have not. See id. at ch. IV.

^{116.} Convention on Jurisdiction, Applicable Law, Recognition, Enforcement and Cooperation in Respect of Parental Responsibility and Measures for the Protection of Children, Oct. 19, 1996, available at https://assets.hcch.net/docs/f16ebd3d-f398-4891-bf47-110866e171d4.pdf (last visited May 25, 2022) [hereinafter "Child Protection Convention"].

ground as the Child Protection Convention. These intersections can, on occasion, make it somewhat more difficult to navigate the wide range of conflicts of jurisdiction, conflicts of law and recognition rules, as well as the identification of the national authorities in charge of the cooperation between administrative or judicial authorities related to those matters. The EU has (sometimes) addressed such overlaps: Brussels IIa Recast includes provisions that direct parties on how to tackle relationships with a number of other, related international instruments (should the need to do so arise). 117

B. Parental Abduction

On occasion, a child may be wrongly removed from the "habitual environment" of the parent or other person to whom custody has been lawfully granted. When such an abduction crosses international boundaries, the legal issues can become complicated.

The 1980 Hague Convention on the Civil Aspects of International Child Abduction is intended to deter the illegal removal of children (under 16 years of age) across borders, to ensure their prompt return, and to establish reciprocal mechanisms for enforcing custodial rights in Contracting States. ¹¹⁸ In this respect, the Abduction Convention not only contributes to the resolution of thousands of cases of abduction, but also acts as a deterrent to many other cases, with its clear message pointing out that abduction is harmful to the child, who has the right to contact both parents, and the effectiveness of its measure for the immediate return

^{117.} See, e.g., Brussels IIa Recast, supra note 109, at ch. VIII. For example, Article 95 provides that Brussels IIa Recast takes precedence over the Hague Convention of 5 October 1961 concerning the Powers of Authorities and the Law Applicable in respect of the Protection of Minors, and the Hague Convention of 1 June 1970 on the Recognition of Divorces and Legal Separations. Article 96 deals specifically with the relationship between Brussels IIa Recast and the Hague Convention of 25 October 1980 on the Civil Aspects of International Child Abduction. Article 97 deals specifically with the relationship between Brussels IIa Recast and the Hague Convention of 19 October 1996 on Jurisdiction, Applicable Law, Recognition, Enforcement and Cooperation in Respect of Parental Responsibility and Measures for the Protection of Children.

^{118.} Convention on the Civil Aspects of International Child Abduction, Oct. 25, 1980, available at https://www.hcch.net/en/instruments/conventions/full-text/?cid=24 (last visited Feb. 10, 2022). Note that the Brussels IIa Recast Regulation also deals with international child abduction. Its provisions complement the 1980 Hague Convention: Article 22, which provides that "Where a person, institution or other body alleging a breach of rights of custody applies, either directly or with the assistance of a Central Authority, to the court in a Member State for a decision on the basis of the 1980 Hague Convention ordering the return of a child under 16 years that has been wrongfully removed or retained in a Member State other than the Member State where the child was habitually resident immediately before the wrongful removal or retention, Articles 23 to 29, and Chapter VI, of this Regulation shall apply and complement the 1980 Hague Convention." See Brussels IIa Recast, supra note 109, at ch. III.

of the child.¹¹⁹ The Hague Conference maintains a regularly-updated database of relevant decisions from the various Contracting States and hosts an electronic case management tool that "identifies, stores, and disseminates information used to manage and monitor international child abduction and access cases."¹²⁰

In the United States, the Abduction Convention is implemented by the International Child Abduction Remedies Act (ICARA). ¹²¹ The Office of Children's Issues in the U.S. Department of State's Bureau of Consular Affairs serves as the U.S. Central Authority. ¹²² According to recent analysis by the Hague Conference, the U.S. is making the most applications for return and receiving the most return applications. ¹²³ Those figures clearly demonstrate the importance of these issues for American practitioners and students.

C. Intercountry Adoption

The Hague Conference has also addressed the growing practice of cross-border adoptions and the attendant difficulties. Its 1993 Convention on the Protection of Children and Co-operation in Respect of

^{119.} Linda D. Elrod & Milfred D. Dale, Paradigm Shifts and Pendulum Swings in Child Custody: The Interests of Children in the Balance, 42 FAM. L.Q. 381 (2008).

^{120.} See Child Abduction Section, HCCH, available at https://www.hcch.net/en/instruments/conventions/specialised-sections/child-abduction (last visited Feb. 14, 2022); HCCH, ICHILD USER GUIDE 5 (2007), available at https://assets.hcch.net/docs/141934fc-83b7-4106-9ba6-5c3ea3ba6b85.pdf (last visited June 6, 2022). The International Child Abduction Database ("Incadat") is available at https://www.incadat.com/en (last visited May 25, 2022). See generally PETER MCELEAVY & AUDE FIORINI, THE HAGUE CONVENTION ON INTERNATIONAL CHILD ABDUCTION (2nd ed. 2021).

^{121.} See 22 U.S.C. § 9001 et seq. (2021). A substantial body of U.S. case law has emerged under this statute. See, e.g., Monasky v. Taglieri, 140 U.S. 719 (2020).

^{122.} See 22 U.S.C. § 9006; see also 22 C.F.R. 94.6. See also International Parental Child Abduction, U.S. DEP'T. OF STATE, available at https://travel.state.gov/content/travel/en/International-Parental-Child-Abduction.html (last visited Feb. 12, 2021).

^{123.} NIGEL LOWE & VICTORIA STEPHENS, A STATISTICAL ANALYSIS OF APPLICATIONS MADE IN 2015 UNDER THE HAGUE CONVENTION OF 25 OCTOBER 1980 ON THE CIVIL ASPECTS OF INTERNATIONAL CHILD ABDUCTION (2017) at ¶ 29 ("Combining both incoming and outgoing applications the [Central Authority of the] United States of America (USA) handled the greatest number with 597 applications ..."), available at https://assets.hcch.net/docs/d0b285f1-5f59-41a6-ad83-8b5cf7a784ce.pdf_(last visited Feb. 12, 2022).

Intercountry Adoption¹²⁴ is aimed at protecting children (and their families) against the risks of illegal, irregular, premature, or ill-prepared adoptions abroad. Each Contracting Party must establish a central authority to deal with cross-border child adoption issues and ensure that Convention procedures are followed. If an adoption is made in accordance with the procedures outlined in the Convention, all other Contracting Parties must recognize the adoption "by operation of law." ¹²⁵

In U.S. law, the Convention applies to all adoptions by U.S. citizens habitually resident in the United States of children habitually resident in any other country that is a party. It is implemented by the federal Intercountry Adoption Act of 2000 ("IAA"). ¹²⁶ Only federally accredited adoption service providers may offer certain key adoption services for Convention adoptions. The Office of Children's Services in the U.S. Department of State serves as the U.S. Central Authority. ¹²⁷

D. Other Initiatives

Within the HCCH, work continues in other family law areas. For instance, an Experts Group on cross-border recognition and enforcement of agreements in family matters involving children published its latest findings in 2020, focused inter alia on the use of mediation to resolve conflicts related to parental agreements. The group found that "in order for such amicable solutions to be effective, they must be in a form that allows their recognition and enforcement in States other than the State where the agreement was reached," which suggests that a binding instrument dealing with these issues would be a useful innovation. The Conference has also undertaken projects on parentage and surrogacy and on cohabitation outside of marriage, addressing the challenges when

^{124.} Convention on Protection of Children and Co-operation in Respect of Intercountry Adoption, May 29, 1993, *available at* https://www.hcch.net/en/instruments/conventions/full-text/?cid=69 (last visited Feb. 11, 2022), [hereinafter "Hague Adoption Convention"].

^{125.} Id. at art. 23.

^{126.} See Pub. L No. 106-279 (Oct. 6, 2000), codified at 42 U.S.C.A. §§ 14901 et seq. (2021).

^{127.} See Intercountry Adoption, U.S. DEP'T OF STATE, available at https://travel.state.gov/content/travel/en/Intercountry-Adoption.html/ (last visited Feb. 11, 2022).

^{128.} See, e.g., Overview of the findings of the Experts' Group on cross-border recognition and enforcement of agreements in family matters involving children in relation to the development of a normative instrument, HCCH (March 2020), available at https://assets.hcch.net/docs/3cd99dea-d087-4999-8016-57f738854e90.pdf (last visited Feb. 11, 2022).

^{129.} Id. at ¶ 12.

unmarried couples "become subject to a foreign legal system that does not necessarily recognize their status in relation to one another, or in relation to third parties, such as adopted children." ¹³⁰

E. Other Regional Efforts

Within the OAS, several family law-related instruments have been adopted, including the Inter-American Convention on Support Obligations, ¹³¹ the Inter-American Convention on the International Return of Children, ¹³² the Inter-American Convention on the Conflict of Laws Concerning the Adoption of Minors, ¹³³ and the Inter-American Convention on International Traffic in Minors. ¹³⁴ These instruments operate in much the same way as the Hague Conventions and the Brussels II regulations, by providing obligations and mechanisms for cooperation among designated central authorities in each Contracting Party.

F. Wills, Trusts, and Estates

Another focus of harmonization efforts is testamentary succession and administration of estates. In 1973, for instance, UNIDROIT proposed a Convention Providing for a Uniform Law on the Form of an International Will. To date, it has entered into force for 13 States; 136

^{130.} See, e.g., Report of the Experts' Group on the Parentage / Surrogacy Project (meeting from 12 to 16 October 2020) (Mar. 2021), HCCH, at Annex I, available at https://assets.hcch.net/docs/a6aa2fd2-5aef-44fa-8088-514e93ae251d.pdf (last visited Feb. 11, 2022); Update on the Developments in Internal Law and Private International Law Concerning Cohabitation Outside Marriage, Including Registered Partnerships (Mar. 2015), HCCH, at ¶ 1, available at https://assets.hcch.net/upload/wop/gap2015pd05en.pdf (last visited Feb. 11, 2022).

^{131.} Inter-American Convention on Support Obligations, July 15, 1989, O.A.S.T.S. No. 71.

^{132.} Inter-American Convention on the International Return of Children, July 15, 1989, O.A.S.T.S. No. 70.

^{133.} Inter-American Convention on the Conflict of Laws Concerning the Adoption of Minors, May 24, 1984, O.A.S.T.S. No. 62.

^{134.} Inter-American Convention on International Traffic in Minors, Mar. 18, 1994, O.A.S.T.S. No. 79.

^{135.} Convention Providing a Uniform Law on the Form of an International Will, Oct. 26, 1973, available at https://www.unidroit.org/instruments/international-will (last visited Apr. 4, 2022).

^{136.} See id. at art. XIV (the Convention permits States with "two or more territorial units in which different systems of law apply in relation to matters respecting the form of wills [...] to declare that this Convention shall extend to all its territorial units or only to one or more of them, and may modify its declaration by submitting another declaration at any time."). Canada made such a declaration; accordingly, although UNIDROIT counts Canada in the thirteen States for whom the Convention has entered into force, it has only entered into force

the United States signed in 1973 but a proposed uniform implementing statute has not gained significant support.¹³⁷

Similarly, in 1985, the HCCH proposed a *Convention on the Law Applicable to Trusts and on their Recognition*, ¹³⁸ intended to address the complications arising from the fact that such instruments, while well-known in common law countries, are generally not recognized or embraced in civil law systems. ¹³⁹ A proposed Hague Convention on the Law Applicable to Succession to the Estates of Deceased Persons, ¹⁴⁰ adopted in 1989, has failed to gain support, even though it is increasingly common for the estates of decedents to include personal, investment, or business assets in more than one national jurisdiction (and thus subject to differing national laws) and despite the fact that the Convention is addressed primarily to the choice of law rules applicable to succession rather than the disposition of substantive assets. ¹⁴¹

VII. OTHER SUBSTANTIVE ISSUES AND INSTRUMENTS

We mention here only a few of the many efforts to standardize or harmonize the rules of law in other substantive areas relevant to private cross-border transactions.

for nine of Canada's thirteen provinces and territories. See Status - Convention Providing a Uniform Law on the Form of an International Will, UNIDROIT, available at https://www.unidroit.org/instruments/international-will/status/ (last visited Apr. 4, 2022).

^{137.} See Status - Convention Providing a Uniform Law on the Form of an International Will, supra note 136; Uniform Wills Recognition Act 1977, UNIFORM L. COMM., available at https://www.uniformlaws.org/committees/community-home?communitykey=e0a2332d-5263-4fab-880f-1607fc5affba&tab=groupdetails (last visited Apr. 4, 2022).

^{138.} Convention on the Law Applicable to Trusts and on their Recognition, July 1, 1985, available at https://assets.hcch.net/docs/8618ed48-e52f-4d5c-93c1-56d58a610cf5.pdf (last visited Apr. 4, 2022).

^{139.} See ALFRED E. VON OVERBECK, EXPLANATORY REPORT ¶ 12 (Permanent Bureau of the HCCH trans., 1985), available at https://assets.hcch.net/docs/ec6fb7e0-deda-417f-9743-9d8af6e9e79b.pdf (last visited Mar. 20, 2022).

^{140.} Convention on the Law Applicable to Succession to the Estates of Deceased Persons, Aug. 1, 1989, *available at* https://assets.hcch.net/docs/5af01fa4-c81f-4e99-b214-64421135069f.pdf (last visited Jun. 6, 2022) (not yet in force).

^{141.} See DONOVAN W.M. WATERS, EXPLANATORY REPORT ON THE CONVENTION ON THE LAW APPLICABLE TO SUCCESSION TO THE ESTATES OF DECEASED PERSONS 21 (Permanent Bureau of the HCCH ed., 1989), available at https://assets.hcch.net/docs/7bfd5915-bf1b-4f9f-9b93-61f979bf8e61.pdf (last visited Apr. 4, 2022).

A. Commercial Law

Differences in national laws and procedures governing commercial transactions have long posed impediments to cross-border trade, giving rise to efforts at harmonization. Indeed, many trace PIL's conceptual origins to the emergence of a standardized *lex mercatoria* or "merchant law" in Europe during the Middle Ages. Harmonization of the relevant rules, or at least the removal of obstacles to smooth transactions and dispute settlement, remains an important objective.

The task is more easily described than accomplished. Differences in approach to economic (as well as political) issues in legal systems around the world pose obstacles to harmonization. In many countries, the national legislature has adopted a single, comprehensive national code (consider, for example, the commercial codes of Germany, ¹⁴³ France ¹⁴⁴ and Turkey ¹⁴⁵) while in others, the approach is less centralized. In the United States, for example, much of the substantive commercial law remains a matter of state law, with a relatively limited role for the federal government, and it is accordingly found in both judicial decisions (common law) and statutes. ¹⁴⁶

^{142.} See, e.g., Friedrich K. Juenger, The Lex Mercatoria and Private International Law, 60 LA. L. REV. 1133, 1134-35 (2000) ("A lex mercatoria with universal purport, which Maitland called the "private international law" of the Middle Ages," developed after the Dark Ages, when trade and commerce once again brought together merchants from many parts. The rules that governed their transactions were not purely local in nature. Nor, however, were they derived from the other supranational systems of the times, the revived ius civile elaborated by law teachers in Upper Italy and the Catholic Church's canon law. Rather, the emerging law merchant, which amounted to a 'rebirth of the old jus gentium of the Mediterranean,' had to develop institutions, such as negotiable instruments, for which these legal systems offered no counterpart to deal with the exigencies of commercial transactions that did not respect territorial boundaries.").

