ARE WE MAKING PROGRESS?: THE CONSTITUTION AS A TOUCHSTONE FOR CREATING CONSISTENT PATENT LAW AND POLICY

Vivian J. Fong*

INTRODUCTION

The Intellectual Property Clause of the Constitution states that "Congress shall have 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." Naturally, the impact of this Clause depends on the various meanings that are ascribed to its words. This Comment focuses on the effect of attributing different meanings to the term "progress."

"Progress," in the context of Article I, Section 8, Clause 8 of the Constitution ("Intellectual Property Clause" or "Clause"), has gener-

^{*} J.D. Candidate, University of Pennsylvania Law School, 2009; Sc.B., Brown University, 2006. I am especially grateful to Rachel Zuraw and Lauren Robbins for their exceptional editing. I would also like to thank Katy Hitchins, John Hein, Megan Ridley, Robert Larimore, Helena Franceschi, and Jasper Cacananta for their comments and support.

¹ U.S. CONST. art. I, § 8, cl. 8.

This Comment assumes that the "progress" component of the Intellectual Property Clause carries weight. On several occasions, usually in the copyright context, this introductory phrase has been treated as a non-binding preamble and disregarded. See, e.g., Eldred v. Reno, 239 F.3d 372 (D.C. Cir. 2001) (proclaiming that the introductory phrase of the Intellectual Property Clause is not a substantive limit on Congress's power); MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 1.03[A] (2008) ("[T]he phrase 'To promote the progress of science and useful arts . . . ' must be read as largely in the nature of a preamble, indicating the purpose of the power but not in limitation of its exercise."). However, the majority of commentators take the position that this portion of the Clause not only provides a meaningful limitation on the congressional patent and copyright powers, but it also articulates the purpose of the Intellectual Property Clause as a whole, or in other words, the ends that are to be achieved. See, e.g., Bonito Boats, Inc. v. Thunder Craft Boats, Inc., 489 U.S. 141 (1989) (affirming that the introductory phrase of the Intellectual Property Clause does contribute meaning to the Clause in patent cases); Goldstein v. California, 412 U.S. 546, 555 (1973) ("[The Intellectual Property Clause] describes both the objective which Congress may seek and the means to achieve it."); Lawrence B. Solum, Congress's Power to Promote the Progress of Science: Eldred v. Ashcroft, 36 LOY. L.A. L. REV. 1, 20 (2002) ("Congress is given power to pursue an end-promotion of science; and that power is limited by the specification of the means that Congress may employ-the securing to authors of the exclusive right to their writings for limited terms.").

ally been understood to stand for the notion of "qualitative improvement." This can be at least partially explained by the fact that "improvement," in terms of movement towards a particular goal, is the dominant definition for "progress" as the term is used today. Adopting this understanding for a moment, the introductory phrase of the Intellectual Property Clause can be alternatively stated as: Congress has the power to encourage⁵ the improvement⁶ of learning⁷ and technology.8 Departing from the majority opinion, this Comment adds to the small but growing body of commentary that challenges the perception that "progress" refers to "qualitative improvement." Instead, this Comment argues that the term, as it was used by the Framers in the late-eighteenth century, is more analogous to "dissemination." This understanding speaks to a more physical form of advancement, such as spatial movement or radial growth-for example, the progress of a fire as it spreads through a house or the progress of civilization as it expands across the globe—rather than quality-based improvement, which is better represented by the notion of raising the bar.

- 3 See Solum, supra note 2, at 45 ("[T]he 'Progress of Science' would ordinarily be understood as involving advances in learning or the continuation of scientific activity."). For the purposes of this Comment, it is assumed that the other words, most of which have become terms of art, have the meanings ascribed to them by Solum in his article, Congress's Power to Promote the Progress of Science: Eldred v. Ashcroft. Id. at 25–47. See infra notes 5–8 for the specific definitions of each term.
- The American Heritage Dictionary has the following entry for "progress":
 - 1. Movement, as toward a goal; advance.
 - 2. Development or growth: students who show progress.
 - 3. Steady improvement, as of a society or civilization: a believer in human progress. . . .
 - 4. A ceremonial journey made by a sovereign through his or her realm.
 - THE AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE 1401 (4th ed. 2000).
- See Solum, supra note 2, at 44 (stating that the relevant meaning of "promote" can be captured by the words "further," "advance," or "encourage," and also noting that "[n]o controversy has arisen with respect to the meaning of this particular term").
- 6 See supra note 3 and accompanying text.
- See Solum, supra note 2, at 51 (demonstrating that the historic usage of the term "science" was broader than how the term is used today, and how the term was used in the Framing era to indicate general knowledge and learning). "Science" was used in the Intellectual Property Clause to refer to the copyright power, which explains its pairing with the terms "Authors" and "Writings." In contrast, "useful Arts" was used to refer to the patent power; it is intuitively paired with "Inventors" and "Discoveries." See infra note 8.
- 8 See Karl B. Lutz, Are the Courts Carrying Out Constitutional Public Policy on Patents?, 34 J. PAT. OFF. SOC'Y 766, 771 (1952) ("It is clear...that 'useful arts' meant what we now call 'technology,' or 'applied science.'"); see also Robert I. Coulter, The Field of Statutory Useful Arts, 34 J. PAT. OFF. SOC'Y 487, 496 (1952) ("It seems clear that 'useful arts' (as a unitary technical term) embraced the so-called industrial, mechanical and manual arts of the 18th century....").

Part I investigates the original understanding of "progress." It begins by looking for clues within the drafting process of the Intellectual Property Clause during the Constitutional Convention. Through this process, several conclusions can be made as to what "progress" was not intended to mean—namely "improvement." In its place, "progress" as "dissemination" is consistent with the common usage of the word during the Framing era. Namely, progress was used most often in documents contemporary with the Constitution, such as the Pennsylvania Gazette and The Federalist Papers, to articulate the physical movements that we would, at present day, call "spread" or "dissemination." Thus, late eighteenth-century Americans reading the Intellectual Property Clause would have understood the term to take on this meaning.

Part I continues by examining the possible definitions of "progress" against the historical backdrop of patent law in several significant periods: (1) the colonial era, with a focus on the patent laws of Great Britain; (2) the Articles of Confederation period; and (3) the Framing era. These periods saw a significant shift in the community's understanding of the purpose served by establishing a patent regime. Patent laws began as a method of ensuring an influx of technology into an area. However, as the patent regime became more developed during the early and mid-eighteenth century, the philosophical justification for having an intellectual property system was sharply redefined. By the Revolutionary War, patent law ideology had shifted from stressing the benefits obtained from the introduction of novel tangible goods, to emphasizing the benefits obtained from the enrichment of public knowledge—in particular, the knowledge obtained from the introduction of information into the public domain when inventors participate in the patent system. In other words, intellectual property theorists now viewed the advantage of having a patent regime as being the spread of new information—not the production of new goods.