^{143.} See HANDELSGESETZBUCH [HGB] [COMMERCIAL CODE] (GER.), BGBI., Federal Law Gazette, available at https://www.gesetze-im-internet.de/englisch hgb/englisch hgb.html#p0018

^{144.} See CODE DE COMMERCE [COMMERCIAL CODE] (Fr.), available at https://www.legifrance.gouv.fr/codes/id/LEGITEXT000005634379/ (last visited Apr. 4, 2022)

^{145.} See TÜRK TICARET KANUNU [TURKISH COMMERCIAL CODE], Kanun Numarası 6102, available at https://www.mevzuat.gov.tr/MevzuatMetin/1.5.6102.pdf (last visited Apr. 7, 2022).

^{146.} Efforts to harmonize certain aspects of the law in the United States have been undertaken through the Uniform Commercial Code, a privately promulgated model law instrument intended to conform aspects of state law. While adopted in all fifty U.S. states, it has been modified by state legislatures in various ways and consequently is not precisely "uniform." Neither is it a complete "code."

One obvious risk for parties involved in international trade and commercial transactions is confusion over the meaning of terms commonly used in the relevant contracts. In a purely domestic context, geographical proximity, local knowledge, and common approaches make it relatively easy for the parties to assess the risks of doing business with each other and, therefore, to agree on the terms of the transaction. In the cross-border context (much like the hypothetical at the beginning of this article), the task is more complicated: with little (perhaps no) understanding of the foreign country's laws or practices, contracting parties may not be sure they understand the terms of the transaction in the same way or that each will be able to comply accordingly.

To illustrate the variety of international approaches in this broad substantive area, we begin by noting three very different approaches.¹⁴⁷

(i) Incoterms

The first involves "soft law" efforts to define the "international commercial terms" typically used in transnational contracts for the sale of goods. The first set of "Incoterms," adopted in 1936 by the International Chamber of Commerce, aimed to minimize misunderstandings about basic elements of the transactions in question. While non-binding, they were quickly embraced and have been frequently updated and are still widely used. The latest revision (effective January 1, 2020) contains eleven definitions, defining how and when parties bear the costs and risks of shipping and delivery. 148

In the same vein, other trade associations have created standard forms for international shipping. In the freight forwarding industry, for example, standardized documents created by the International Federation of Freight Forwarders Associations are widely used.¹⁴⁹

(ii) The U.N. Convention on Contracts for the International Sale of Goods

^{147.} See generally Christian Twigg-Flesner, Foundations of International Commercial Law (2021); see also UNCITRAL, HCCH & UNIDROIT: Legal Guide to Uniform Instruments in the Area of International Commercial Contracts, with a Focus on Sales 27, 44, 77, U.N. Sales No. E.21.V.3 (2021), available at https://assets.hcch.net/docs/0571d8ca-8b56-41a2-8443-4fe93e306c17.pdf (last visited Apr. 11, 2022).

^{148.} See Introduction to Incoterms 2020, INT'L CHAMBER OF COM., available at https://file-eu.clickdimensions.com/iccwboorg-

avxnt/files/723e_inco2020_eng_intro.pdf?m=6/3/2020%202:01:57%20PM&_cldee=eFPP5 X 7GzH1unpbpP3vANlg5-peFwGEoSL8Y0U2FBqTtv—-

pCNQkItK9FRGPqJ&recipientid=contact-0ddf912cc1b9ec11983f000d3ab54bee visited Apr. 11, 2022). (last

^{149.} See Who We Are, INTERNATIONAL FEDERATION OF FREIGHT FORWARDERS ASSOCIATIONS, available at https://fiata.org/who-we-are.html (last visited Apr. 20, 2022).

A different approach entails codification of substantive rules by multilateral treaty, of which the 1980 UN Convention on Contracts for the International Sale of Goods ("CISG") is a good example. The CISG applies to contracts for the sale of goods when the contracting parties have places of business in different States and when (i) both places of business are in Contracting States or (ii) the choice of law in the relevant jurisdiction leads to the law of a Contracting State. Party autonomy and contractual freedom are key components of the Convention: if parties wish to derogate from its rules or exclude them entirely from their sales contract, they may do so. However, the Convention has limited substantive scope: it applies only to the sale of goods (subject to certain exclusions 152) and deals only with the *formation* of the contract (and *not* with the validity of the contract, the contract's effect, or liability related to the contract).

The Convention was negotiated under the auspices of UNCITRAL, which, as noted *supra*, maintains the CLOUT database of relevant decisional interpretations.¹⁵³ This repository can be a valuable reference for practitioners and judges alike.

(iii) The Rome I Regulation

At the regional level, where the goal is the creation of an integrated economic system, substantive harmonization of commercial law can be the priority. Within the European Union, for example, the Rome I Regulation accepts the parties' freedom to choose the law applicable to their contractual relationship in civil and commercial matters subject to mandatory choice of law rules for contractual obligations.¹⁵⁴

^{150.} CISG, supra note 28; for a list of contracting States, see also generally Status: United Nations Convention on Contracts for the International Sale of Goods (Vienna, 1980) (CISG), UNCITRAL, available at https://uncitral.un.org/en/texts/salegoods/conventions/sale_of_goods/cisg/status (last visited Apr. 11, 2022).

^{151.} CISG Art. 95 allows States Party to declare they will apply the CISG only when both parties are resident in Contracting States.

^{152.} Exclusions include sales of goods bought for personal, family, or household use; auction sales; sales that occur by authority of law; sales of stocks, shares, investment securities, negotiable instruments or money; sales of ships, vessels, hovercraft or aircraft; and sales of electricity.

^{153.} See CLOUT, supra note 34.

^{154.} Rome I, *supra* note 59 (art. 5 deals specifically with contracts of carriage, addresses choice of law, and provides rules for the carriage of passengers); *see infra* p. 45 for more indepth discussion of art. 5's limitations on party autonomy.

B. Cross-Border Payments

In the cross-border context, a seller may be unable easily to vet a foreign buyer's ability or willingness to pay, particularly if the two have had no prior dealings. In the event of non-payment, the seller may find it difficult to get access to the buyer's assets. For that reason, payment obligations in international transactions are frequently set out in documentary letters of credit or guarantees. Different legal frameworks provide globally applicable rules for different types of documentary transactions when they occur across borders.

For example, the Uniform Customs and Practice for Documentary Credits ("UCP") provides a set of rules to supplement the governing law of a letter of credit transaction. More recently the ICC has adopted supplementary rules to address the electronic presentation of documents, reflecting its expectation that "traditional trade instruments will, over time, inexorably move towards a mixed ecosystem of paper and digital, and, ultimately, to electronic records alone." The ICC has also developed the Uniform Rules for Demand Guarantees ("URDG") to foster standard international banking practices for demand guarantee-issuing banks.

Under standby letters of credit, the issuer agrees to make payment to the beneficiary if the principal defaults on the relevant undertaking, but the agreement is independent of the underlying contract. The Institute of International Banking Law & Practice developed the International Standby Practices specifically for this type of arrangement. The UN Convention on Independent Guarantees and Stand-by Letters of Credit applies to both independent guarantees and stand-by letters of credit but has not yet been widely adopted.

^{155.} For a summary of the most recent version (UCP 600), adopted in 2007, see *UCP 600 (Uniform Customs & Practice for Documentary Credits) - What does UCP 600 mean?*, TRADE FIN. GLOB., available at https://www.tradefinanceglobal.com/letters-of-credit/ucp-600/ (last visited Apr. 11, 2022).

^{156.} See David Meynell, Introduction to UCP Version 2.0, in INT'L CHAMBER OF COM., EUCP VERSION 2.0, (May 2019), available at https://iccwbo.org/content/uploads/sites/3/2019/06/icc-uniform-customs-practice-credits-v2-0.pdf (last visited Apr. 11, 2022).

^{157.} See, e.g., Raymond Cox & Niamh Cleary, URDG 758, THOMPSON REUTERS PRAC. L. (last detailed review and updating in Dec. 2018), available at _https://tmsnrt.rs/2Oc84Al (last visited Apr. 20, 2022).

^{158.} See ISP 98, INST. OF INT'L BANKING L. & PRAC., available at https://iiblp.org/isp98/ (last visited Apr. 11, 2022).

^{159.} UN Convention on Independent Guarantees and Stand-by Letters of Credit, Dec. 11, 1995, 2169 U.N.T.S. 163; see also Filip de Ly, The UN Convention on Independent

C. Transportation of Goods

The cross-border carriage of goods can occur by road, rail, air, sea, or some combination thereof ("multimodal transport"). A variety of instruments, both regional and global, have been developed to standardize the relevant arrangements. Within the EU, for instance, Article 5 of the Rome I Regulation deals specifically with choice of law in contracts of carriage; it places limits on party autonomy, for example, by restricting the parties who *do* wish to choose by limiting their available options to the country where (a) the passenger has his habitual residence, (b) the carrier has his habitual residence, (c) the carrier has his place of central administration, (d) the place of departure is situated, or (e) the place of destination is situated.

Road. A number of instruments address the carriage of goods by road, including the 1956 UN Convention on the Contract for the International Carriage of Goods by Road ("CMR"), which applies to "every contract for the carriage of goods by road in vehicles for reward, when the place of taking over of the goods and the place designated for delivery, as specified in the contract, are situated in two different countries, of which at least one is a contracting country, irrespective of the place of residence and the nationality of the parties." A similar convention exists (but has not yet entered into force) within the OAS: the Inter-American Convention on Contracts or the International Carriage of Goods by Road. 162

Rail. A separate treaty establishes rules applicable to contracts for the carriage of goods by rail between member States. Like the CRM, the 1980 Convention Concerning International Carriage by Rail ("COTIF") allows for party autonomy. ¹⁶³ It has been ratified mostly by European,

Guarantees and Stand-by Letters of Credit, 33 THE INT'L LAW. 832 (1999); see also U.N. Convention on Independent Guarantees and Stand-By Letters of Credit, S. Treaty Doc. No. 114-9 (2d Sess. 2016) (in the United States, this treaty was submitted to the U.S. Senate February 10, 2016, for advice and consent to ratification).

^{160.} Rome I, supra note 59, at art. 5(2).

^{161.} Convention on the Contract for the International Carriage of Goods by Road art. 1, May 19, 1956, 399 U.N.T.S. 189. Most (although not all) of the CMR's 58 contracting parties are European or Central Asian nations.

^{162.} Inter-American Convention on Contracts for the International Carriage of Goods by Road, Jul. 15, 1989, O.A.S.T.S. No. 72.

^{163.} See Convention Concerning International Carriage by Rail app. B art. 1, May 9, 1980, amended June 3, 1999, available at http://otif.org/fileadmin/new/3-Reference-Text/3A-COTIF99/05_Appendix_B.pdf (last visited Apr. 10, 2022)).

African, and Near Eastern States. 164 The Convention's governing body also oversees the Regulation concerning the International Carriage of Dangerous Goods by Rail ("RID"), which the EU has incorporated through Directive 2008/68/EC. 165

Water. Some 90% of world trade goes by sea, ¹⁶⁶ so it is unsurprising that maritime transportation of goods has long been governed by international agreements, ¹⁶⁷ most recently the 2008 UN Convention on Contracts for International Carriage of Goods Wholly or Partly by Sea ("the Rotterdam Rules"). ¹⁶⁸ That convention establishes uniform liability rules for contracts between shippers and carriers for the international carriage of goods by sea and the obligations of the carrier and the shipper, transport documents and electronic transport records, limits of liability, and provisions regarding the time for suit to be filed, jurisdiction, and arbitration. ¹⁶⁹ A separate agreement applies to contracts of carriage by inland waterways. ¹⁷⁰

Air. Anyone who has traveled internationally by air should be familiar with the Montreal Convention, a widely ratified treaty that establishes a liability regime for passengers accidentally injured or killed in the course of a flight, as well as for delay, loss, or damage to baggage and air cargo. ¹⁷¹

^{164.} For a current list of States Party, see Status of the Protocol of 3 June 1999 for the Modification of the Convention concerning International Carriage by Rail (COTIF) of 9 May 1980, INTERGOVERNMENTAL ORG. FOR INT'L CARRIAGE BY RAIL, available at http://otif.org/fileadmin/new/3-Reference-Text/3A-

COTIF99/Status_Protocol%201999_e_as%20at_01-05-2019.pdf (last visited June 6, 2022).

^{165.} See Directive 2008/68/EC of the European Parliament and of the Council of 24 September 2008 on the inland transport of dangerous goods, 2008 O.J. (L 260) 13 (EC).

^{166.} See Explaining Shipping. INT'L CHAMBER OF SHIPPING, available at https://www.ics-shipping.org/explaining/ (last visited Apr. 10, 2022); see generally United Nations Conference on Trade and Development, Review of Maritime Transport 2019, U.N. Doc UNCTAD/RMT/2019/Corr.1 (Jan. 31, 2020).

^{167.} Such as the Hague Rules (1924), the Hague-Visby Rules (1968), and the Hamburg Rules (1978).

^{168.} See Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea, Dec. 11, 2008, available at https://uncitral.un.org/sites/uncitral.un.org/files/media-documents/uncitral/en/rotterdam-rules-e.pdf (last visited Apr. 10, 2022).

^{169.} Id.

^{170.} The Budapest Convention on the Contract for the International Carriage of Passengers and Luggage by Inland Waterway, Oct. 3, 2000, available at http://www.unece.org/fileadmin/DAM/trans/main/sc3/cmniconf/cmnidoc/finalconf02e.pdf (last visited May 25, 2022).

^{171.} See Convention for the Unification of Certain Rules for International Carriage by Air, May 28, 1999, available at

D. E-Commerce, the Internet, and the Digital Economy

The rapid emergence of electronic methods for transacting business ("e-commerce") has posed significant challenges for private international law. UNCITRAL's Working Group IV has been a focal point for the development of agreed international rules regarding the digital economy. Among the instruments it has adopted are Model Laws on Electronic Commerce (1996), Electronic Signatures (2001), and Electronic Transferable Records (2017), 172 as well as the UN Convention on Electronic Communications in International Contracts (2005). 173 In 2019, UNCITRAL approved the publication of "Notes on the Main Issues of Cloud Computing Contracts," while continuing work on a new instrument on the use and cross border recognition of electronic identity management services ("IdM services") and authentication services ("trust services").

Other recent regulations on a regional level have addressed e-commerce issues, for example the European Union's General Data Protection Regulation ("GDPR"). 174

E. Mobile Equipment

Large-scale mobile equipment – such as aircraft, railroad rolling stock, satellites, construction vehicles, and other large machines – is costly to build, use and maintain; it is therefore often leased rather than purchased outright. It is also designed to move and, not infrequently, crosses national borders. Differences in how domestic legal systems approach rights dealing with secured transactions, title, and leasing agreements create significant uncertainties and make access to financing more difficult and more expensive, particularly in developing

https://www.iata.org/contentassets/fb1137ff561a4819a2d38f3db7308758/mc99-full-text.pdf (last visited Apr. 10, 2022) [hereinafter "Montreal Convention"].

^{172.} See generally Working Group IV: Electronic Commerce, UNCITRAL, available at https://uncitral.un.org/en/working_groups/4/electronic_commerce (last visited Apr. 10, 2022); see also Electronic Commerce, UNCITRAL, available at https://uncitral.un.org/en/texts/ecommerce (last visited Apr. 10, 2022).

^{173.} See Convention on the Use of Electronic Communications in International Contracts, Nov. 23, 2005, 2898 U.N.T.S. 3. The Convention was submitted to the U.S. Senate on February 10, 2016. See S. Treaty Doc. No. 114-5.

^{174.} Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation), 2016 O.J. (L 119) I [hereinafter "GDPR"]. For one approach to the issues, see DAN JERKER SVANTESSON, PRIVATE INTERNATIONAL LAW AND THE INTERNET (2021).

countries.¹⁷⁵ The owner or lessor may not be confident that its security interest in the equipment will be respected in the new jurisdiction, or whether the rights and remedies that came with a security interest obtained in the original jurisdiction were transferred "as is" to the new jurisdiction when the property in question moved across borders.¹⁷⁶

UNIDROIT's 2001 Cape Town Convention on International Interests in Mobile Equipment¹⁷⁷ was designed to address the challenges inherent in obtaining secure, enforceable rights for this type of high-value, moveable property. The Convention, which entered into force in 2006, creates an international interest that all contracting States must recognize, consisting of "(1) the ability to repossess or sell or lease the equipment in case of default; and (2) the holding of a transparent finance priority in the equipment."¹⁷⁸ To provide notice of security interests, it also provides for an electronic register. ¹⁷⁹ The Convention itself has been described as a "broad umbrella provision that provides the general principles" since it is given specific (sectoral) application by four additional protocols, addressing in turn aircraft equipment, railway rolling stock, space assets, and mining, agricultural, and construction equipment. ¹⁸¹

^{175.} See Roy Goode, The Cape Town Convention on International Interests in Mobile Equipment: a Driving Force for International Asset-Based Financing, 7 UNIFORM L. REV. 3 (2002), available at https://www.unidroit.org/english/publications/review/articles/2002-1-goode-e.pdf (last visited Apr. 10, 2022).

^{176.} See Sandeep Gopalan, Securing Mobile Assets: The Cape Town Convention and Its Aircraft Protocol, 29 N.C. J. INT'L L. & COM. REG. 59, 61-63 (2003).

^{177.} See UNIDROIT, Convention on International Interests in Mobile Equipment, Nov. 16, 2001, 2307 U.N.T.S. 285, available at https://www.unidroit.org/instruments/security-interests/cape-town-convention (last visited Apr. 10, 2022).

^{178.} Sean D. Murphy (ed.), Cape Town Convention on Financing of High-Value, Mobile Equipment, 98 Am. J. INT'L L. 852, 853 (2004).

^{179.} The register is online at https://www.internationalregistry.aero/ir-web/ (last visited Mar. 20, 2022).

^{180.} See Gopalan, supra note 176, at 69-70.

^{181.} Protocol on the Matters Specific to Aircraft Equipment, Nov. 16, 2001; Protocol to the Convention on International Interests in Mobile Equipment on Matters Specific to Railway Rolling Stock, Feb. 23, 2007; Protocol to the Convention on International Interests in Mobile Equipment on Matters Specific to Space Assets, Mar. 9, 2012; Protocol to the Convention on International Interests in Mobile Equipment on Matters Specific to Mining, Agricultural, and Construction Equipment, Nov. 22, 2019 [hereinafter "MAC Protocol"]. The texts of these protocols are available at https://www.unidroit.org/instruments/security-interests/. The United States signed the MAC Protocol in 2019.

F. Financial Securities

In today's computerized securities markets, transactions typically occur in large volumes and at great speed, frequently across national Because different legal systems have different ways of classifying the rights that come with such transfers, uniform rules regarding the perfection, priority, and other effects of transfers became important. The 2006 Hague Convention on the Law Applicable to Certain Rights in Respect of Securities Held with an Intermediary 182 was "designed to apply in relation to all securities held with an intermediary, independent of how the rights resulting from a credit of securities to a securities account are classified by any legal system." 183 It has been described as a "pure conflict of laws convention [that] does not impose any changes on existing or future substantive law."184 It applies to any situation involving intermediary-held instruments or assets that are financial in nature, apart from cash, and it creates a uniform conflict of laws regime establishing a primary rule for determining the law applicable to those securities, fallback rules in the event that the applicable law is not determined by the primary rule, and factors to be disregarded in determining the applicable law. 185

UNIDROIT has also adopted an instrument focused on financial securities: the Convention on Substantive Rules for Intermediated Securities. 186 The stated goal of that instrument is "to promote internal soundness and cross-border system compatibility by providing the basic legal framework for the modern intermediated securities holding

^{182.} Convention on the Law Applicable to Certain Rights in Respect of Securities held with an Intermediary, Jul. 5, 2006, available at https://www.hcch.net/en/instruments/conventions/full-text/?cid=72 (last visited Mar. 20, 2022) [hereinafter "Hague Securities Convention"]. The United States ratified the Convention in 2016. See S. Treaty Doc. No. 112-6.

^{183.} ROY GOODE, HIDEKI KANDA & KARL KREUZER, HAGUE SECURITIES CONVENTION – EXPLANATORY REPORT 11 (2nd ed. 2017), *available at* https://assets.hcch.net/docs/d1513ec4-0c72-483b-8706-85d2719c11c5.pdf (last visited Apr. 10, 2022).

^{184.} Id. at 21.

^{185.} Hague Securities Convention, supra note 182 at arts. 4-6.

^{186.} Convention on Substantive Rules for Intermediated Securities, Oct. 9, 2009, available at https://www.unidroit.org/instruments/capital-markets/geneva-convention (last visited Mar. 20, 2022). The Convention is not yet in force. See Status of the UNIDROIT Convention on Substantive Rules for Intermediated Securities, UNIDROIT, available at https://www.unidroit.org/instruments/capital-markets/geneva-convention/status/ (last visited Apr. 10, 2022).

system."¹⁸⁷ It describes, among other things, the rights of a securities account holder, the legal framework for acquisition and disposition of securities, priority among competing interests, loss sharing in case of insolvency of the intermediary, and obligations and liability of intermediaries.¹⁸⁸

G. Cross-Border Insolvency

Cross-border insolvencies present similarly difficult challenges given substantive and procedural differences in national law. UNCITRAL's Working Group V has adopted a number of insolvency-focused instruments, including the 1997 Model Law on Cross-Border Insolvency, designed to "assist States to equip their insolvency laws with a modern, harmonized and fair framework to address more effectively instances of cross-border proceedings concerning debtors experiencing severe financial distress or insolvency." ¹⁸⁹ It focuses on several PIL elements in foreign proceedings, cooperation among the courts of States where a debtor's assets are located, and coordination of concurrent proceedings. To date, legislation based on this model law has been adopted in 53 jurisdictions, including the United States.

In 2018, Working Group V adopted the Model Law on Recognition and Enforcement of Insolvency-Related Judgments, aimed at creating a "harmonized procedure for recognition and enforcement of insolvency-related judgments." ¹⁹¹ In early 2021, UNCITRAL published a Digest of

^{187.} Background to the 2009 Geneva Convention, UNIDROIT, available at https://www.unidroit.org/instruments/capital-markets/geneva-convention/overview/ (last visited Apr. 10, 2022).

^{188.} See Convention on Substantive Rules for Intermediated Securities, supra note 186, at ch. 2 and arts. 11-13, 19, 26, and 28.

^{189.} See UNCITRAL's Model Law on Cross-Border Insolvency (1997) and its Guide to Enactment and Interpretation (2013), available at https://uncitral.un.org/en/texts/insolvency/modellaw/cross-border_insolvency (last visited Apr. 10, 2022).

^{190.} See Status: UNCITRAL Model Law on Cross-Border Insolvency (1997), UNCITRAL, available at https://uncitral.un.org/en/texts/insolvency/modellaw/cross-border_insolvency/status (last visited Mar. 20, 2022). In 2015, for example, OHADA (which includes 17 Member States) adopted the Acte uniforme portant organisation des procédures collectives d'apurement du passif, the text of which is available (in French) at https://www.droit-afrique.com/uploads/OHADA-Acte-uniforme-2015-Procedures-collectives.pdf. The United States adopted legislation based on the model in the Bankruptcy Abuse Prevention and Consumer Protection Act of 2005 (2005 Act), codified in Chapter 15 of the U.S. Bankruptcy Code.

^{191.} UNCITRAL Model Law on Recognition and Enforcement of Insolvency-Related Judgments (2018), UNCITRAL, available at

Case Law on the Model Law for Cross Border Insolvency, which examines how the model law has been applied in jurisdictions that have adopted it.¹⁹² The Working Group has also drafted a Model Law on Enterprise Group Insolvency, whose purpose is "to provide effective mechanisms to address cases of insolvency affecting the members of an enterprise group."¹⁹³

Additional examples of harmonized insolvency law include EU Regulation 2015/848,¹⁹⁴ which is directly applicable in all EU member States (except Denmark) and requires mandatory recognition of other EU States' insolvency proceedings.¹⁹⁵ It also requires the establishment of insolvency registers, in which the information concerning insolvency proceedings is "published as soon as possible after the opening of such proceedings," and addresses applicable law and jurisdiction, primary and secondary insolvency proceedings, insolvency proceedings for two or more members of a group of companies, and data protection for parties involved.

Outside of the intergovernmental organizations that have worked on cross-border insolvency, there are other, judicially driven efforts to encourage coordination and cooperation in cross-border insolvencies and restructurings. For example, judges from a number of jurisdictions around the world formed the Judicial Insolvency Network ("JIN") in 2016. JIN "serves as a platform for sustained and continuous engagement for the furtherance of [...] judicial thought leadership, best practices, and communication and cooperation." The network issued the Guidelines for Communication and Cooperation between Courts in Cross-Border Insolvency Matters, whose "overarching aim [...] is the preservation of

https://uncitral.un.org/en/texts/insolvency/modellaw/mlij (last visited Apr. 11, 2022); see also UNCITRAL Legislative Guide on Insolvency Law (rev. ed. 2019), UNCITRAL, available at https://uncitral.un.org/en/texts/insolvency/legislativeguides/insolvency_law (last visited Apr. 11, 2022).

^{192.} See UN COMMISSION ON INTERNATIONAL TRADE LAW, DIGEST OF CASE LAW ON THE UNCITRAL MODEL LAW ON CROSS-BORDER INSOLVENCY (2021), available at https://uncitral.un.org/sites/uncitral.un.org/files/media-documents/uncitral/en/20-06293 uncitral mlcbi digest_e.pdf (last visited Apr. 11, 2022).

^{193.} UN COMMISSION ON INTERNATIONAL TRADE LAW, MODEL LAW ON ENTERPRISE GROUP INSOLVENCY WITH GUIDE TO ENACTMENT, U.N. Sales No. E.20.V.3 (2020).

^{194.} Regulation 2015/848 of the European Parliament and of the Council of 20 May 2015 on insolvency proceedings, 2015 O.J. (L 141) 19 (EU).

^{195.} See id. at preamble ¶ 65 and arts. 19-20.

^{196.} Id. at arts. 24-27.

^{197.} See About Us, JUDICIAL INSOLVENCY NETWORK, available at https://jinglobal.org/about-us.html (last visited Aug. 4, 2022).

enterprise value and the reduction of legal costs." ¹⁹⁸ The Guidelines have been adopted by sixteen courts and / or jurisdictions around the world. ¹⁹⁹

H. Consumer Protection

Harmonization of domestic consumer protection laws has begun to receive serious attention in recent years, partly because of the efforts of the International Consumer Protection and Enforcement Network ("ICPEN").²⁰⁰ In 2015, the UN General Assembly adopted a revision of its UN Guidelines for Consumer Protection,²⁰¹ which provide a comprehensive overview of what consumer protection legislation should cover, including institutional enforcement and systems of redress. The 2015 revision includes sections on privacy, e-commerce, and financial services, added "as an explicit response to the irruption of the digital economy and to the recent financial crisis."²⁰² Additional sections address, among others, disputes, and redress; the energy, public utilities, and tourism sectors; and international cooperation.

For its part, the EU has adopted a robust legal and regulatory framework for protecting consumers.²⁰³ Expressed primarily through directives establishing "minimum harmonization levels," this enforcement framework is designed to protect consumers and provide for mutual assistance between member State enforcement authorities when

^{198.} See JIN Guidelines, JUDICIAL INSOLVENCY NETWORK, available at https://jinglobal.org/jin-guidelines.html#list-1 (last visited Aug. 4, 2022).

^{199.} See id. The courts and / or jurisdictions that have adopted these Guidelines are the United States Bankruptcy Court for the District of Delaware, the Supreme Court of Singapore, the United States Bankruptcy Court for the Southern District of New York, the Supreme Court of Bermuda, the Chancery Division of England & Wales, the Eastern Caribbean Supreme Court, the Supreme Court of New South Wales, the United States Bankruptcy Court for the Southern District of Florida, the Seoul Bankruptcy Court, the Grand Court of the Cayman Islands, the United States Bankruptcy Court for the Southern District of Texas, the Commercial List of Users' Committee of the Superior Court of Justice – Ontario (Commercial List), the District Court Midden-Nederland (the Netherlands), the Federal Court of Australia, the Supreme Court of British Columbia, and Brazil.

^{200.} See generally What We Do, INT'L CONSUMER PROTECTION AND ENFORCEMENT NETWORK, available at https://icpen.org/what-we-do (last visited Apr. 11, 2022).

^{201.} See United Nations Guidelines for Consumer Protection, UNCTAD, available at https://unctad.org/topic/competition-and-consumer-protection/un-guidelines-on-consumer-protection (last visited Apr. 11, 2022).

^{202.} Id.

^{203.} See generally Jana Valant, Consumer Protection in the EU: Policy Overview 5 (2015), available at https://www.europarl.europa.eu/RegData/etudes/IDAN/2015/565904/EPRS_IDA(2015)565 904_EN.pdf (last visited Apr. 11, 2022).

one requests information from others regarding actual or potential intra-EU consumer protection violations.²⁰⁴

Of particular importance is the aforementioned EU General Data Protection Regulation ("GDPR"), which has been described as the "toughest privacy and security law in the world."²⁰⁵ It applies broadly to any organization, whether or not EU-based, that targets or collects data on people in the EU, and it covers data collection and protection rules, accountability and compliance rules, data security, data processing rules, and privacy. Different types of penalties can be applied to violators, depending on the type of violation committed, and they can be substantial.²⁰⁶

For its part, the OAS has dedicated efforts toward harmonizing consumer protection law through the seventh Inter-American Specialized Conference on Private International Law ("CIDIP VII"). 207 Within this process, three proposals were made to advance consumer protection as a way of facilitating cross-border trade in goods and services while lowering transaction costs for consumers: Brazil has advocated a draft convention to address choice of law. Canada has proposed draft model laws on jurisdiction and choice-of-law rules, and the United States has submitted a draft Legislative Guide on Consumer Dispute Settlement and Redress. The proposals represent different approaches to resolving the issues. The Brazilian draft treaty would validate party choice-of-law determinations only where the chosen law is the "most favorable to the consumer." One difficulty with this approach, however, is in establishing the criteria by which that determination can be made with some measure of consistency and objectivity. Would it mean the law with longer filing periods, or the law allowing less costly consumer proceedings or higher

^{204.} Commission Regulation 2006/2004 of Oct. 27, 2004, on cooperation between national authorities responsible for the enforcement of consumer protection laws, art. 6, 2004 O.J (L364) 1 (EC).

^{205.} GDPR, supra note 174. See also What is GDPR, The EU's new data protection law?, GDPR.EU, available at https://gdpr.eu/what-is-gdpr/ (last visited Apr. 20, 2022).

^{206.} GDPR, *supra* note 174, at arts. 83-84. Administrative fines, for example, vary from up to ϵ 10 million or 2% of the violator's global annual revenue (whichever is higher), to up to ϵ 20 million or 4% of global annual revenue (whichever is higher).

^{207.} For an overview of CIDIP VII, see Department of International Law, instruments by conference - CIDIP VII, O.A.S., available at http://www.oas.org/en/sla/dil/private_international_law_conferences_Cidip_VII.asp (last visited Apr. 11, 2022). For a history of the CIDIP process more generally, see Department of International Law - the History of the CIDIP Process, O.A.S., available at http://www.oas.org/en/sla/dil/private_international_law_history_cidip_process.asp (last visited Apr. 11, 2022).

potential damage awards? Attempts to clarify these issues and explore possible alternatives are ongoing.