⁹ See Pamela O. Long, Openness, Secrecy, Authorship: Technical Arts and the Culture of Knowledge from Antiquity to the Renaissance 93 (2001) ("A developing patent system gave glassmakers good reasons for leaving Venice to ply their trade elsewhere.... The granting of limited monopolies enabled the state or city to possess... craft processes or inventions [to which they otherwise would not have had access].").

Similarly, in the copyright context the emphasis changed from the construction of the creative piece itself to the ability for others to access the piece. *See infra* notes 71–74 and accompanying text.

This historical background is particularly telling. When the Framers drafted the Intellectual Property Clause, they were not only using the term "progress" in the form that it was most commonly used during their time period, but they were also using it to convey a very specific idea concerning the societal function of intellectual property: the importance of disclosure. Put simply, their use of "progress" was deliberate. It was intentionally penned to express the importance of dissemination as a means to facilitate access, increase the availability of information, and ultimately secure rights for the public.

Part II analyzes the implications of reading "progress" as either "improvement" or "dissemination." Resolving the meaning of the Intellectual Property Clause is of paramount importance because many authorities having the power to shape patent law and policy look towards the Clause in performing their functions. Additionally, judges and scholars reference the Clause as the basis for rendering decisions or formulating academic thought. Thus, committing to a definition of "progress" as either "improvement" or "dissemination" is more than an academic exercise.

This importance is especially pronounced when a proposed policy can be categorized as pro-goods but anti-information, or vice versa. Part II examines such situations—namely, local working requirements and compulsory licensing. It begins by exploring the patent regime in India that existed until 2005, where local working requirements evinced a progress-as-improvement viewpoint. This is contrasted with modern American patent law, where policies have largely been defined by a progress-as-dissemination viewpoint. Notably, one of the key objectives pushed by the United States in treaty attempts to

¹¹ See, e.g., Patent Reform Act of 2007, S. 1145, 110th Cong. (2007) ("The Constitution explicitly grants Congress the power to 'promote the progress of science and useful arts['].... The object of the patent law today must remain true to the constitutional command...."); FED. TRADE COMM'N, TO PROMOTE INNOVATION: THE PROPER BALANCE OF COMPETITION AND PATENT LAW AND POLICY 15 (2003) ("The constitutional intention that patents 'promote the Progress of Science and useful Arts' should be taken into account in interpreting the scope of patentable subject matter under Section 101.").

¹² See, e.g., Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 535 U.S. 722, 730–31 (2002) ("This clarity [of patent right boundaries] is essential to promote progress, because it enables efficient investment in innovation."); Graham v. John Deere Co. of Kan. City, 383 U.S. 1, 5–6 (1966) ("The Congress in the exercise of the patent power may not overreach the restraints imposed by the stated constitutional purpose. Nor may it enlarge the patent monopoly without regard to the innovation, advancement or social benefit gained thereby.").

¹³ See infra note 16 and accompanying text.

create worldwide uniformity among intellectual property regimes was to combat policies that devalue the transfer of information in favor of the transfer of tangible goods. Such policies included local working requirements and compulsory licensing like those used in India.

Finally, this Comment examines the strange but recent emergence of local working requirements and compulsory licensing within the American patent system. This is a strong example of how an unguided approach to intellectual property policymaking can lead to conflicting policy results. Without direction as to what goals the patent law should seek to achieve, this conflict may be inevitable. This Comment suggests that policymakers should look to the Constitution and the meaning of "progress" to guide the future direction of patent law and reconcile policies that currently conflict. In doing so, dissemination is the key.

As a final introductory note, this Comment is focused mainly on the patent law component of intellectual property. However, both the patent and copyright regimes are derived from the Intellectual Property Clause and operate under the same general principle: a limited legal entitlement in exchange for the creation or dissemination—depending on the particular view of "progress" adopted—of unique and novel articles. As a result, most of the commentary can and should be applied with equal force to the copyright context.

I. DISCOVERING THE ORIGINAL UNDERSTANDING OF "PROGRESS"

This Part looks toward finding the original understanding of the term "progress"—namely, what late eighteenth-century Americans reading the Constitution would have understood the term to mean. While original understanding is only one of several methodologies to find the constitutional significance of a clause, it is at least a viable starting point to discuss what goals modern patent policy should be advancing.¹⁵

Until recently, there has not been much discussion concerning the meaning of the term "progress" as it applies to the Intellectual Property Clause. The term has generally been accepted as meaning

¹⁴ However, some historical evidence from early copyright laws is provided in Part II.C to supplement the overall argument.

As discussed earlier, courts, policymakers, and commentators look towards the Intellectual Property Clause when making decisions and formulating opinions. See supra notes 11–13 and accompanying text.

"qualitative or quantitative improvement in technology." When individual commentators address the meaning of "progress," they generally use this conventional meaning without explaining their reasoning for doing so or identifying why this definition is either appropriate or correct. This Part challenges this understanding by first discussing what "progress" was *not* intended to signify.

A. Negative Implications from the Rejected Proposals for the Intellectual Property Clause

Many commentators have concluded that the original intent of the Intellectual Property Clause is impracticably difficult to discern.¹⁸

- 16 See Robert A. Goldwin, Why Blacks, Women, and Jews Are Not Mentioned in the CONSTITUTION AND OTHER UNORTHODOX VIEWS 37-41 (1990) (finding it disappointing that the Framers believed it would be appropriate to promote the progress of science through monetary incentives rather than education, and notably assuming that "progress" refers to "quality improvement"). See generally In re Hogan, 559 F.2d 595, 606 (C.C.P.A. 1977) (assuming that "progress" means "advancement in technology" when stating: "To demand such restriction is merely to state a policy against broad protection for pioneer inventions, a policy both shortsighted and unsound from the standpoint of promoting progress in the useful arts, the constitutional purpose of the patent laws" (emphasis added)); Michael D. Birnhack, The Idea of Progress in Copyright Law, 1 BUFF. INTELL. PROP. L.J. 3, 7–22 (2001) (describing "progress" as the Enlightenment "idea of progress," which constituted improvement in quality or quantity); Margaret Chon, Postmodern "Progress": Reconsidering the Copyright and Patent Power, 43 DEPAUL L. REV. 97, 99 (1993) ("We can infer from the term 'Progress of Science and useful Arts' an Enlightenment faith in knowledge, whether it be knowledge for its own sake or for other ends."); Heath W. Hoglund, Patent Fee Diversion Crosses Constitutional Boundary, 83 J. PAT. & TRADEMARK OFF. SOC'Y 725, 725 (2001) (asserting that "Congress' power must be exercised in a way that promotes science and technological innovations," thus analogizing the term "progress," from the original constitutional grant, to "advancement"); Lutz, supra note 8, at 766 (arguing the same and "ascertain[ing] the true constitutional public policy on patents"); Arthur H. Seidel, The Constitution and a Standard of Patentability, 48 J. PAT. OFF. SOC'Y 5, 10 ("Dictionaries contemporaneous to the authors of the Constitution teach that the phrase means to advance or forward the course or procession of the helpful trades."); Solum, *supra* note 2, at 45 ("[T]he first Congress believed that the promotion of the progress of science meant encouragement of learning ").
- 17 See, e.g., ROBERT L. HARMON, PATENTS AND THE FEDERAL CIRCUIT § 1.2, at 11 (5th ed. 2001) (claiming that patent rights are conferred "for the national purpose of advancing the useful arts—the process today called technological innovation"); Edward C. Walterscheid, To Promote the Progress of Science and Useful Arts: The Background and Origin of the Intellectual Property Clause of the United States Constitution, 2 J. INTELL. PROP. L. 1, 52 (1994) ("[T]o promote the progress of useful arts presupposed an intent to advance or forward the course or procession of such trades.").
- See, e.g., EDWARD C. WALTERSCHEID, THE NATURE OF THE INTELLECTUAL PROPERTY CLAUSE: A STUDY IN HISTORICAL PERSPECTIVE 2 n.4 (2002) ("The substitution of 'intellectual property clause' for 'contract clause' renders Leonard Levy's pungent comments with respect to the contract clause highly apropos, namely: 'Original intent analysis of the [Intellectual Property Clause] . . . does not quite resemble the empty page describing the sex life

This is largely because the Intellectual Property Clause was unanimously approved without debate. Additionally, the ratification debates concerning the Constitution as a whole and the related literature barely mention the Clause. However, as Professor Dotan Oliar has demonstrated, the record that does exist from the committee drafting the Clause, however sparse, allows us to make at least some conclusions as to the intent of the Framers.

Oliar's research into the history of the Intellectual Property Clause shows that within the committee charged with drafting the Clause, there were eight proposals that were each incorporated into the final result.²² A close examination of these proposals, specifically those from James Madison and Charles Pinckney, allows modern investigators to reconstruct the Framers' intent.²³

of a steer, but scarcity of evidence makes the inquiry hardly more productive. Almost no one cared about the [Intellectual Property Clause] either at the Constitutional Convention or during the ratification controversy. Those advocating ratification and those opposed to it could not have been more apathetic than they were about the clause." (alterations in original) (quoting LEONARD LEVY, ORIGINAL INTENT AND THE FRAMERS' CONSTITUTION 124 (1988))).

See Malla Pollack, Purveyance and Power, or Over-Priced Free Lunch: The Intellectual Property Clause as an Ally of the Takings Clause in the Public's Control of Government, 30 Sw. U. L. REV. 1, 100 (2000) ("Like a modern jury verdict, the Intellectual Property Clause came out of a black box. All we have is the input and the output."); Edward C. Walterscheid, To Promote the Progress of Science and Useful Arts: The Anatomy of a Congressional Power, 43 IDEA 1, 2 (2002) ("[The Intellectual Property Clause] was first presented to the convention less than two weeks before it adjourned, and was unanimously approved without debate."). Edward C. Walterscheid, a noted intellectual property historian, wrote:

Since none of the delegate-proposed plans contained any reference to congressional power over copyright and patent, the question naturally arises as to how the Intellectual Property Clause came to be included in the Constitution. Little has been written on the point. The reason for the dearth of commentary undoubtedly is that so little is actually known about how its inclusion came about. Contemporaneous records such as Madison's notes indicate that it was adopted nemine contradicente and without debate.

Walterscheid, *supra* note 17, at 26 (footnote omitted).

- See Malla Pollack, What Is Congress Supposed to Promote?: Defining "Progress" in Article I, Section 8, Clause 8 of the United States Constitution, or Introducing the Progress Clause, 80 NEB. L. REV. 754, 766 (2001) ("The Supreme Court has never purported to define the individual word "progress" in the Progress Clause.").
- 21 See generally Dotan Oliar, Making Sense of the Intellectual Property Clause: Promotion of Progress as a Limitation on Congress's Intellectual Property Power, 94 GEO. L.J. 1771, 1810 (2006) ("While the accepted wisdom conjectures that the Framers did not intend the Progress Clause as a limitation, the process of the Clause's framing . . . suggests that, in fact, the Progress Clause was intended as a limitation." (footnote omitted)).
- 22 See id. at 1776 ("The Convention's record reveals eight proposals for Congressional powers . . . which anticipate the eventual text and structure of the Clause.").
- 23 See id. ("[E]xamining Madison and Pinckney's initial proposals closely, along with other Convention proceedings and proximate historical events, makes it possible to reconstruct

Oliar used his research to show that the "progress" component of the Intellectual Property Clause was added as a substantive limitation on the "exclusive rights" component of that Clause. ²⁴ His overall argument is that negative implications can be derived from Madison and Pinckney's proposals by noting what made it through to the final version, and what was ultimately rejected. This Comment proposes that a different analysis can be conducted using this same approach. Using these same foundation materials and parallel reasoning, it is possible to elucidate what the Framers did *not* intend "progress" to mean.

The term "progress" does not appear in any of the proposals authored by Madison or Pinckney. However, the words "advancement," "encouragement," and "promotion" are found scattered within the proposals. Borrowing Oliar's logic, the Framers must have intended the term "progress" to mean something entirely different from advancement, encouragement, or promotion. Otherwise, they would have simply used one of these terms, which were in the initial proposals. In Oliar's words but in a different context, "the Framers as a group changed the proposals before adopting them, suggesting disagreement."