The U.S. proposal suggests three "model laws" for possible adoption by OAS member States: one for an agreed procedure for resolving "small claims" in cross-border consumer contracts, a second on government redress mechanisms including authority for domestic consumer protection authorities to cooperate with their foreign counterparts in cross-border disputes and enforcement of judgments, and a third for adoption of model rules for electronic arbitration of crossborder consumer claims. The United States has expressed the view that resolving cross-border consumer claims through traditional court mechanisms is too expensive and not practical, given the small value of most consumer complaints, and the U.S. proposals therefore focus on alternate effective redress. To be successful, however, such an approach would depend on rapid, effective, and consistent adoption of the model law, rules, and mechanisms in the domestic laws of a substantial number of countries in the hemisphere – obviously, a more arduous path than ratification of a single convention.

The OAS has also developed a proposed (and important) Inter-American Model Law on Access to Public Information for consideration by member States.²⁰⁸

I. Non-Contractual Obligations

Although not strictly within our working definition of PIL, we cannot conclude without noting efforts to deal with many of the same issues in the field of non-contractual obligations (generally, what a U.S. lawyer would think of as tort law). Within the EU, the Rome II Regulation aims at harmonizing the rules for determining the law applicable when the issues arise in civil and commercial matters.²⁰⁹

The basic principle is *lex loci delicti comissi*. Thus, article 4 of the Regulation provides that, as a general rule,

the law applicable to a non-contractual obligation arising out of a tort/delict shall be the law of the country in which the damage occurs irrespective of the country in which the event giving rise to the damage

^{208.} Model Law on Access to Public Information, O.A.S., available at http://www.oas.org/en/sla/dil/access_to_information_model_law.asp (last visited Apr. 11, 2022).

^{209.} See Rome II, supra note 59, at arts. 1-2.

occurred and irrespective of the country or countries in which the indirect consequences of that event occur.²¹⁰

The doctrine of "close connections" also applies where it is "clear from all the circumstances of the case that the tort/delict is manifestly more closely connected with a country" other than the country that should normally apply under the general rule or its immediate exception; the law of the country with those close connections thus applies.²¹¹

The same overall approach is reflected in the 1971 Hague Convention on the Law Applicable to Traffic Accidents²¹² and the 1973 Hague Convention on the Law Applicable to Products Liability (the latter addresses choice of law in cross-border cases where liability arises due to defective products).²¹³ Finding an approach to cross-border civil liability for environmental damage has been on the agenda of the Hague Conference since 1993, and in 2010 the Permanent Bureau invited the Council on General Affairs and Policy of the Conference to revisit the question.²¹⁴

VII. PARTICULAR CHALLENGES FOR THE U.S. LEGAL SYSTEM

Most PIL issues arise from the fact that different national legal systems around the world address (and resolve) similar problems in different ways. For the United States, two particular facts complicate its engagement with PIL in the international context: (1) the federal structure

^{210.} *Id.* at art. 4(1). Under art. 4(2), "where the person claimed to be liable and the person sustaining damage both have their habitual residence in the same country at the time when the damage occurs, the law of that country shall apply."

^{211.} *Id.* at art. 4(3). The "national override" is found in Article 16, which provides that the Regulation shall not restrict the application of a forum's mandatory rules, irrespective of the law applicable to the non-contractual obligation.

^{212.} Convention on the Law Applicable to Traffic Accidents, May 4, 1971, available at https://www.hcch.net/en/instruments/conventions/full-text/?cid=81 (last visited Mar. 20, 2022).

^{213.} Convention on the Law Applicable to Products Liability, Oct. 2, 1973, available at https://www.hcch.net/en/instruments/conventions/full-text/?cid=84 (last visited Mar. 20, 2022). For a list of contracting parties, see Status Table – Convention of 2 October 1973 on the Law Applicable to Products Liability, HCCH, available at https://www.hcch.net/en/instruments/conventions/status-table/?cid=84 (last visited Mar. 20, 2022).

^{214.} See Christophe Bernasconi, Civil Liability Resulting from Transfrontier Environmental Damage: A Case for the Hague Conference?, 12 HAGUE Y.B. OF INT'L L. 1 (2000); Should the Hague Conference Revisit the Scope and Nature of Possible Work in the Field of Civil Liability for Environmental Damage?, HCCH, available at https://assets.hcch.net/upload/wop/genaff2010pd12e.pdf (last visited June 6, 2022).

of its government, in which the authority of the central government is limited and many PIL issues fall within the competence of the constituent states, and (2) the hybrid nature of its legal system, in which some PIL issues are matters of common law rather than statute.

The United States is not, of course, the only country with a federal system, but it does have more subnational components with substantial independent legislative authority than any other. Under the U.S. Constitution, the federal government has limited (delegated) authority to enact substantive law; each of the constituent States retains authority that has not been granted to the federal government. The judicial system is similarly bifurcated: the jurisdiction of the federal courts is circumscribed, and each state (and territory) maintains its own system of courts. The relationship between the two is complicated: in some areas relevant to PIL, a case may be properly pursued in the federal courts, but state law will apply, while in others the reverse is true: the state courts may be empowered to hear the case but must decide it under federal law.

In both federal and state courts, the "law" is a mixture of legislation (duly enacted statutes) and common law (judicial decisions governed by the principle of *stare decisis*). Some areas are substantially codified, others much less so. For instance, the United States lacks a comprehensive national commercial code. The law of contracts is generally a matter of common law, although some areas have been standardized through adoption of a "uniform law" by the states. Similarly, there are no uniform "conflicts of law" rules of general applicability at the national level: while some states have enacted some relevant provisions, this area remains largely a matter of common (decisional) law. Recognition and enforcement of foreign judgments remains (mostly) a matter of state law, although with a fairly high degree of uniformity due to adoption of uniform laws; foreign judgments are not

^{215.} On the challenges of federalism generally, see Alex Mills, Federalism in the European Union and the United States: Subsidiarity, Private Law, and the Conflict of Laws, 32 U. Pa. J. INT'L L. 369 (2010). For background on the U.S. approach to PIL, see Peter Pfund, Contributing to Progressive Development of Private International Law: The International Process and the United States Approach, 249 RECUEIL DES COURS 9 (1994), available at http://dx.doi.org/10.1163/1875-8096_pplrdc_A9789041102607_01 (last visited Mar. 20, 2022).

^{216.} See generally Commercial Law Research Guide – Uniform Commercial Code, GEO. L., available at https://guides.ll.georgetown.edu/commerciallaw/ucc (last visited Apr. 8, 2022). The Uniform Commercial Code, a product of two private entities (the Uniform Law Commission and the American Law Institute), has not been adopted uniformly in every U.S. jurisdiction; neither is it truly comprehensive.

^{217.} The American Law Institute is currently pursuing a third "RESTATEMENT OF THE LAW" in this area.

entitled to the constitutionally-mandated "full faith and credit" as accorded to those of sister "states" of the Union.

Some areas fall primarily within federal competence, for example bankruptcy and intellectual property. Not a few are governed by both federal and state law, such as privacy, data protection, and e-commerce, to mention only three. Others, such as family law, remain primarily matters of state law.

In a few discrete areas, harmonization occurs at the federal level by virtue of the jurisdictional reach of the federal courts. For instance, most transnational cases involving civil and commercial matters are brought in federal (as opposed to state) courts; in consequence, articulation of the rules regarding the interpretation and application of foreign law in the U.S. legal system largely occurs at the federal level. The same is largely true with respect to issues of international judicial assistance (through application, for example, of the Hague Service and Evidence Conventions).

One important point is often unnoticed or misunderstood by non-U.S. lawyers: to the extent that the international community addresses PIL issues by treaty or convention, U.S. ratification may raise "federalism" issues. Under Art. VI cl. 2 of the U.S. Constitution, duly ratified treaties become part of the "supreme Law of the Land," displacing contrary state law. Thus, ratification of PIL treaties inescapably "federalizes" the issues – even in areas that have traditionally been the subject of state law. For example, while family law remains primarily within state competence, U.S. adherence to various Hague Conventions has required the federal government to assume an important role that it might otherwise not have had.

The significance of this fact is often overlooked. Wholly apart from the substance, U.S. ratification of PIL treaties can be challenging since states may not welcome federal "intrusion" into areas traditionally falling within state competence. At the same time, the federal government must be confident that the United States is capable of complying fully with its international obligations. In some cases, creative solutions must be found to these mutually valid but sometimes competing concerns.²¹⁸

^{218.} See generally Paul R. Dubinsky, Private Law Treaties and Federalism: Can the United States Lead? 54 Tex. Int'l L. J. 39 (2018); Charlotte Ku, William H. Henning, David P. Stewart & Paul F. Diehl, Even Some International Law Is Local: Implementation of Treaties through Subnational Mechanisms, 60 VA. J. Int'l L. 101 (2019).

VIII. CONCLUSION

Some may conclude from this survey that private international law cannot properly be considered a cohesive "field" of law (either substantive or procedural) and is best understood more as a collection of disparate (if related) problems arising in the broad context of cross-border transactions, together with an array of tools, methods or principles for resolving those problems.²¹⁹ To some extent, such a criticism is valid – even if it could be made of other areas of contemporary concern (for example, is "privacy" a cohesive field?). In any event, it may well be one reason that PIL is rarely taught as a discrete course in U.S. law schools. Even if accurate, that view does not diminish the growing relevance and importance of the field.

As we hope this survey has demonstrated, international practitioners and students alike must be alert not only to the particular problems that can arise in the "transnational" or "cross-border" context but also to the variety of relevant mechanisms and approaches – including both the increasing efforts at substantive harmonization and the expanding architecture of engagement and procedural cooperation – that PIL offers for their resolution.²²⁰ Acquainting students and practitioners to the breadth and complexity of (and developments in) the field is the main reason for this article.²²¹

In the end, of course, the objective of the PIL project broadly considered – the ultimate purpose or justification for the wide-ranging efforts described above – must be to promote justice, efficiency, and

^{219.} See John Linarelli, Toward A Political Theory for Private International Law, 26 DUKE J. COMP. & INT'L L. 299 (2016); Alex Mills, The Identities of Private International Law: Lessons from the U.S. and EU Revolutions, 23 DUKE J. COMP. & INT'L L. 445, 474 (2013) (Alex Mills has described PIL as "a form of 'secondary law' (in H.L.A. Hart's sense) which serves the international, federal or regional function of ordering the distribution of regulatory authority between legal orders, accepting and reinforcing their pluralism.").

^{220.} Verónica Ruiz Abou-Nigm emphasizes the term "cosmopolitan integration." She writes: "The raison d'être of private international law is the plurality of international orders; dealing with this plurality is the quintessential function of private international law." See Verónica Ruiz Abou-Nigm, Bridging and Balancing: Diversity and Integration in Private International Law, in DIVERSITY AND INTEGRATION IN PRIVATE INTERNATIONAL LAW 362, 386 (Verónica Ruiz Abou-Nigm & María Blanca Noodt Taquela eds., 2019).

^{221.} Several sources can be helpful for those interested in monitoring PIL developments online, including: "Conflict of Laws .net: Views and News in Private International Law" at https://conflictoflaws.net; "Letters Blogatory: the blog of international judicial assistance," at https://lettersblogatory.com/; the European Association of Private International Law at https://eapil.org; and the European Group of Private International Law at https://gedipegpil.eu/en/.

economic growth and development around the world.²²² Those are the standards by which the efforts described above, in all the different venues, must ultimately be judged.

^{222.} See David P. Stewart, Private International Law, the Rule of Law, and Economic Development, 56 VILL. L. REV. 607 (2011). For a recent examination of how private international law can contribute to international development, see The Private Side of Transforming our World – UN Sustainable Development Goals 2030 and the Role of Private International Law (Ralf Michaels, Verónica Ruiz Abou-Nigm & Hans van Loon eds., 2021).

A PRECAUTIONARY, PREVENTATIVE FRAMEWORK FOR OUTER SPACE RESOURCES: APPLYING THE ANTARCTIC TREATY SYSTEM'S MADRID PROTOCOL TO THE UNREGULATED FRONTIER OF "NEWSPACE"

Nelson Falkenburg

INTRODUCTION

Imagine you step out of the Martian research station at dawn and take in the view. The morning is bitter cold, as it always is, and the thin atmosphere is thick with smog. Nearby, mineral waste is piled in gigantic heaps next to deep craters – officials say the community's water may be polluted from leaching. Across the horizon, which is eerily flat, you can see into the expanse of space, and rising in the distance, the pale sun – its light barely reaching the Martian surface. As a SpaceCorp Cargo ship, ferrying precious minerals to Titan, readies for blastoff at the launch site, you ask yourself a question that has been on your mind lately – how did we, humanity, get here? How did we arrive at a point where the Martian atmosphere, surface, and resources are all polluted? You wonder if it was inevitable, or if it could have turned out differently.

We are at a pivotal point in our exploration and exploitation of outer space. Private space companies are proliferating, with states enacting unilateral legislation to encourage growth. This approach is leading to a regulatory "race to the bottom," with the effect of an unclear and underregulated approach to space resource exploration and use. The lack of clarity and competition for space resources, in turn, could quickly spiral into conflict. Considering this trajectory, states must pivot to a multilateral approach to regulating space resource exploration and use. As a corollary to the Outer Space Treaty ("OST"), the Antarctic Treaty System's Madrid Protocol offers the best principles and framework for an approach to space resources that is precautionary, de-escalates potential conflict in space, and prevents damage to the extraterrestrial environment.

This paper is organized in a series of parts, each one building on the next, to arrive at a proposal for a precautionary, preventative approach to outer space resource exploration and use. Part I will provide the context of our current state, with a discussion of the emergence of NewSpace and the need for a "spatial fix" for capitalist growth, followed by relevant articles of the Outer Space Treaty, and concluding with potential extraterrestrial environmental impacts of space resource exploration and

use. Part II will discuss the international impact of unilateral space resource policymaking, the ensuing regulatory "race to the bottom," and the increasing potential for conflict. Part III will discuss an alternative, multilateral framework for space resource use based on the preventive and precautionary approach of the Antarctic Treaty's Madrid Protocol, including potential challenges to such a framework. The topics of sovereignty and resource-sharing between states are critical issues related to this topic but are beyond the scope of this paper and therefore will not be considered

PART I – NEWSPACE AND THE IMPLICATIONS FOR EXTRATERRESTRIAL ENVIRONMENTAL IMPACTS

NEWSPACE AND THE "SPATIAL FIX"

Humankind has entered a new era in outer space exploration — "NewSpace." Also known as "New Space," these terms refer to the emergence of private entities directly operating in outer space and the increasing commercialization of the outer space sector. In May of 2012, SpaceX launched its first rocket, Cargo Dragon, to ferry supplies to the International Space Station ("ISS") on behalf of NASA, ushering in the era of NewSpace. Private firms in the space industry are nothing new, as Bocing, Lockheed Martin, and Airbus have acted as contractors for decades to build rocket components or satellites. But in the last decade, the role of private companies has shifted, as they are now directly operating in outer space with their own rockets and systems.

Since the first SpaceX launch, and the general success of reusable rocketry it exemplified, the private space sector is booming. According to news reports, the private space sector is a multi-billion-dollar industry.³ Some articles claim the riches of outer space are significant enough that

^{1.} See Steve Simon, A cause for concern: Developing regulatory competitions in NewSpace, 187 ACTA ASTRONAUTICA 212, 212-13 (2021).

^{2.} Elizabeth Howell, SpaceX's Dragon: First Private Spacecraft to Reach Space Station, SPACE.COM (Aug. 10, 2020), available at https://www.space.com/18852-spacex-dragon.html (last visited Mar. 25, 2022).