Moreover, if the Framers had intended to incorporate the notion of "advancement," "encouragement," or "promotion" within the In-

- 24 See supra note 2 for a discussion of whether the introductory phrase of the Intellectual Property Clause acts as a substantive limitation on the Clause as a whole. Oliar specifically argued that if the Framers had intended for the patent power to be unlimited, and especially not limited by the notion of "progress," then they could have adopted a version of the Clause that is as unqualified as Madison or Pinckney's proposals. However, as we know, the final Intellectual Property Clause includes both a "progress" component and an "exclusive rights" component. Oliar concluded that this change implies that the Framers rejected such unrestricted patent powers. See Oliar, supra note 21, at 1811 ("[T]he Framers as a group changed the proposals before adopting them, suggesting disagreement.").
- 25 This is found within Madison's proposed encouragement power: "To encourage, by proper præmiums and provisions, the advancement of useful knowledge and discoveries." See Oliar, supra, at 1789.
- 26 This term is also found within Madison's proposed encouragement power. See id.
- 27 This term is included in Pinckney's proposed education power: "To establish seminaries for the promotion of literature and the arts and sciences." See id.
- 28 Id. at 1811.
- 29 Pollack argues that all of these terms ("advancement," "encouragement," and "promotion") essentially refer to an improvement in quality or quantity. See Pollack, supra note 20, at 790 ("My research evidences that an eighteenth century writer of English who

the Framers' intent regarding the Clause's unique structure and the role of the Progress Clause within it.").

tellectual Property Clause, they could have easily done so by omitting the word "progress" altogether: the leading term "promote" already captured these ideas. The Framers chose instead to include the word "progress." Thus, their use of "progress" within the Intellectual Property Clause was not for the purpose of calling for the "advancement," "encouragement," or "promotion" of science and the useful arts. They were hoping to invoke something entirely different. The next subsection develops what that definition could be.

B. Linguistic Evidence Within Documents Contemporary with the Constitution

Linguistic evidence provides a useful starting point for analyzing the original understanding of the term "progress" as it is used within the Intellectual Property Clause. This subsection reviews work that has already been conducted by other commentators on the subject. The work of these commentators is based on the thesis that the meaning of the term "progress" as it is used in the Intellectual Property Clause is best informed by the most common usage of the word during the Framing era.

1. The Pennsylvania Gazette

In her search for original meaning, Pollack observed that conventional starting points were unhelpful. First, she noted that the term "progress" is not used anywhere else in the entirety of the Constitution, ³¹ and thus it is not possible to look at other uses of the word within the same text to glean its meaning. Similarly, "progress" is not used within the historical predecessors to the Intellectual Property Clause, ³² namely the English Statute of Monopolies ³³ and the Statute

wanted to indicate a desire for qualitative improvement would have been more likely to use some form of 'improvement,' 'perfection,' or 'advancement.'" (footnotes omitted)).

As in, "Congress shall have Power...To *promote* the Progress of Science and useful Arts...." U.S. CONST. art I, § 8, cl. 8 (emphasis added).

³¹ See Pollack, supra note 20, at 766 n.60 ("This Clause is the only use of the word 'progress' in the Constitution.").

³² See id. at 782 ("[T]he historical precursors of the Progress Clause do not use the same language.").

The 1624 English Statute of Monopolies has been recognized as the forerunner to American patent law. See Malla Pollack, The Multiple Unconstitutionality of Business Method Patents: Common Sense, Congressional Consideration, and Constitutional History, 28 RUTGERS COMPUTER & TECH. L.J. 61, 91 (2002) ("The Intellectual Property Clause of the Constitution is a descendent of the 1624 English Statute of Monopolies...."); Richard H. Stern, Scope-of-Protection Problems with Patents and Copyrights on Methods of Doing Business, 10

of Anne.³⁴ Finally, she observed that the Supreme Court has never formally defined the term in the context of the Intellectual Property Clause.³⁵ With these sources unavailable, Pollack opted instead to look towards a document contemporary with the Constitution: the *Pennsylvania Gazette*. She posited that since "'progress' is not a technical word of the legal art, . . . the word usage of the *Pennsylvania Gazette* [is] the best currently available evidence of what 1789 American residents would have understood from the word 'progress' in the [Intellectual Property] Clause."³⁶

Pollack searched the surviving issues of the *Pennsylvania Gazette*³⁷ and overwhelmingly found that the most common usage of the word was in the context of describing what we would refer to today as the "spread" of a destructive force.³⁸ From these results, she argued that "[t]his pattern of use is inconsistent with the persistent assumption that in colonial North America 'progress' meant 'qualitative im-

FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 105, 149 n.169 (1999) (acknowledging that the patent system is "ultimately based" on the Statute of Monopolies); Edward C. Walterscheid, Defining the Patent and Copyright Term: Term Limits and the Intellectual Property Clause, 7 J. INTELL. PROP. L. 315, 336 (2000) (discussing the Statute of Monopolies as "an antecedent... for the Intellectual Property Clause"); cf. Graham v. John Deere Co. of Kan. City, 383 U.S. 1, 5 (1966) (describing the Intellectual Property Clause as having been "written against the backdrop of practices—eventually curtailed by the Statute of Monopolies—of the Crown in granting monopolies to court favorites in goods or businesses which had long before been enjoyed by the public").

- The English Statute of Anne is the recognized precursor to American copyright statutes. See 1 PAUL GOLDSTEIN, COPYRIGHT § 1.13.1, at 1:27 (2d ed. 2000).
- 35 See Pollak, supra note 20, at 766 ("The Supreme Court has never purported to define the individual word 'progress' in the Progress Clause."); John R. Therien, Exorcising the Specter of a "Pay-Per-Use" Society: Toward Preserving Fair Use and the Public Domain in the Digital Age, 16 BERKELEY TECH. L.J. 979, 995 (2001) ("[C]ourts have been loath to give any explicit content to the term 'Progress.").
- Pollack, supra note 20, at 798. In the same paragraph, Pollack heralded the Pennsylvania Gazette as "the New York Times of the American colonies." Id. She later noted that "the text of the proposed federal Constitution, the Federalist Papers, and numerous other ratification discussions were printed in the Pennsylvania Gazette." Id. at 799.
- 37 See id. at 798. Specifically, she "ran a full text search for just that one word in all existing issues of the Pennsylvania Gazette printed from its inception through the end of the eighteenth century. [She] located 575 uses of the word 'progress." Id.
- 38 Id. at 799 ("By far, the most common use of 'progress' was for destructive physical movement. The single most common word in the phrase 'the progress of . . . ' is 'fire.' The Gazette speaks of the 'progress of a fire' when a modern newspaper would report its 'spread.' Fifty-one times fire made a 'progress' through some human construction, such as a house. Eighty-five times the geographical 'progress' was by an armed man, group of men, or an entire army—quite often the enemy's troops. Thirteen times some illness made a 'progress.' The Gazette also reported the 'progress' of other destructive entities—such as ravenous insects, bad weather, and possibly hostile ships." (omission in original) (footnotes omitted)).

provement."³⁹ Instead, she concluded that "'progress' was overwhelming [sic] used to mean something other than qualitative improvement.... The most common usage was 'spread,' or some other type of physical movement."⁴⁰

2. The Federalist Papers

Senator Hatch and Professor Lee proceeded under the same fundamental logic as Pollack—that the original understanding of the word "progress" provides the best insight into the role that the term plays within the Intellectual Property Clause, and that the best way to discern the original meaning is through evaluating the term's use within Framing-era texts. Their work centered instead on *The Federalist Papers*, which, due to the fact that they were authored by the Framers themselves, arguably makes this approach more directly correlated with original meaning.

Hatch and Lee conducted a full-text search of *The Federalist* and found results consistent with Pollack's. ⁴¹ Namely, they found that the predominant use of "progress" within *The Federalist* was in reference to "physical advancement," "physical movement," and "spread," often of some destructive force. ⁴² For example, *Federalist No. 8*, authored by Alexander Hamilton, spoke of the "rapid desolation which used to mark the progress of war."

C. Evidence from the Historical Context of Eighteenth Century Intellectual Property Thought

Pollack, Hatch, and Lee's arguments have been challenged on the grounds that even if the most common meaning of the term "progress" was "spread" or "dissemination," it does not necessarily mean that the Framers used the word in that particular context within the

³⁹ Id.

⁴⁰ Id. at 803.

⁴¹ See Orrin G. Hatch & Thomas R. Lee, "To Promote the Progress of Science": The Copyright Clause and Congress's Power to Extend Copyrights, 16 HARV. J.L. & TECH. 1, 8 (2002) ("A full-text search for 'progress' in the electronic version of The Federalist papers reveals twenty-four instances of the word in this important work.").

⁴² See id. at 8–9 ("The predominant use of the term in *The Federalist* is in reference to an advancement or movement, as in a physical or metaphorical journey. . . . Most of the other uses of the term in *The Federalist* also connote physical movement or 'spread,' often of some mechanism of destruction.").

THE FEDERALIST No. 8, at 61 (Alexander Hamilton) (Clinton Rossiter ed., 2003).

Intellectual Property Clause.⁴⁴ This subsection addresses these concerns by providing context to the word "progress," showing that "progress" as "dissemination" had a very particular meaning in the field of patents during the eighteenth century. Therefore, the Framers not only used the word in its most common form, but they used it particularly to address a specific concept of intellectual property—disclosure.

The American intellectual property system had developed by 1787⁴⁵ to the point where policy makers, courts, and learned individuals believed that the value of the intellectual property regime was in providing access to new ideas, rather than the production or availability of a finished product. In other words, the commodity that intellectual property law was producing was *information*, not *goods*. This was a significant shift from the previous understanding in which the intellectual property system was believed beneficial solely because it introduced new products, arts, and literature to society, ⁴⁶ whether holistically or through encouraging foreign craftsmen and guild members to import technologies into a country. ⁴⁷

Many commentators attribute this paradigm shift to the English case *Liardet v. Johnson*,⁴⁸ which was authored by the celebrated judge Lord Mansfield in 1778. The case is often viewed as marking a turning point in the way people thought about patents.⁴⁹ It demonstrated "a major change in the economic role of patents, for it shifted the emphasis from the introduction of finished products into commerce to the new and useful *information* to the technical arts."⁵⁰ Lord Mansfield's decision posited that the social good of providing a patent system is not in the provision of novel technologies, but the contribu-

⁴⁴ See infra note 95 and accompanying text.

^{45 1787} being the year of the Constitutional Convention.

⁴⁶ See ROBERT P. MERGES & JOHN F. DUFFY, PATENT LAW AND POLICY: CASES AND MATERIALS 6 (4th ed. 2007) ("Under the original patent systems, society's benefit was the introduction of a new art or technology into the country.").

⁴⁷ See, e.g., id. at 4-5 ("The chief minister under Elizabeth I, William Cecil (Lord Burghley), used patent grants as an inducement for foreign artisans to bring continental technologies into England.").

⁴⁸ There is no official report of this case. However, there are several indirect records that exist due to contemporary accounts by observers. See, e.g., Liardet v. Johnson, (1780) 62 Eng. Rep. 1000 (K.B.). Specific language in this case is further discussed in the following subsection, detailing direct evidence from the British patent and copyright systems of this shift in paradigm. See infra Part I.C.1.

⁴⁹ Edward C. Walterscheid provides a good account of the history of the case. See Edward C. Walterscheid, The Early Evolution of the United States Patent Law: Antecedents (Part 3), 77 J. PAT. & TRADEMARK OFF. SOC'Y 771 (1995).

⁵⁰ MERGES & DUFFY, supra note 46, at 257.

tion of information and know-how to technological fields. This was novel in that it shifted the emphasis away from the tangible goods themselves.

As a result of this shift in emphasis, patent law has come to be described as a contract between the inventor and society. In exchange for the right to exclude others from use of the subject matter described within the patent, the inventor must fully disclose to the public all of the fundamental aspects of the invention. In this way, society gains access to the inventive concepts during the patent term and the ability to freely use the innovation after the expiration of the term. This allows society to further develop and improve upon the inventive concepts, and identify means by which these concepts can be designed around to achieve the same result.

This idea of a contract became increasingly prevalent in the literature as well as in judicial decisions being published at the time; it was also reflected in policies and statutes.⁵² This Comment argues that it was reflected as well in the Constitution, through the use of the term "progress" in the Intellectual Property Clause. This change in outlook was substantiated by evidence from the British patent and copyright systems that were in place during the colonial period through the Framing era,⁵³ state copyright provisions that were enacted during the Articles of Confederation period,⁵⁴ and judicial and policy statements made during the Framing era or soon after.⁵⁵

1. The British Patent System

Developments in the British intellectual property system before and during the Framing era provide valuable insights into the mindset of the Framers regarding intellectual property. As a former Brit-

⁵¹ See generally Vincenzo Denicolò & Luigi A. Franzoni, *The Contract Theory of Patents*, 23 INT'L REV. L. & ECON. 365 (2004). Later on in the century, jurists and scholars began describing this concept as a quid pro quo. See, e.g., AK Steel Corp. v. Sollac, 344 F.3d 1234, 1244 (Fed. Cir. 2003) ("[A]s part of the quid pro quo of the patent bargain, the applicant's specification must enable one of ordinary skill in the art to practice the full scope of the claimed invention."); Jeanne C. Fromer, *Patent Disclosure*, 94 IOWA L. REV. 539, 553 (2009) ("The accepted understanding in patent policy and doctrine is that disclosure of a patented invention to the public—and its dedication to the public after expiration of the patent term—is part of a quid pro quo the patentee must provide to gain the broad patent right."). This terminology was not used during the colonial period or the Framing era, though.