^{3.} See Michael Sheetz, Investment in space companies put at record \$8.9 Billion in 2020 despite Covid, CNBC (Jan. 25, 2021), available at https://www.cnbc.com/2021/01/25/investing-in-space-companies-hits-record-8point9-billion-in-2020-report.html (last visited Mar. 25, 2022).

a single asteroid could make everyone on Earth a billionaire,⁴ signaling the vast amounts of wealth in space resources, while grossly misunderstanding the realities of markets and wealth generation. Led most visibly by a trio of billionaires, Elon Musk (SpaceX), Jeff Bezos (Blue Origin), and Richard Branson (Virgin Galactic), NewSpace has exploded onto the scene with high-profile space tourism missions. Blue Origin launched Star Trek star William Shatner into orbit on one of its rockets,⁵ and SpaceX sent four civilians into space and filmed a Netflix documentary.⁶ Beyond space tourism, private companies are expanding into satellite constellations and space stations. SpaceX's "Starlink" constellation will eventually include 42,000 satellites,⁷ and Blue Origin recently announced its plan to build a space business park in outer space called the "Orbital Reef," a private-sector equivalent of the ISS.⁸

Despite the recent growth in the space sector, private companies are still heavily reliant on state funding. A particularly noteworthy example is NASA's choice of SpaceX for a \$2.9 billion contract to design and develop a lunar lander for the Artemis missions. Following the contract award, Blue Origin filed a lawsuit against NASA alleging the award was unfairly granted, an argument the federal court recently rejected. NASA's Commercial Lunar Payload Services (CLPS) Program has provided a much-needed boost for several established companies and

^{4.} See Joao Piexe, The golden asteroid that could make everyone on Earth a billionaire, MINING.COM (June 26, 2019), available at https://www.mining.com/web/the-golden-asteroid-that-could-make-everyone-on-earth-a-billionaire/ (last visited Mar. 25, 2022).

^{5.} Joe Hernandez, William Shatner boldly went into space for real. Here's what he saw, NPR (Oct. 13, 2021), available at https://www.npr.org/2021/10/13/1045377132/william-shatner-star-trek-captain-kirk-blue-origin-space-flight (last visited Mar. 25, 2022).

^{6.} Rebecca Heilweil, *Streaming space tourism is the new reality TV*, Vox Media, LLC (Aug. 4, 2021), *available at* http://www.vox.com/recode/22610315/netflix-spacex-streaming-space-tourism (last visited Mar. 25, 2022).

^{7. .} Keith Cooper, Astronomers Raise Concerns over SpaceX's Starlink, 33 Physics World 10, 10 (2020).

^{8.} Blue Origin and Sierra Space Developing Commercial Space Station, BLUE ORIGIN (Oct. 25, 2021), available at https://www.blueorigin.com/news/orbital-reefcommercial-space-station (last visited Mar. 25, 2022).

^{9.} Joey Roulette, *Blue Origin Loses Legal Fight Over SpaceX's NASA Moon Contract*, N.Y. TIMES (Nov. 4, 2021), *available at* https://www.nytimes.com/2021/11/04/science/blue-origin-nasa-spacex-moon-contract.html (last visited Mar. 22, 2022).

start-ups in the space mining sector.¹⁰ NASA has selected 14 companies for contracts under CLPS, including Blue Origin and SpaceX, but also smaller startups like Moon Express, Deep Space Systems, and Firefly Aerospace. The goal is to develop technologies that will deliver payloads for NASA and land on the Moon's surface under the Artemis missions.¹¹

The emergence of NewSpace, led by billionaires, is a predictable next step in capitalism's evolutionary development. Private companies launching into outer space are seeking what Marxist economic geographer David Harvey calls a "spatial fix" to capitalism.¹² Harvey defines the spatial fix "to describe capitalism's insatiable drive to resolve its inner crisis tendencies by geographical expansion and geographical restructuring."¹³ The concept posits that capitalism reaches physical and geographic limits to growth, which require a "spatial fix" to capitalize on a new market and generate wealth.¹⁴ The colonization of the Global South and the rise of the internet and social media are both examples of the "spatial fix." Now, as private companies have overexploited the resources of Earth in pursuit of ever-increasing profits, and the "externalities" of climate change – drought, heat waves, fires, and increasingly devastating storms – are coming home to roost, private

^{10.} See generally Chabeli Carrazana, Layoffs and Stalled Projects Plagued Space Start-up Moon Express, Then NASA Stepped In, ORLANDO SENTINEL (Dec. 9, 2018), available at https://www.orlandosentinel.com/space/os-bz-moon-express-update-20181114-story.html (last visited Mar. 22, 2022); Brian Dunbar, Commercial Lunar Payload Services Overview, NASA (Nov. 18, 2019), available at http://www.nasa.gov/content/commercial-lunar-payload-services-overview (last visited Mar. 22, 2022) (noting that "NASA's Commercial Lunar Payload Services (CLPS) initiative allows rapid acquisition of lunar delivery services from American companies for payloads that advance capabilities for science, exploration or commercial development of the Moon.").

^{11.} Carrazana, supra note 10; Dunbar, supra note 10.

^{12.} Victor L. Shammas & Tomas B. Holen, One giant leap for capitalistkind: private enterprise in outer space, 10 PALGRAVE COMM. 1, 1-9 (2019).

^{13.} DAVID HARVEY, GLOBALIZATION AND THE 'SPATIAL FIX, 24, (geographische revue ed., 2001) (using the term "fix" to refer to the way a person with a drug addiction requires a "fix," meaning any relief is temporary.).

^{14. .} Id. at 25–26 ("The primary result of these enquiries was to show that (a) capitalism could not survive without being geographically expansionary (and perpetually seeking out 'spatial fixes' for its problems), (b) that major innovations in transport and communication technologies were necessary conditions for that expansion to occur (hence the emphasis in capitalism's evolution on technologies that facilitated speed up and the progressive diminution of spatial barriers to movement of commodities, people, information and ideas over space)").

companies must look elsewhere for profits, beyond our globe. Jeff Bezos, at the unveiling of Blue Origin's lunar lander concept, posited a future where people live on Earth and extract resources from other planets saying, "[t]he reason we go to space, in my view, is to save the Earth." In other words, NewSpace companies are finding their "spatial fix" in outer space.

THE OUTER SPACE TREATY

The current legal framework for regulating private industry's expansion into outer space is the "Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies," also known as the "Outer Space Treaty," or simply the "OST." The OST is a constitutional treaty that articulates a series of principles for the governance of outer space. These principles are borrowed in large part from the Antarctic Treaty System, which was negotiated in 1959, shortly before parties met to begin drafting the OST. The relationship between the two treaties will be discussed in more detail in Part III and will form the basis for a new proposal to regulate outer space resource exploration and use. Initiated shortly after the launch of the Soviet satellite Sputnik, the OST was negotiated during the Space Race between the USSR and the United States. 18

The UN General Assembly adopted the OST in 1966 and it opened for signature in 1967, prior to the US landing astronauts on the Moon. ¹⁹ Following adoption of the OST, the UN General Assembly adopted four other clarifying agreements regarding the Moon, ²⁰ liability, ²¹ astronaut

^{15.} Eric Lutz, Jeff Bezos Wants to Move Industry Offworld to 'Save the Earth,' VANITY FAIR (June 7, 2019), available at https://www.vanityfair.com/news/2019/06/jeff-bezos-wants-to-move-industry-to-space-to-save-the-earth (last visited Mar. 22, 2022).

^{16.} Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies, *opened for signature* Jan. 27, 1967, 18 U.S.T. 2410, 610 U.N.T.S. 205 [hereinafter Outer Space Treaty].

^{17.} Paul G. Dembling & Daniel M. Arons, *The Evolution of the Outer Space Treaty*, 33 J. AIR L. & COM. 419, 422-23 (1967).

^{18. .} See Space Race Timeline, ROYAL MUSEUMS GREENWICH, available at https://www.rmg.co.uk/stories/topics/space-race-timeline (last visited Mar. 23, 2022).

^{19.} Outer Space Treaty, supra note 16.

^{20.} Agreement Governing the Activities of States on the Moon and Other Celestial Bodies, *opened for signature* Dec. 18, 1979, 1363 U.N.T.S. 3 [hereinafter Moon Treaty].

^{21. .} See Convention on the International Liability for Damage Caused by Space Objects, opened for signature Mar. 29, 1972, 24 U.S.T. 2389, 961 U.N.T.S. 187 [hereinafter Space Liability Treaty].

rescue,²² and the registration of objects.²³ All four agreements, apart from the Moon Agreement, achieved widespread adoption. For the purposes of this analysis, however, we will focus solely on the OST. Several provisions of the OST are related to outer space resource use and exploration, as well as extraterrestrial environmental impacts.

Private companies seeking a spatial fix in outer space find both enabling and constraining language in the OST. Article I of the OST enables private companies and Articles II, VI, VII, and IX constrain them. Article I states that celestial bodies "shall be free for exploration and use by all states without discrimination of any kind."²⁴ Alternatively, Article II states that "Joluter space, including the moon and other celestial bodies, is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means."25 Like most terms in the OST, "exploration" and "use" go undefined, leaving open a wide range of possible interpretations. Several states, in what some scholars consider contravention of Article II of the OST, are going beyond authorizing legislation and developing legal frameworks to allow for private company resource exploration and use under Article I of the OST. By employing the least restrictive reading of OST Article II, the United States is leading this regulatory "race to the bottom" through a series of unilateral domestic laws and executive orders. This concept will be further explored in Part II.

Articles VI and VII constrain private actors by placing them under the authority of the launching state and including liability provisions. Article VI places the responsibility of non-governmental actors in outer space under the launching and authorizing state, including a requirement for authorization and supervision by a state party to the treaty. 27

^{22. .} See Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space, opened for signature Apr. 22, 1968, 19 U.S.T. 7570, 672 U.N.T.S. 119 [hereinafter Rescue Treaty].

^{23. .} See Convention on Registration of Objects Launched into Outer Space, opened for signature Jan. 14, 1975, 28 U.S.T. 695, 1023 U.N.T.S. 15 [hereinafter Registration of Objects Treaty].

^{24.} Outer Space Treaty, supra note 16, art. I.

^{25. .} Id. at art. II.

^{26. .} Id. at arts. VI, VII.

^{27. .} Id. at art. VI ("State Parties to the Treaty shall bear international responsibility for national activities in outer space, ... whether such activities are carried on by governmental agencies or by non-governmental entities, and for assuring that national activities are carried out in conformity with the provisions set forth in the present Treaty. The

Article VII expands upon the principle that states bear responsibility for private actors, providing that those states are liable for damage caused by space objects, while including a provision on space debris.²⁸

The authorizing and launching state bears responsibility for non-governmental actors in outer space. The launching state is determined not by the location of a private company's headquarters (which would be challenging in our increasingly globalized world), but by the physical location, or territory, from which a rocket is launched.²⁹ Given the two constraining principles in Articles VI and VII, states have enacted authorizing laws for commercial entities to launch in their territories with some states including regulations regarding space debris and environmental impacts.³⁰

A final relevant article regarding resource extraction and use is Article IX of the OST which is specific to contamination of the Earth and celestial objects.³¹ While some consider this an entry point for the regulation of extraterrestrial environmental impacts, it is too narrowly

activities of non-governmental entities in outer space, including the Moon and other celestial bodies, shall require authorizing and continuing supervision by the appropriate State Party to the Treaty.").

^{28. .} Id. at Art. VII. ("Each State Party to the Treaty that launches or procures the launching of an object into outer space, including the Moon and other celestial bodies, and each State Party from whose territory or facility an object is launched, is internationally liable for damage to another State Party to the Treaty or to its natural or juridical persons by such object or its component parts on the Earth, in air space or in outer space, including the Moon and other celestial bodies.").

^{29. .} Id. at Art. VII.

^{30. .} See Annette Froehlich & Vincent Seffinga, Comparative Analysis of National Space Legislation, in NAT'L SPACE LEGIS.: A COMPAR. & EVALUATIVE ANALYSIS 173-77 (Annette Froehlich & Vincent Seffinga, eds., 2018). (Discussing differing approaches by states towards protection and mitigation of the Earth environment. For example, Australia, France and Belgium require licensees conduct environmental impact assessments or an adequate environmental plan. Several states also set out specific requirements related to space debris mitigation. Finally, states include requirements to limit contamination of celestial bodies. Other extraterrestrial environmental impacts – pollution, waste management, emissions, etc. have only been considered by France in their EIA process.).

^{31.} Outer Space Treaty, *supra* note 16, at Art. IX. (Article IX states that treaty signatories shall "pursue studies of [the Moon and other celestial bodies] . . . so as to avoid their harmful contamination and also adverse changes in the environment of the Earth resulting from the introduction of extraterrestrial matter and, where necessary, shall adopt appropriate measures for this purpose.").

constructed on biological contamination, anthropocentric framing, and Earth-centric language to achieve this goal.³²

The OST delineates a series of enabling and constraining articles for outer space resource exploration and use. Unfortunately, the articles are either silent or vague regarding extraterrestrial environmental impacts, leaving open a wide range of possible interpretations for states to exploit. In the next section, we will explore the current and potential impacts of NewSpace on the extraterrestrial environment.

EXTRATERRESTRIAL ENVIRONMENTAL IMPACTS

The expansion of NewSpace into outer space brings new challenges and new externalities.³³ The exploration and use of outer space will result in increasing amounts of space debris in orbit and the potential for contamination of celestial bodies – two space environment impacts the OST and consequent agreements attempt to address with limited success.³⁴ Regarding space debris, the concern is the "Kessler Syndrome"; debris colliding in orbit, causing a chain reaction of collision and debris, until the orbit is no longer usable.³⁵ The potential for

^{32.} See William R. Kramer, Extraterrestrial environmental impact assessments - A foreseeable prerequisite for wise decisions regarding outer space exploration, research and development, 30 SPACE POL'Y 215, 217 (2014). See also PHILLIPE SANDS, PRINCIPLES OF INT'L ENV'T LAW 383 (1995). ("Moreover, studies and exploration of outer space must avoid 'the harmful contamination and adverse changes in the environment of the earth resulting from the introduction of extraterritorial matter.' Parties are also under an obligation to undertake 'appropriate international consultations' before proceeding with activities or experiments which may cause 'potentially harmful interference' with activities of other state parties. It is evident that the approach of Article IX is directed towards the protection of human beings, rather than the protection of the environment as an end in itself.").

^{33.} Kramer *supra* note 32, at 218. ("While the environmental effects of our extraterrestrial actions may still be relatively insignificant, their cumulative impact will predictably increase with the number and scope of future missions."); *see also* Cheney, et. al., *Planetary Protection in the NewSpace Era: Science and Governance*, 7 FRONT. ASTRON. SPACE SCI. 1, 1 (Nov. 3, 2020).

^{34.} Cheney *supra* note 33, at 2. (Regarding planetary protection, "Planetary protection is perhaps more important as ever as the number of actors and the diversity of their activities increase (sic). Private and non-governmental space activities present a particular challenge given the status of the COSPAR Planetary Protection Policy in international law and the motivations and intentions of some of these new actors."). *Id.* at 6. (regarding debris "Increased lunar activities could replicate Earth's "space debris problem" around the Moon (and later Mars)").