⁵² See infra notes 53-55.

⁵³ See infra Part I.C.1.

⁵⁴ See infra Part I.C.2.

⁵⁵ See infra Part I.C.3.

ish colony, it was natural for a young United States to look towards England's patent system as a starting point to create its own. In fact, the British patent and copyright systems became the basis for the systems enacted within the several States during the Articles of Confederation period. Later, they were the inspiration for the Intellectual Property Clause of the Constitution, and the federal patent and copyright statutes enacted by Congress soon after ratification. More specific to this Comment, scholars have maintained that early Americans embraced England's new-found emphasis on the importance of disclosure within their own patent laws. Second

As referenced earlier, *Liardet v. Johnson*⁵⁹ has often been cited as a decision signaling the transition from a products-oriented paradigm in England to one in which information—and access to that information—is paramount. *Liardet*'s fame is attributed to Lord Mansfield's declaration that a patent should be invalidated if the specification fails to fully and adequately describe how to make and use the invention claimed in the patent.⁶⁰ As a result, the role of the specification in English patent law was considerably strengthened.⁶¹

Many scholars have heralded the decision as being a significant turning point that was crucial to the development of modern patent law. Others have argued instead that *Liardet* was not the landmark that it is often made out to be, as it was actually the culmination of more holistic seventeenth and eighteenth-century developments in patent law. Either way, scholars agree that by the end of the eight-

⁵⁶ See e.g., MERGES & DUFFY, supra note 46, at 7 ("Patents were among the many British legal concepts introduced to the American colonies between 1640 and 1776.").

Walterscheid, supra note 17, at 3 ("The Framers drafted the Intellectual Property Clause against the immediate backdrop of the Articles of Confederation but within the overall framework of the English, colonial, and state practices regarding patents and copyright."); see also supra note 33.

⁵⁸ See Walterscheid, supra note 49, at 777 ("[I]t would be the English practice [of requiring disclosure through a specification] that would come to be relied on in the early development of the American patent law.").

⁵⁹ See supra note 48 and accompanying text.

⁶⁰ See Walterscheid, supra note 49, at 796–97 (discussing the impact of Liardet v. Johnson).

⁶¹ See id. at 792 n.99 ("As early as 1732 a patent was voided for failure to have a specification that set forth the nature of the invention.").

⁶² See E. Wyndham Hume, On the Consideration of the Patent Grant, Past and Present, 13 LAW Q. REV. 313, 317 (1897) ("Liardet v. Johnson [was] a trial which may be regarded as a landmark in the history of English patent law").

⁶³ See John N. Adams & Gwen Averley, The Patent Specification: The Role of Liardet v. Johnson, 7 J. LEGAL HIST. 156 (1986) (arguing that Liardet v. Johnson was not as revolutionary as other scholars have suggested and that the English patent system had long been shifting towards a more specification-focused doctrine); see also Walterscheid, supra note 49, at 792 ("[A]s the [eighteenth] century progressed, an at times subtle but nonetheless clear tran-

eenth century, the English patent system was primarily disclosure-focused rather than products-oriented. This can be seen in late eighteenth-century English decisions such as *Turner v. Winter* in 1787, where it was avowed that "[t]he consideration, which the patentee gives for his monopoly, is the benefit which the public are [sic] to derive from his invention after his patent is expired: and that benefit is secured to them by means of a specification of the invention." In 1795, it was concluded in *Boulton v. Bull* that "[t]he specification is the price which the patentee is to pay for the monopoly."

Finally, a paper written by English scholar John Clennel at the turn of the nineteenth century explored the importance of disclosure and public accessibility of information to innovation. The author began by cataloguing "inventions [that had been] lost to the world through non-disclosure, and assert[ed] that the *progress* of science through the eighteenth century was [achieved] through disclosure." This demonstrates the ongoing resilience and robustness of the contract paradigm in England through the Framing era.

2. State Copyright Law During the Articles of Confederation Period

The effect of the English focus on disclosure and dissemination of information is reflected in early American intellectual property statutes that were enacted during the Articles of Confederation period. This subsection deals with early state copyright statutes. However, the patent and copyright doctrines were viewed as highly related during that period, and this view prevails today.⁶⁸ Thus, an emphasis on dis-

- sition with regard to the crown's views on the consideration for the patent grant occurred. Specifically, the crown came increasingly to recognize that working the invention was no longer the consideration for the grant, but that instead wider dissemination of new skills to the public in general should be the desideratum.").
- See Adams & Averley, supra note 63, at 169 (discussing the notion during late-eighteenth century England that "[a] patent [was] an agreement between the King and the inventor that the subject will put the public in possession of a useful secret"); Walterscheid, supra note 49, at 801 ("Liardet v. Johnson led the way, but by the end of the century it had become settled law that the consideration for the patent was not the working of the invention per se but rather the disclosure of how to make and use it in the specification.").
- 65 (1787) 99 Eng. Rep. 1274, 1276 (K.B.).
- 66 (1795) 126 Eng. Rep. 651, 656 (C.P.).
- 67 See Adams & Averley, supra note 63, at 170 (emphasis added) (discussing John Clennel's Expediency of Disclosing the Process of Manufacturies, written in 1807 and presented to the Literary and Philosophical Society of Newcastle upon Tyne).
- 68 See, e.g., Adam MacLuckie, Comment, United States v. Microsoft: A Look at the Balancing Act Between Copyright Protection for Software, Intellectual Property Rights and the Sherman Antitrust Act, 2 HOUS. BUS. & TAX L.J. 415, 429–31 (2002) (stating that "patents and copyrights

semination in the copyright context reflects an analogous belief that dissemination is important in the patent context.

In 1783, the Continental Congress issued a resolution recommending that copyright laws be enacted in each State. In its statement, the Continental Congress reported that it was "persuaded that . . . the protection and security of literary property would greatly tend to encourage genius, [and] to promote useful discoveries . . . [in] arts and commerce." As a result, twelve States enacted copyright statutes during the Articles of Confederation period. The structure and content of these statutes demonstrate that intellectual property law was focused on the dissemination of information, rather than the creation of products, literature, or art.

Five of the early copyright statutes during this period included a provision for voiding an author's copyright if sufficient copies of a work were not made locally available at reasonable prices.⁷¹ This condition demonstrates that during the Articles of Confederation period, the purpose of the copyright provisions was to spread an author's work and to ensure that it was made accessible. Failure to disseminate one's work was enough to void the privilege of a copyright.

Also notable, the prefaces of the copyright statutes enacted by Connecticut, Georgia, New Hampshire, and New York all stated that the purpose of the provisions was to "encourage men of learning and genius to *publish* their writings." Thus, these laws emphasized publication of works, rather than mere creation. Presumably, creation was not enough to ensure public access to a work, and therefore merely creating a piece was not enough to merit the conferral of

are similar in many respects" and listing commonalities); Louis L. Wu, Comment, Enhanced Damages for Willful Patent Infringement—An Issue for Judge or Jury?, 33 U.S.F. L. REV. 435, 447–48 (1999) (discussing the similarities between patents and copyrights as forms of intellectual property and arguing that due to shared features, both should be treated similarly). This linkage is also demonstrated by the fact that the Framers later chose to confer both copyright and patent powers in the same breath: the Intellectual Property Clause

⁶⁹ Walterscheid, supra note 17, at 20 (citation omitted).

See Irah Donner, The Copyright Clause of the U.S. Constitution: Why Did the Framers Include It with Unanimous Approval?, 36 AM. J. LEGAL HIST. 361, 374 (1992); L. Ray Patterson, Copyright Overextended: A Preliminary Inquiry into the Need for a Federal Statute of Unfair Competition, 17 U. DAYTON L. REV. 385, 404 (1992).

⁷¹ See Pollack, supra note 20, at 786 ("[F]ive [of the early copyright statutes] make provision for overriding the author's privilege if he fails to make sufficient copies of his work available locally at reasonable prices.").

⁷² See Hatch & Lee, supra note 41, at 11 (emphasis added).

⁷³ See id. at 10-11 ("[M]any of the state laws spoke of encouraging the publication of works, not of their creation.").

copyright privileges.⁷⁴ Publication was a more definite basis to ensure at least some extent of dissemination.

Altogether, this evidence demonstrates that England's fixation on dissemination of information had come to America prior to the Constitutional Convention. As the next subsection demonstrates, this paradigm continued to prevail past the Framing era.

3. The Framing Period and Beyond

One of the first sources that constitutional law scholars look towards to discern intent when the Constitution provides ambiguous answers is *The Federalist Papers*. However, the only mention of the Intellectual Property Clause in *The Federalist* does not speak to the meaning of "progress." The passage that references patents and copyrights states:

The utility of this power will scarcely be questioned. The copyright of authors has been solemnly adjudged, in Great Britain, to be a right of common law. The right to useful inventions seems with equal reason to belong to the inventors. The public good fully coincides in both cases with the claims of individuals.

Accordingly, this is not an appropriate source to discern the operation of the term "progress" in patent and copyright law. This Comment looks instead towards other available sources from the Framing era.

While there are no Supreme Court cases available concerning intellectual property during the Framing era for obvious reasons, decisions from the period immediately following ratification directly invoke the quid pro quo paradigm by depicting the patent system as a

⁷⁴ Creation is distinct from publication. Creation of a piece occurs as soon as the creative work is fixed on a tangible medium. Publication, in contrast, requires active steps to be taken towards public exposure of the creative piece. Diaries and letters, for example, are created but not published. They would not be eligible for copyright protection under these early statutes.

⁷⁵ But see James W. Ducayet, Publius and Federalism: On the Use and Abuse of The Federalist in Constitutional Interpretation, 68 N.Y.U. L. REV. 821, 821–22, 824–25 (1993) (objecting to the overuse of and excessive reliance on The Federalist Papers in constitutional interpretation).

[&]quot;[A]ll the commentary set forth in *The Federalist* concerning the content of the Constitution, that with respect to the intellectual property clause, is among the briefest." WALTERSCHEID, *supra* note 18, at 2.

THE FEDERALIST NO. 43 (James Madison), *supra* note 43, at 268.

⁷⁸ Neither the Supreme Court nor the federal patent and copyright statutes existed until after the ratification of the Constitution.

contract between the individual inventor and society. These decisions, which could be described as within the Framing generation, showcase the Framers' patent philosophies. In *Evans v. Eaton*, the Supreme Court stated that the purpose of the specification requirement of the patent system is to make known the manner of constructing the machine (if the invention is of a machine) so as to enable artizans to make and use it, and *thus to give the public the full benefit of the discovery after the expiration of the patent*. This language identifies the disclosure requirement as the source of the public's benefit from the patent system. *Grant v. Raymond*, a subsequent Supreme Court decision, similarly refers to the disclosure requirement as a fundamental underpinning of patent law. The Court made several references to the contract metaphor, stating:

To promote the progress of useful arts, is the interest and policy of every enlightened government. . . . The laws which are passed to give effect to this purpose ought, we think, to be construed in the spirit in which they have been made; and to execute the contract fairly on the part of the United States, where the full benefit has been actually received. . . . The public yields nothing which it has not agreed to yield; it receives all which it has contracted to receive. 83

Thus, the Supreme Court during the Framing generation had fully endorsed the contract paradigm of patent law which prioritizes the generation of information over the generation of new products.

*Pennock v. Dialogue*⁸⁴ offers additional support, albeit indirectly. The case stands for the proposition that an inventor cannot use trade secrets to protect an innovation until that strategy becomes inconvenient, and then apply for patent protection.⁸⁵ For patent rights to be appropriate, the inventor must patent and disclose immediately.⁸⁶ To reach this result, the court reasoned:

If an inventor should be permitted to hold back from the knowledge of the public the secrets of his invention; if he should for a long period of years retain the monopoly, and make, and sell his invention publicly, and thus gather the whole profits of it, relying upon his superior skill and

More recent patent law cases have continued to emphasize this theme. See, e.g., J.E.M. Ag. Supply, Inc. v. Pioneer Hi-Bred Int'l, Inc., 534 U.S. 124, 142 (2001) ("The disclosure required by the Patent Act is 'the quid pro quo of the right to exclude.'" (citing Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470, 484 (1974))).

^{80 20} U.S. (7 Wheat.) 356 (1822).