^{35.} Judy Corbett, Micrometeoroids and Orbital Debris (MMOD), NASA (Sep. 17, 2015), available at http://www.nasa.gov/centers/wstf/site tour/remote hypervelocity test laboratory/micromet

contamination of celestial bodies, or the introduction of extraterrestrial contaminants to Earth, is also a concern. Introducing organisms from Earth to celestial bodies could damage any potential life already existing there, irrevocably undermining the search for life.³⁶ These concerns have resulted in the creation of planetary protection principles through the Committee on Space Research (COSPAR).³⁷ Beyond space debris and contamination of celestial bodies is another space environment concern that is not widely discussed in the literature – extraterrestrial environmental impacts.³⁸

The speculative scenario in the introduction attempts to imagine what a future person on Mars may experience in terms of extraterrestrial environmental impacts. Eventually, private companies will have developed the technology to mine minerals and resources (such as helium and water) on asteroids, the Moon, and Mars.³⁹ Some companies

eoroid_and_orbital_debris.html (last visited Mar. 27, 2022); see also Shannon Bugos, Russian ASAT Test Creates Massive Debris, ARMS CONTROL ASS'N (Dec. 2021), available at https://www.armscontrol.org/act/2021-12/news/russian-asat-test-creates-massive-debris (last visited Mar. 27, 2022). (On November 15, 2021, Russia conducted an anti-satellite missile test that succeeded in destroying one of its satellites. The test created a field of over 1,500 pieces of trackable space debris and resulted in the astronauts on the ISS sheltering in escape pods.).

^{36.} See generally Kramer, supra note 32; see also Cheney, supra note 33.

^{37. .} COSPAR Panel on Planetary Protection, COSPAR Policy on Planetary Protection, COMM. ON SPACE RSCH. (Jun. 3, 2021), available at https://cosparhq.cnes.fr/assets/uploads/2021/07/PPPolicy_2021_3-June.pdf (last visited Mar. 28, 2022); see also Gerhard Kminek Et. Al., COSPAR's Planetary Protection Policy, A CONSENSUS STUDY REP. OF THE NAT'L ACAD. OF SCI., ENG'G, MED. (2017) available at https://cosparhq.cnes.fr/assets/uploads/2019/12/PPPolicyDecember-2017.pdf (last visited Mar. 28, 2022); J.D. Rummel, et al., Ethical Considerations for Planetary Protection in Space Exploration: A Workshop, 12 ASTROBIOLOGY 1017, 1017-23 (2012).

^{38.} Stephen Eric Mustow, Environmental Impact Assessment (EIA) Screening and Scoping of Extraterrestrial Exploration and Development Projects, 36 IMPACT ASSESSMENT AND PROJECT APPRAISAL 467, 467-78 (2018) ("Other environmental issues have been given far less attention, including for example potential contamination by radioactive material which is often used within spacecraft and landers, atmospheric emissions and protection of environmental landscape features and historical/scientific or other resources of interest to humans." (internal citations omitted)).

^{39.} See Elliott Reavan, The United States Commercial Space Launch Competitiveness Act: The Creation of Private Space Property Rights and the Omission of the Right to Freedom from Harmful Interference, 94 WASH. U. L. REV. 238 (2016); see also Sarah Coffey, Establishing a Legal Framework for Property Rights to Natural Resources in Outer Space, 41 CASE W. RES. J. INT'L L. 119, 120 (2009) ("The moon, Mars, and other celestial bodies contain resources that are scarce or non-existent on Earth and which could have immense value. One example is helium-3, a substance common on the moon but exceedingly

envision this as *in situ* use to support human outposts on celestial objects. others foresee using the Moon and Mars as fuel stations to further explore the solar system, while others imagine exporting minerals back to Earth from celestial objects.⁴⁰ Inevitably, the prospecting, mining, and use of these resources will have an impact on the extraterrestrial environment. Some of the impact will be found in the form of pollution of water sources, soil, and the atmosphere, physical disturbance of the land, geologic features, cultural heritage sites, and human health and biodiversity impacts to extraterrestrial life.⁴¹ A common response to these impacts is that celestial bodies – including the Moon and Mars – are "just rocks." The "just rocks" argument posits that since there is currently no life on these objects, we should not artificially limit the exploration or exploitation of them. This argument seems to misunderstand two crucial pieces of information; first, there is no life that we know of, 43 and, second, there may be (and likely will be) human life on these celestial objects at some point in the future.

It is critical and necessary that we consider all the potential environmental impacts of space exploration and use. Impacts include space debris, pollution of orbits, contamination of celestial bodies, and other extraterrestrial environmental impacts. When considering extraterrestrial environmental impacts, it is important to bear in mind that the ecosystems of celestial objects are incredibly fragile, the resources on celestial objects are finite, there are currently more unknowns than knowns regarding resource extraction, and that resource extraction will impact future human use of celestial bodies as well as the resources contained therein.⁴⁴ It is also important to keep in mind the current state

scarce on Earth. Helium-3 has better potential for providing clean, efficient energy than any other source currently known on Earth.").

^{40.} Reavan, supra note 39, at 233; see generally Kramer, supra note 32.

^{41.} See Mustow, supra note 38, at 471 (includes a table of potential extraterrestrial environmental impacts by topic area).

^{42.} See generally Leigh Phillips, We Don't Need Elon Musk to Explore the Solar System, JACOBIN MAGAZINE (May 8, 2021), available at https://jacobinmag.com/2021/05/elon-musk-space-exploration-mars-colonization (last visited Mar. 27, 2022).

^{43. .} See generally Kramer, supra note 32; see also Cheney, supra note 32; Rummel, supra note 37, at 1019 ("both subgroups responded in the affirmative to the question of whether we should conduct solar system exploration in ways that minimize or eliminate other possible negative effects on celestial bodies (beyond prevention of biological contamination.").

^{44.} See Kramer, supra note 32, at 216; see also Mustow, supra note 38, at 471.

of outer space resource regulation and use as we turn to the next section: unilateral lawmaking and the regulatory "race to the bottom." NewSpace is bringing forth a new era of space exploration and exploitation with only the OST's ambiguous principles to constrain potential extraterrestrial impacts. As we will see in the next section, states are taking advantage of this approach but to their own detriment in the long run.

PART II - UNILATERAL US SPACE RESOURCES LAW AND POLICY

THE US SPACE ACT

On November 25, 2015, Congress passed, and President Barack Obama signed, the "US Commercial Space Launch Competitiveness Act" ("US Space Act").⁴⁵ On November 25, 2015 Congress passed, and President Barack Obama signed, the "US Commercial Space Launch Competitiveness Act" ("US Space Act").⁴⁶ The preamble of the law provides insight into Congress's considerations for the need of such legislation, stating that the act is necessary to "facilitate a pro-growth environment for the developing commercial space industry by encouraging private sector investment and creating more stable and predictable regulatory conditions, and for other purposes."⁴⁷

Most importantly for this Article, the US Space Act unilaterally grants access to space resources for US citizens and companies in Title IV "Space Resource Exploration and Utilization." Through the addition of this Section, the US provides a domestic legal framework for US citizens and private companies to explore, use, and sell outer space resources. This text exploits the ambiguities of Articles I and II of the OST and is an attempt by the US to thread the needle of space law by allowing the use of space resources by private companies, while attempting to not contravene the principles of the OST.

^{45.} U.S. Commercial Space Launch Competitiveness Act, Pub. L. No. 114-90, 129 Stat. 704 (2015) [hereinafter USCSLC].

^{46.} U.S. Commercial Space Launch Competitiveness Act, Pub. L. No. 114-90, 129 Stat. 704 (2015) [hereinafter USCSLC].

^{47. .} Id.

^{48. .} Id. at §51302.

^{49. .} *Id.* at §51303. (A United States Citizen engaged in commercial recovery of an asteroid resource or a space resource under this chapter shall be entitled to any asteroid resource or space resource obtained, including to possess, own, transport, use, and sell the

The US doubled-down on its deregulated approach to outer space resource use through the signing of Executive Order 13914 ("EO 13914"), entitled: "Encouraging International Support for the Recovery and Use of Space Resources." Issued by President Donald Trump on April 6, 2020, and still in force under President Joe Biden's administration, EO 13914 states that "Americans should have the right to engage in commercial exploration, recovery, and use of resources in outer space, consistent with applicable law." This language in EO 13914 can be seen as further supporting and justifying the US Space Act.

While scholars and states differ in their interpretations of whether or how much the US Space Act and EO 13914 align with or depart from the OST,⁵² the greater concern is the forum in which it was established, and the precedence it sets internationally.⁵³ In its condemnation of this approach, Russia has been particularly vocal, calling the US Space Act "manifestations of total disrespect for international law and order,"⁵⁴ referring to the trend in unilateral space resources policy - making as "fraught with serious risks for international cooperation and understanding," and calling upon the international community "to make a collective effort to prevent outer space, including the Moon and other celestial bodies, from becoming an arena for international discord and

asteroid resource or space resource obtained in accordance with applicable law, including the international obligations of the United States.).

^{50.} See Exec. Order No. 13914, 85 Fed. Reg. 70,20381 (Apr. 6, 2020).

^{51. .} Id. at § 1.

^{52.} See generally Fabio Tronchetti & Hao Liu, The White House Executive Order on the Recovery and Use of Space Resources: Pushing the Boundaries of International Space Law?, 57 Space Pol'y 1 (Sept. 13, 2021); see also Steven Freeland & Annie Handmer, Giant leap for corporations? The Trump administration wants to mine resources in space, but is it legal?, Conversation (Apr. 20, 2020), available at https://theconversation.com/giant-leap-for-corporations-the-trump-administration-wants-to-mine-resources-in-space-but-is-it-legal-136395 (last visited Mar. 28, 2022).

^{53. .} See Reavan, supra note 39. ("Some commentators suggest that the impact of passing the US Commercial Space Launch Competitiveness Act (USCSLC) will not be on international law, but rather on international politics. It is also reasonable to suggest that the USCSLC could trigger mirroring legislation in other space-faring nations, which could create heated competition, controversy, and possibly chaos.").

^{54.} Almudena Azcárate Ortega, Artemis Accords: A Step Toward International Cooperation or Further Competition?, LAWFARE (Dec. 15, 2020), available at https://www.lawfareblog.com/artemis-accords-step-toward-international-cooperation-orfurther-competition (last visited Mar. 28, 2022).

conflict."55 The US Space Act was the first domestic law to carve out specific outer space resource exploration and use allowances for private companies, but it was not the last Since its passage, Luxembourg (2017),56 the United Arab Emirates (2019),57 and Japan (2021)58 have all established domestic law allowing private companies to exploit outer space resources. This trend is a regulatory "race to the bottom" with countries competing to establish the most permissive frameworks for outer space resource use to encourage private companies to authorize under their domestic frameworks and launch from their soil.59 In this way, states may capitalize on the NewSpace era and the desire for a spatial fix to capitalism. Additionally, states are positioning themselves to be greater players in the space domain, strengthening themselves economically and militarily, while ignoring potential extraterrestrial environmental impacts.

THE REGULATORY "RACE TO THE BOTTOM": SHORT-TERM GAINS, LONG-TERM CONFLICT

The regulatory "race to the bottom" will provide short-term benefits to states like the US, Luxembourg, the UAE, and Japan, as they realize financial gains from their relationships with private companies and

^{55.} Comment by the Information and Press Department on the US President's Executive Order on Encouraging International Support for the Recovery and Use of Space Resources, MINISTRY FOREIGN AFFS. RUSS. FED'N (Apr. 7, 2020), available at https://www.mid.ru/en/foreign_policy/news/-/asset publisher/cKNonkJE02Bw/content/id/4096701 (last visited Feb. 1, 2022).

^{56.} Loi du 20 juillet 2017 sur l'exploration et l'utilisation des ressources de l'espace [Law of 20 July 2017 on the Exploration and Use of Space Resources], JOURNAL OFFICIEL DU GRAND-DUCE DE LUXEMBOURG [OFFICIAL GAZZETTE OF THE GRAND DUCHY OF LUXEMBOURG], No. 674, July 28, 2017 (Lux.); See also Froehlich & Seffinga, Alternative Law: Luxembourg's National Space Law, in National Space Legislation, Studies in Space Policy, (Vol. 15) (Feb. 17, 2018).

^{57.} Federal Law No. 12 of 2019, On the Regulation of the Space Sector, 669 – 2019 (Dec. 19, 2019), at 111 (UAE).

^{58. .} Act on Promotion of Business Activities Related to the Exploration and Development of Space Resources, Act No. 83, (Dec. 23, 2021) (Jpn.)

^{59.} Simon, *supra* note 1, at 213. ("Instead of promoting variations in regulations that create efficiencies to attract different market participants, a race to the bottom ideology believes regulatory competition pressures regulators to lower their standards to attract and keep market participants in their jurisdiction. As a result, a back-and-forth swing of lowering regulatory standards is created between jurisdictions, keeping governments captive to a cycle of continual regulatory softening. In the end, the entire market is left in a worse position — a macro net-loss.").

bolster their positions in outer space. 60 As this race continues, other states may adopt exploration and use policies that further diverge from the OST, eventually establishing a new regime of customary international law. In the short run, states adopting permissive regulatory regimes will reap the benefits of private company exploration and use of outer space, but the repercussions for long-term governance of outer space are potentially dire. 61 Short-sighted approaches to outer space resource use through domestic law will likely lead to over-exploitation of outer space resources and conflict in outer space. Outer space resources are not infinite, and their unregulated or under-regulated use will result in competition between states. 62 Competition between states, without clear rules or guidelines for resource exploration and use, will increase opportunities for conflict in space, which would be catastrophic both for states active in outer space and fledgling private companies. 63 Geopolitical conflicts on Earth may also exacerbate or contribute to conflicts in space.

Conflict in outer space will emerge from competition over space resources and unclear regulatory policies. While space is infinite, with billions upon billions of stars, galaxies, and other celestial objects, the potentially exploitable resources near the Earth are not.⁶⁴ The Moon, Mars, and near-Earth asteroids are finite objects with finite resources. Currently, outer space resource exploration and use is constrained by technology, scientific knowledge, and distance. This will not be the case for much longer, as technology improves and scientific knowledge advances, shrinking the distances. Given this finitude of resources, there

^{60.} Id. ("Regulatory competition occurs when states compete with one another in their capacity as regulators to attract people, resources, and entities into their jurisdictional authority. Through securing a diverse pool of talent and interests, states realize increased economic activity. This in turn decreases unemployment, lowers social welfare costs, and raises tax revenues. Given the economic and technological potency the NewSpace industry could input into an economy, there is considerable appeal in attracting NewSpace entrepreneurs for states." (Internal footnote citations omitted).

^{61. .} *Id*.

^{62. .} Hope M Babcock, *The Public Trust Doctrine, Outer Space, and the Global Commons: Time to Call Home ET*, 69(2) SYRACUSE L. REV. 191, 240 (2019). ("Unless the development of outer space resources is regulated, too many entities vying for the same resource could lead not only to congestion and rivalrous behavior, but also to accidents and serious conflict—the conditions the space treaties are intended to avoid.")

^{63. .} Simon, *supra* note 1, at 220. ("Military action in the face of conflicting interests over a vital and limited resource is a familiar scenario as is further destruction of the environment as collateral damage in such a confrontation.").

^{64.} See generally Mustow, supra note 38.

will be competition on celestial bodies for energy from sunlight, water, and minerals.⁶⁵ Since private companies and states are investing significant sums in resource extraction, they will jockey for the best sites on celestial bodies to exploit resources.

The conflicts that arise between actors in a commons like outer space, and the governance of the commons, is an oft-debated subject in the literature. 66 The most widely-cited theory in this domain is Garrett Hardin's "Tragedy of the Commons," which assumes actors will overexploit a common resource if left to their own devices.⁶⁷ Hardin recommends enclosure and privatization of the commons as a policy solution to ensure this tragedy does not occur.⁶⁸ In response, Nobel prizewinning economist Elinor Ostrom's theory on collective action and common pool resources, provides a more nuanced framework. Dispensing with the one-size-fits-all approaches of centralization or privatization. Ostrom theorizes an approach focused on collective action of the group to address the specific needs of the common pool resource. 69 While Hardin and Ostrom fundamentally disagree about the best mechanism to govern resources within a commons, they both agree that without some governance, conflicts would necessarily arise. 70 Examples of conflicts over under-regulated common pool resources on Earth can be found in fisheries, grazing, and water management.⁷¹ Furthermore, research shows that after conflicts have developed, cooperative management of a resource can serve to reduce natural resources conflicts through "environmental peacebuilding." Finally, research shows that competition for natural resources can drive conflict and that the conflict

^{65.} Babcock, supra note 61, at 240.

^{66. .} See generally id.

^{67.} Garrett Hardin, The Tragedy of the Commons: The Population Problem Has No Technical Solution; It Requires a Fundamental Extension in Morality, 162 Sci. 1243, 1243–8 (1968).

^{68. .} Id.

^{69.} Elinor Ostrom, Governing the Commons: The Evolution of Institutions for Collective Action (James E. Alt, et al. eds, 1990).

^{70.} Id. at 90 (For example, Ostrom includes conflict-resolution as one of her eight design principles for long-enduring common pool resource (CPR) institutions); see also Hardin, supra note 66, at 1244 ("[r]uin is the destination toward which all men rush, each pursuing his own best interest in a society that believes in the freedom of the commons").

^{71.} See Ostrom, supra note 68 (exploring each CPR in detail).

^{72.} Blake Ratner et al., Addressing Conflict through Collective Action in Natural Resource Management, 11(2) INT'L J. OF THE COMMONS, 877 (2017); INTERNATIONAL UNION FOR CONSERVATION OF NATURE, CONFLICT AND CONSERVATION (1st ed, 2021).

causes follow-on impacts to the environment.⁷³ In an under-regulated environment like outer space, with private companies operating under different exploitation frameworks and regimes, and competing with one another for finite sites to exploit resources, the opportunities for dispute and conflict increase significantly.

Additionally, the geopolitical situation on Earth is likely to increase the chances of conflict in outer space. Powerful space actors, such as Russia and China, are bolstering their state and private space programs. China is building its own space station – Tiangong – as the ISS is set to be decommissioned. Russia recently demonstrated anti-satellite rocket capabilities, which created a debris field endangering astronauts on the ISS. Together, Russia and China have entered into a memorandum of understanding to build a lunar base, a direct challenge to the US's Artemis program. Relations between Russia, China, and the US are fraught on Earth, where the regulations around resource extraction and conflict are clearer. As these countries expand into space resource use, and geopolitical tensions are projected into the arena of space, the chances and potential for conflict continues to grow.

Since the rules of engagement for such conflicts in outer space are unclear, the outcomes could be catastrophic (see discussions regarding the Woomera and Milamos manuals).⁷⁷ States that are the most active in outer space, such as the US, China, and Russia, will have the most to lose

^{73.} International Union for Conservation of Nature, supra note 71.

^{74.} Eleanor Lutz, A Tour of China's Tiangong Space Station, N.Y. TIMES (Sept. 22, 2021), available at https://www.nytimes.com/interactive/2021/science/tiangong-space-station.html (last visited Mar. 24, 2022); Stephen McDonell, China Launches First Module of New Space Station, BBC News (Apr. 29, 2021) available at https://www.bbc.com/news/world-asia-china-56924370 (last visited Mar. 24, 2022).

^{75.} See Bugos, supra note 35.

^{76.} Nathaniel Rome, A Chinese-Russian Moon Base? Not So Fast., FOREIGN POLICY, available at https://foreignpolicy.com/2021/10/17/moon-base-china-russia-lunar-space-nasa/ (last visited Mar. 24, 2022). (The two countries have released a road map, which includes a total of 14 missions, culminating with a manned lunar base. Rome debates whether that is in fact achievable, or mere posturing).

^{77.} See generally Cassandra Steer, The Woomera Manual: Legitimising or Limiting Space Warfare?, in MILITARY SPACE ETHICS, Howgate Publishing (2021)(forthcoming); The Woomera Manual, available at https://law.adelaide.edu.au/woomera/about (last visited Mar. 24, 2022); Manual on International Law Applicable to Military Uses of Outer Space, available at https://www.mcgill.ca/milamos/ (last visited Mar. 24, 2022).

from such a conflict.⁷⁸ These states could find their space programs and private industries devastated by a conflict, while other countries with small space programs or space industries will be relatively unaffected — except for the geopolitical outfall as the conflict extends onto Earth. Similarly, private companies in outer space will have the most to lose from conflicts that arise. Private companies rely on stability and predictability to maintain the investments of their shareholders. Conflicts in space between states would create chaos and significantly impact a nascent industry.

Put another way, private companies and the current hegemonic space powers also have the most to gain from clear regulations and a conflict-free operating environment in outer space. As described above, the current unilateral, state-by-state approach to exploration and use of space resources will not effectively achieve this environment. Rather, it will likely lead to a scramble for finite resources and conflict, destabilizing industry, and research in outer space. Bearing this in mind, it is imperative that States shift from the status quo, unilateral regulatory "race to the bottom" and towards a precautionary, preventative approach to space resources use, developed in a multilateral setting.

PART III – A PRECAUTIONARY, PREVENTATIVE APPROACH

THE ANTARCTIC TREATY SYSTEM'S MADRID PROTOCOL

In order to avoid extraterrestrial environmental impacts and prevent conflicts arising from the regulatory "race to the bottom," which is symptomatic of unilateral policy and lawmaking, states must shift to a precautionary, preventative approach to space resource exploration and use developed in a multilateral forum. A regulatory framework that fits this approach is the Antarctic Treaty System's Madrid Protocol.

The Antarctic Treaty⁷⁹ and the OST are close corollaries as the Antarctic Treaty was used as one of the foundational texts for the OST.⁸⁰ On September 22, 1960 President Eisenhower proposed to the UN

^{78.} Presentation by Steven Freeland, November 3, 2021 (on file with author).

^{79.} Antarctic Treaty, Dec. 1, 1959, 12 U.S.T. 794, 402 U.N.T.S. 71.

^{80.} Outer Space Treaty, U.S. DEPT. OF STATE, available at https://2009-2017.state.gov/t/isn/5181.htm#:~:text=of%20all%20mankind.-

[,]Outer%20space%2C%20including%20the%20moon%20and%20other%20celestial%20bod ies%2C%20shall,all%20areas%20of%20celestial%20bodies (last visited Mar. 24, 2022).

General Assembly that the principles of the Antarctic Treaty be applied to outer space.⁸¹ According to Dembling and Arons' contemporary account, the OST was clearly based on the Antarctic Treaty: "An obvious precedent for an international convention governing activities in outer space and on celestial bodies is the Treaty concerning Antarctica."⁸²

According to Dembling and Arons' contemporary account, the OST was clearly based on the Antarctic Treaty: "An obvious precedent for an international convention governing activities in outer space and on celestial bodies is the Treaty concerning Antarctica."83 Articles I through IV of the Antarctic Treaty provide that the Antarctic shall be used for peaceful purposes, allowing freedom of scientific investigation and cooperation, enabling the exchange of scientific information and personnel, and the prohibition of additional claims of sovereignty.⁸⁴ These articles in the Antarctic Treaty are the basis for Articles I, II, IV, XI, and XII in the Outer Space Treaty. 85 At the height of the Cold War, the adoption of the two treaties deescalated tensions in their respective domains by centering peaceful, scientific uses and prohibiting new sovereign claims.⁸⁶ Considering their histories and similarities, and considering the need to update the OST with a framework to regulate space resource exploration and use, perhaps it is time to again look to the Antarctic Treaty for guidance in outer space. Since its adoption, the Antarctic Treaty has been augmented by a protocol – the Protocol on Environmental Protection to the Antarctic Treaty ("the Madrid Protocol").87 By applying the Madrid Protocol to outer space, we will arrive at a precautionary, preventative approach to outer space resource exploration and use.

^{81. .} Id.

^{82.} Dembling & Arons, supra note 17, at 423.

^{83.} Dembling & Arons, supra note 17 at 423.

^{84. .} Id.

^{85. .} Id.

^{86.} Jeffrey D. Myhre, Origins of the Antarctic Treaty, 1948-1959, in THE ANTARCTIC TREATY SYSTEM: POLITICS, LAW, AND DIPLOMACY, at 23 (1986); Steven Freeland and Anja Nakarada Pecujlic, How Do You Like Your Regulation - Hard or Soft? The Antarctic Treaty and the Outer Space Treaty Compared, 30(1) NAT'L L. SCH. OF INDIA REV. 1, 16 (2017).

^{87. . .} Protocol on Environmental Protection to the Antarctic Treaty, Special Consultative Meeting, 27th Sess., ATSCM/2/3/2, 30 I.L.M. 1455 (1991) [hereinafter Protocol].

It is important to note that the Madrid Protocol was not developed in a vacuum and did not emerge on the international stage without a To fully understand the Madrid Protocol, some catalyzing event. historical context is required. The Antarctic Treaty System (ATS), as originally drafted in 1959, was more concerned with de-escalation and demilitarization of the region than with environmental protection (an oversight also replicated in the OST).88 However, the ATS did include a provision in Article IX(f) for consultative parties to meet and discuss issues relating to "the preservation and the conservation of living resources" of the Antarctic. 89 Within this framework, consultative parties met and adopted three increasingly protective measures for the Antarctic treaty area from 1964 to 1982.90 Then, in 1988, the consultative parties developed the "Convention for the Regulation of Antarctic Mineral Resource Activities."91 At the time, there were no known mineral deposits in the Antarctic, let alone cost-effective means of accessing potential minerals.⁹² Nevertheless, consultative parties established a robust regime to govern the prospecting and mining of resources in the Antarctic, which at the time was "the most comprehensive environmental protection for the continent."93 After six years of painstaking deliberation, the Convention opened for signature on November 25, 1988, but it was never signed or ratified due to an environmental catastrophe. 94 Four minutes after midnight on March 24, 1989, the Exxon Valdez struck Bligh Reef in Alaska's Prince William Sound with 53 million gallons of

^{88.} Evan Bloom, The History, Vision Behind and Impact of the Protocol on Environmental Protection to the Antarctic Treaty, U.S. DEPARTMENT OF STATE (May 30, 2016), available at https://2009-2017.state.gov/e/oes/rls/remarks/2016/258286.htm (last visited January 22, 2022).

^{89.} S.K.N. Blay, New Trends in the Protection of the Antarctic Environment: The 1991 Madrid Protocol, 86 Am. J. of INT'L LAW 2, 379 (1992).

^{90. .} *Id.* (The three measures include one agreement and two conventions: "The Agreed measures for the Conservation of Antarctic Fauna and Flora," "The Convention for the Conservation of Antarctic Seals," and "The Convention for the Conservation of Antarctic Marine Living Resources.").

^{91.} CHRISTOPHER A. CAREY, THE ANTARCTIC TREATY SYSTEM IN WORLD POLITICS 161 (Arnfinn Jørgensen-Dahl & Willy Østreng, eds., 1st ed. 1991).

^{92.} Bloom, supra note 88.

^{93.} Blay, *supra* note 89, at 382. (CRAMR included: a Commission for oversight of mineral operations and to review proposals, a required Environmental Impact Statement for operators, liability provisions, the ability to restrict and/or prohibit mining in certain areas, and more.).

^{94. .} Id. at 378.

crude oil on board.⁹⁵ The ATS consultative parties pivoted and, under the leadership of Australia and France, developed the Protocol on Environmental Protection to the Antarctic Treaty, which would eventually become known as the Madrid Protocol.⁹⁶

The Madrid Protocol was drafted in relatively short order and adopted at the 1991 consultative meeting in Madrid.⁹⁷ The Protocol entered into force in 1998⁹⁸ and established a comprehensive approach to environmental protection of the Antarctic, by creating an "environmental code," covering all human activities on the continent."⁹⁹ The Madrid Protocol requires state parties "commit themselves to the comprehensive protection of the Antarctic environment and dependent and associated ecosystems, and designates Antarctica as a natural reserve devoted to peace and science."¹⁰⁰ The keystone of the preservation of the Antarctic is a ban on all mineral exploration and use, found in Article 7 of the Protocol.¹⁰¹ However, the Protocol does provide a mechanism and

^{95.} Exxon Valdez Oil Spill, HISTORY (Mar. 23, 2021), available at https://www.history.com/topics/1980s/exxon-valdez-oil-spill (last visited Mar. 20, 2022). ("The oil spill was the worst in US history (until the Deepwater Horizon spill in 2010), resulting in the contamination of 1,300 miles of coastline and the deaths of an estimated 250,000 sea birds, 3,000 otters, 300 seals, 250 bald eagles, and 22 killer whales.).

^{96.} Bloom, *supra* note 88. (Bloom, the Director of the Bureau of Oceans and International Environmental Scientific Affairs at the US Office of Polar Affairs, had the following remarks regarding the Madrid Protocol at a 25th anniversary event for the protocol in 2016:

[&]quot;The Antarctic Treaty Parties made a wise decision when they decided to negotiate and ultimately adopt the Environmental Protocol. This took an act of political courage, requiring the abandonment of an approach that had been under negotiation for years, namely the establishment of a regulatory regime related to mining, in favor of taking a quite different direction. My government had initially supported the prior approach under the Convention on the Regulation of Antarctic Mineral Resource Activities (CRAMRA). But the daring perhaps heroic – decision by leaders of countries like Australia and France, we must admit, led to something better. With the benefit of hindsight, the wisdom of that change of course is now quite evident.").

^{97.} Blay, supra note 89, at 387.

^{98. .} Summary Information, CENTRE FOR INT'L LAW AT NAT'L UNIV. OF SINGAPORE, available at https://cil.nus.edu.sg/databasecil/1991-protocol-on-environmental-protection-to-the-antarctic-treaty/ (last visited Mar. 20, 2022). (Under a similar timeline, the OST should have been augmented with a space resources exploration and use framework in 1999, with ratification taking place by 2006. It is long overdue.).

^{99.} Blay, supra note 89, at 385.

^{100.} Protocol, supra note 87, at Art. 2.

^{101.} Protocol, *supra* note 87, at Art. 7 ("Any activity relating to mineral resources, other than scientific research, shall be prohibited.).

pathway to begin mineral exploration and use at a future date. The Madrid Protocol includes a provision allowing for amendment based on unanimous agreement by parties, and in 2048 (fifty years after the treaty entered into force) any state party to the treaty may request review or modification of the Protocol. ¹⁰² If a state party intends to modify Article 7 of the protocol related to the prohibition on Antarctic mineral resource activities, a legal regime for Antarctic mineral resource extraction and use must be adopted. ¹⁰³ Through these mechanisms, state parties to the Antarctic Treaty System have established the Antarctic as a natural preserve for a minimum of 50 years. Additionally, state parties have banned mineral resource extraction in the Antarctic for a minimum of 50 years and until there is an agreed-upon legal regime in place.

One should not reduce the Madrid Protocol to a simple ban on Antarctic mining - it is far more comprehensive. The Protocol also environmental principles, creates a Committee Environmental Protection to advise consultative parties of environmental impacts, and requires prior environmental assessment of all proposed activities that take place in the treaty area. 104 Article 3 of the Madrid Protocol lays out a series of environmental principles. 105 In support of the principles, Article 8 of the Madrid Protocol requires an environmental impact assessment of any activities in the Antarctic Treaty area. 106 Through these principles and mechanisms, we find a framework in the Madrid Protocol that centers environmental protection, takes a preventative and precautionary approach to environmental impacts, and still provides a mechanism for future resource exploration and use.

Since the ATS served as a basis for the drafting of the OST, might the Madrid Protocol also serve as a basis for a space resources exploration

^{102. .} *Id.* at Art. 25, Sec. 2 (a request for review or modification after 50 years must be approved by three quarters of the consultative parties).

^{103.} Id. at Art. 25, Sec. 5(a) ("With respect to Article 7, the prohibition on Antarctic mineral resource activities contained therein shall continue unless there is in force a binding legal regime on Antarctic mineral resource activities that includes an agreed means for determining whether, and, if so, under which conditions, any such activities would be acceptable.").

^{104.} Blay, supra note 87 at 382.

^{105.} Protocol, *supra* note 85 at Art. 3, Sec. 2(a) ("activities in the Antarctic Treaty area shall be planned and conducted so as to limit adverse impacts on the Antarctic environment and dependent on associated ecosystems").

^{106. .} *Id.* at Art. 8 (The EIA includes "scientific research programmes, tourism and all other governmental and non-governmental activities in the Antarctic Treaty area . . . including associated logistic support activities.").

and use framework? If we were to apply the principles and building blocks of the Madrid Protocol to space, what would be lost and what would be gained? A Madrid Protocol in space would permit a pathway for eventual resource exploration and use. In the meantime, a Madrid Protocol for the OST would allow for scientific exploration, space tourism, satellite launches, and visits to the Moon and celestial bodies, with the added layer of protection of an environmental impact assessment. A Madrid Protocol in space would take a preventative and precautionary approach to extraterrestrial environmental impacts. Relatedly, it would help deescalate outer space with a framework that centers protection, rather than competition. Finally, a Madrid Protocol for the OST would allow states with fledgling space sectors the time and opportunity to grow their space industries to compete with established space powers. The benefits of adopting a space resources framework that mirrors the Madrid Protocol are many.

Applying the Madrid Protocol to outer space is not the only option for a space resources framework, although it is likely the most precautionary and protective of the extraterrestrial environment. States may instead prefer an approach that is more permissive of space resource extraction. Since we have not had an equivalent Exxon Valdez disaster in space, it may be more palatable to adopt an approach more aligned with the Madrid Protocol's predecessor -CRAMRA. One such space resources framework under consideration has been proposed by the Hague Space Resources Working Group ("the Hague Working Group"). The Hague Working Group, which was established in 2016, defines its objective as follows: "to assess the need for a governance framework on space resources and to lay the groundwork for such framework (sic)."107 In order to achieve its mission, the Working Group met over the course of two years and, using a consensus-based approach, developed a set of "building blocks" related to space resource exploration and use to inform governance framework for states and organizations. 108 Accordingly, the Hague Working Group has submitted the Building Blocks to the UNCOPUOS space resources working group

^{107.} The Hague International Space Resources Governance Working Group, UNIVERSITEIT LEIDEN, available at https://www.universiteitleiden.nl/en/law/institute-of-public-law/institute-of-air-space-law/the-hague-space-resources-governance-working-group (last visited Mar. 26, 2022) [hereinafter Hague Working Group].

^{108.} Chelsey Davis & Mark J. Sundahl, *The Hague Working Group on Space Resources: Creating the Legal Building Blocks for a New Industry*, 30 THE AIR & SPACE LAW. (2017).

for consideration and incorporation into the eventual space resources exploration and use framework. Ultimately, the Hague Building Blocks fall short in several respects. First, the language in the Building Blocks regarding risk and damage to the environment, while potentially useful upon close reading, is too vague a formulation for a future framework and relies, perhaps to its detriment, on the Moon Agreement. Second, in removing the language of the "precautionary approach" the Building Blocks rely on the less effective and more reactive environmental framework of "avoidance and mitigation." In this way, the Building Blocks represent a CRAMRA-like approach to outer space resource exploration and use. Ultimately, the UNCOPUOS working group will decide upon a final framework and in terms of extraterrestrial environmental protection, the Hague Building Blocks do not go far enough.

UNCOPUOS – THE APPROPRIATE FORUM FOR A FRAMEWORK

A multilateral forum is required to develop a space resources framework. As discussed in Part II, the unilateral approach leads to a regulatory "race to the bottom" and the eventual formation of customary international law that benefits some countries above others. The multilateral forum must also be international for all states to participate. Additionally, the forum must include and consider the widest range of possible interests. Otherwise, it would be possible to reach an agreement on a framework while ignoring the concerns of less powerful states. Finally, the multilateral forum should have significant experience drafting similar frameworks. Considering these requirements, there is only one body with the experience, mission, and membership to effectively draft a multilateral framework for space resources to include extraterrestrial environmental impacts: the United Nations Committee on Peaceful Uses of Space (UNCOPUOS). UNCOPUOS is an international

^{109.} Hague Int'l Space Res. Governance Working Grp., Building Blocks for the Development of an International Framework on Space Resource Use (Nov. 12, 2019), available

https://www.universiteitleiden.nl/binaries/content/assets/rechtsgeleerdheid/instituut-voorpubliekrecht/lucht—en-ruimterecht/space-resources/bb-thissrwg—cover.pdf (last visited Mar. 28, 2022).

^{110.} BUILDING BLOCKS FOR THE DEVELOPMENT OF AN INTERNATIONAL FRAMEWORK FOR THE GOVERNANCE OF SPACE RESOURCE ACTIVITIES – A COMMENTARY 63 (Bittencourt Neto et al., eds., 2020).

^{111. .} Id. at 64.

body and one of the UN's largest committees, including 95 member states and 43 observer organizations. Furthermore, UNCOPUOS is a consensus-based organization, relying on member states to arrive at agreed-upon language for an agreement to be adopted (but not requiring a vote). UNCOPUOS is also the original drafting body of the OST, as well as the other four follow on agreements. Finally, UNCOPUOS drafted the non-binding Long-Term Sustainability Guidelines, which were adopted in June 2019 and serve as a natural precursor to the drafting of a space resources framework.

UNCOPUOS has already taken the first steps towards drafting a space resources framework. In 2021, UNCOPUOS established a space resources working group under the Legal Subcommittee. Chaired by Ambassador Andrzej Misztal of Poland and Vice-Chaired by Professor Steven Freeland of Australia, the space resources working group has established a mandate, scope of work, and is currently developing a 5-year plan. The mandate of the working group is fivefold: to collect information regarding exploration and use of space resources; to develop recommended principles and practices (if appropriate) for space exploration and use activities; to study existing legal frameworks, taking into consideration the OST and other UN treaties; to assess benefits of additional governance instruments; and to identify areas for further work of the committee, including "models, rules and/or norms, for activities in the exploration, exploitation, and utilization of space resources." Furthermore, the working group mandate states that it shall take "into

^{112. .} Committee on the Peaceful Uses of Outer Space, U.N. OFF. FOR OUTER SPACE AFFAIRS, available at https://www.unoosa.org/oosa/en/ourwork/copuos/index.html (last visited Jan. 29, 2022) [hereinafter COPUOS].

^{113.} Freeland & Pecuilic, supra note 84 at 21.

^{114.} COPUOS, supra note 110.

^{115.} Long-Term Sustainability of Outer Space Activities, U.N. OFF. FOR OUTER SPACE AFFAIRS, available at https://www.unoosa.org/oosa/en/ourwork/topics/long-term-sustainability-of-outer-space-activities.html (last visited Mar. 28, 2022).

^{116. .} COPUOS, Working Group on Space Resources, UNITED NATIONS, available at https://www.unoosa.org/oosa/en/ourwork/copuos/lsc/space-resources/index.html (last visited Mar. 25, 2022).

^{117.} Antonio Salmeri, #SpaceWatchGL Interviews: Ambassador Misztal and Professor Freeland on UNCOPUOS Working Group on Space Resources, SPACEWATCH GLOBAL, available at https://spacewatch.global/2021/09/spacewatchgl-interviews-ambassador-misztal-and-professor-freeland-on-uncopuos-working-group-on-space-resources/ (last visited Mar. 25, 2022).

^{118. .} COPUOS Working Group, supra note 114.

account inputs from permanent observers and non-governmental stakeholders such as academia, civil society, technical experts . . ." ¹¹⁹ The aforementioned Madrid Protocol and the Hague Building Blocks represent two such inputs.

CHALLENGES AND CONCLUSION

The UNCOPUOS space resources working group faces a difficult path to arrive at a space resources exploration and use framework. As stated above, the group requires consensus to agree on a framework and state parties will enter the negotiations with drastically different perspectives. A resource framework as precautionary as the Madrid Protocol will face a particularly difficult path to adoption. The challenges arrayed against the Madrid Protocol applied to outer space are many but can be summarized as follows: the existence of an alternative body of practice, perceived stifling of enterprise, lack of a catalyst, and global geopolitics. Some bright spots, or opportunities for a precautionary, preventative approach in outer space, include the following: a subtle shift towards multilateralism in outer space, a body of international environmental law, and general agreement about the benefits of the Madrid Protocol for the Antarctic.

A proposal for space resource exploration and use that would apply the Madrid Protocol to outer space will meet several challenges. First, there is a body of practice and domestic law which runs counter to the Protocol. As mentioned in Part II, a few states have adopted measures to explore and use space resources. It is important to note that this can in no way be considered customary international law at this point. The number of states with such frameworks can still be counted on one hand and all the laws were adopted within the last six years. However, it is likely more states will adopt similar approaches in the near future and overcoming an established body of practice can be difficult. 120 Second, the Madrid Protocol will be perceived as stifling enterprise. If the Protocol is applied to outer space, it is sure to negatively impact the value of space mining and space tourism companies. Some will argue that, since these are young, burgeoning companies, they need cultivation and should not be hampered by such stringent regulations. But are these companies truly so small, or are they primarily projects for billionaires to expand into space, or opportunities for venture capitalists to place big

^{119. .} *Id*.

^{120.} See Simon, supra note 1.

bets? And, for the small companies, as they grow will they be more willing to accept regulation, or will they instead lobby against it? I presume the latter. Additionally, today's space companies rely heavily on state investment and so cannot pretend to be at the whim of market forces. And finally, if a company is permitted to mine a planet and causes some extraterrestrial harm, to whom will they be held accountable? The potential for catastrophe brings me to my third challenge for the Madrid Protocol – the lack of a catalyst. Fortunately, we have not had a disaster akin to the Exxon Valdez in outer space. The absence of a disaster is due to our limited activities in space up to this point, and luck. On the issue of space debris, we are getting increasingly close to the Kessler Syndrome, which is visible as astronauts on the ISS are required to shelter in escape capsules with increasing frequency. 121 For contamination, we have had several near misses 122 - imagine if we polluted a planet's life with our own? – imagine if we polluted a planet's life with our own? And it is not hard to imagine a hypothetical, like that described in the introduction or above, by Reinstein: a company polluting a very limited water source on a celestial object, making the entire planet unfit for humans. The final challenge is one that all potential space resource frameworks face – global geopolitics. In order to arrive at consensus, the United States, Russia, and China will have to agree, along with other spacefaring and developing countries. Considering the relational challenges between these states on Earth this will be no simple feat.

Despite these challenges, there are also reasons to be optimistic that UNCOPUOS could adopt a precautionary, preventative approach to space resource exploration and use. First, despite the unilateral lawmaking by states, there is also a recent trend towards multilateralism. The Artemis Accords, spearheaded by the United States (and furthering US hegemony in space), may be viewed as one example of this

^{121.} Rebecca Heilweil, *The Space Debris Problem is Getting Dangerous*, Vox (Nov. 16, 2021, 2:45 PM), *available at* https://www.vox.com/recode/2021/11/16/22785425/international-space-station-russia-missle-test-debris (last visited Mar. 25, 2022).

^{122.} See Cheney, supra note 33 at 5. (In February 2019, an Israeli spacecraft crashed into the Moon's surface. In August 2019, the mission commander revealed the payload included tardigrades, which are some of the most resilient known life forms. "The lack of disclosure of the existence of the tardigrades casts doubt upon the compliance of the Beresheet mission to the planetary protection guidelines.").

multilateralism.¹²³ The Accords state, "The Signatories intend to use their experience under the Accords to contribute to multilateral efforts to further develop international practices and rules applicable to the extraction and utilization of space resources, including through ongoing efforts at the COPUOS."124 This sentiment is an effective entry point into international collaboration on the topic of space resources and use. The second cause for optimism is the increasing international awareness regarding environmental issues, accompanied by a growing body of international environmental law. 125 The OST and ATS were developed prior to scientific findings regarding impacts from DDT, ozone-depleting chemicals, carbon and methane emissions, and acid mine drainage. Since then, the international community has adopted the Stockholm Convention to ban DDT, the Vienna Convention for the protection of the ozone layer, the Madrid Protocol itself, the Rio Declaration on Environment and Development, the Convention on Biological Diversity, the UN Framework Convention on Climate Change, the Kyoto Protocol, Paris Agreement, and follow-on accords to address carbon and methane emissions. 126 The international trend towards sustainability environmental preservation bodes well for applying the Madrid Protocol to outer space. A final cause for optimism is the fact that the Madrid Protocol is widely heralded as a success. 127 Since its adoption over 25 vears ago, it has achieved the goals of preserving the Antarctic environment while encouraging scientific investigation. 128 Additionally, it has served a secondary goal of continuing to de-escalate Antarctic tensions by removing any incentive towards competition via resource extraction. 129

^{123.} See Artemis Accords: Principles for Cooperation in the Civil Exploration and Use of The Moon, Mars, Comets, and Asteroids for Peaceful Purposes, (Oct. 13, 2020), available at https://www.nasa.gov/specials/artemis-accords/img/Artemis-Accords-signed-13Oct2020.pdf (last visited Jan. 31, 2022). (The Artemis Accords were opened for signature with international partners on October 13, 2020. Currently, 11 countries are signatories to the Accords, including: New Zealand, Republic of Korea, Australia, Canada, Italy, Japan, Luxembourg, the United Kingdom, the United Arab Emirates, Ukraine, and the United States.).

^{124. .} Id. at § 10.

^{125. .} PHILLIPE SANDS ET. AL., PRINCIPLES OF INTERNATIONAL ENVIRONMENTAL LAW xxi (2d ed. 2003)

^{126. .} Id. at 1.

^{127.} See Bloom, supra note 86.

^{128. .} Id.

^{129. .} Id.

The challenges facing the application of the Madrid Protocol to outer space are many: a growing body of practice, the perception of stifled enterprise, the lack of a catalyst, and global geopolitics. Gaining the acceptance of this framework through UNCOPUOS' consensus-based process will not be easy. And yet the challenges all have sound rebuttals and there is also cause for optimism: trends towards multilateralism, increasing environmental awareness and international action, and the success of the Madrid Protocol for the ATS.

Now is the time to adopt a preventative, precautionary approach to outer space resource exploration and use. Private companies are proliferating in outer space through a NewSpace regime in order to achieve a "spatial fix" to capitalism. In response, states are adopting unilateral legislation and policy positions. This approach is leading to a regulatory "race to the bottom," with the effect of an unclear and underregulated approach to space resources exploration and use. The lack of clarity and competition for space resources, in turn, could quickly spiral Considering this trajectory, states must pivot to a multilateral approach to regulating space resource exploration and use. The UNCOPUOS space resources working group provides the ideal venue to create a framework for outer space resources. As a corollary to the OST, the Madrid Protocol offers the best principles and framework for an approach to space resources that is precautionary, deescalates potential conflict in space, and prevents damage to the extraterrestrial environment.

It is a new day on Mars. Imagine you step out of the research station at dawn and take in the view. Across the horizon, which is eerily flat, you can see into the expanse of space and, rising in the distance, the pale sun – its light barely reaching the Martian surface. The morning is still bitter cold, that will never change, but this time the thin Martian atmosphere is crystal clear. The community mining site is carefully managed with minimal disturbance to the surface and no leachate. At the transport depot, a SpaceCorp Cargo ship, ferrying precious minerals to Titan, is cleared for blastoff after rigorous inspection and compliance protocols. As it hurtles into space, you cannot help but find yourself wondering – how did we, humanity, get here?