⁸¹ *Id.* at 433–34 (emphasis added).

^{82 31} U.S. (6 Pet.) 218 (1832).

⁸³ Id. at 241-42.

^{84 27} U.S. (2 Pet.) 1 (1829).

⁸⁵ Id

⁸⁶ Id.

knowledge of the structure; and then, and then only, when the danger of competition should force him to secure the exclusive right, he should be allowed to take out a patent, and thus exclude the public from any farther use than what should be derived under it during his fourteen years; it would materially retard the progress of science and the useful arts, and give a premium to those who should be least prompt to communicate their discoveries.

The emphasized phrase would not make sense in light of the rest of the statement if "progress" meant a "qualitative improvement" in technology. In this case, the technology at issue had already been improved by the invention. In fact, the public had the ability to purchase the invention for several years prior to the patent application. If we allow an applicant to patent an invention after a significant period of selling his or her product, "progress" can only be retarded if we understand "progress" to mean "dissemination of information" and the ability of the public to access this information. Certainly, a qualitative improvement to a technological innovation cannot be undone by a postdated patent application. It would therefore be nonsensical for "progress" to mean an "advancement in technology" in this context. However, allowing such a postdated application would delay public access to the innovative concepts (as opposed to the innovative product), and the ability of the public to use this knowledge. "Progress," in this instance, can only mean "spread" or "dissemination." Most notably, the Supreme Court directly quoted from the Constitution in its mention of "progress." 88 Therefore, it can be concluded that the Court was speaking of "progress" in a constitutional sense.

The first patent statute, which was passed in 1790,⁸⁹ provides further evidence of the emphasis on the spread of ideas. It did not require patent applicants to have made the apparatus they were claiming to have invented in the application.⁹⁰ Further, the patent system

⁸⁷ Id. at 19 (emphasis added).

⁸⁸ Specifically, the Court stated "the main object [of patent law] was 'to promote the progress of science and useful arts;' and this could be done best, by giving the public at large a right to make, construct, use, and vend the thing invented." *Id.*

⁸⁹ See P.J. Federico, The First Patent Act, 14 J. PAT. OFF. SOC'Y 237, 238 (1932) ("The [first] patent act was passed and was approved by the President on April 10, 1790."). Interestingly, Rhode Island ratified the Constitution on May 29, 1790. Thus, the first patent statute came before the United States had its thirteenth State.

⁹⁰ Instead, only a model was required to supplement the application. The first patent statute stated:

And be it further enacted, That the grantee or grantees of each patent shall, at the time of granting..., deliver to the Secretary of State a specification in writing, containing a description, accompanied with drafts or models, and explanations

has never required an applicant to produce or sell the invention after issuance, or otherwise use the patent to tangible ends. ⁹¹ Taken altogether, the patent system does not require the inventor to ever make the invention described in the patent, present it, use it, or sell it. In contrast, the patent system has always required disclosure, a complete and enabling specification, and public access to that information after the patent's issuance. ⁹² These considerations support the notion that the actual technology and finished product were merely secondary goals of the patent system—the primary goal was publication and spread of knowledge.

Interestingly, the first American patent treatise, which was published in 1810, directly supports the paradigm that patents are a trade in information and not actual products. It states:

It will not impeach the validity of a patent that another first made the discovery, which is the subject of it, if in truth, the patentee were the first to make it public; for *it was the disclosure of new inventions which the statute meant to encourage.* It is therefore a provision, and indispensable condition in all patents, that the patentee shall ascertain the nature of his in-

and models . . . of the thing or things, by him or them invented or discovered, and described as aforesaid, in the said patents

Patent Act of 1790, ch. 7, § 2, 1 Stat. 109–112 (1790). It was enough that the applicant had experimented to the point where a finished product could be made. The key question was whether the application had enough content to enable one skilled in the art to make and use the claimed invention without undue experimentation, rather than whether the applicant had him or herself created a finished product:

[The] specification shall be so particular, and said models so exact, as not only to distinguish the invention or discovery from other things before known and used, but also to enable a workman or other person skilled in the art or manufacture, . . . to make, construct, or use the same, to the end that the public may have the full benefit thereof, after the expiration of the patent term

Id. (emphasis added).

- See id. (omitting a requirement that applicant use his or her instructions to recreate the invention, but rather merely requiring that "a workman or other person skilled in the art or manufacture" be able to do so). Notably, the current system also does not require the inventor to have made the invention at the time of application; it also does not require an inventor to ever use, create, or sell the patented product. See 35 U.S.C. § 111-22 (2000) (specifying the requirements for a successful patent application).
- 92 Currently, most patent applications are published after eighteen months of filing unless the patentee expressly elects for it not to be published and forfeits the ability to apply for patents in other countries. See 35 U.S.C. § 122 (2000) ("[E]ach application for a patent shall be published, in accordance with procedures determined by the Director, promptly after the expiration of a period of 18 months from the earliest filing date for which a benefit is sought under this title."). This only maintains the confidential status of the application until the patent issues. In the event of abandonment, the application remains confidential. Id.

vention, and in what manner it is to be performed. The specification is the price which the patentee is to pay for his monopoly.⁹³

The emphasis on disclosure as payment for a patent monopoly⁹⁴ is directly aligned with Lord Mansfield's opinion in *Liardet*. Further, the concept that prior private use by another individual will not negate a finding of novelty for an applicant is notable. The fact that someone else has previously created the product, even if privately, shows that the patentee him or herself did not advance technology. If the patent system were focused on the improvement of technology merely for the sake of advancement, it would not reward such an applicant with a patent. However, the patent system in 1810 was informationfocused. The fact that an applicant is the one who has disclosed the information publicly makes him or her deserving of the patent grant. In essence, this stresses the notion that the patent system was enacted to encourage public disclosure, rather than merely advancement of technology. This treatise was released in 1810, roughly twenty years after the Framers met in the Constitutional Convention. Thus, this document is one of the best pieces of evidence showing that during the Framing era, it was not improvements in technology but the public availability of information that was viewed as the benefit of a patent system.

D. The Original Understanding of "Progress"

As mentioned earlier, Pollack's work was criticized on the basis that even if the most common usage of the word "progress" was to express an idea of "spread" or "dissemination," it does not necessarily follow that the Framers used the term in this manner within the context of the Intellectual Property Clause. ⁹⁵ Namely, the criticism was that common usage does not take into account the context and circumstances of patent law during that time. ⁹⁶ This Part has sought to

⁹³ Thomas G. Fessenden, An Essay on the Law of Patents for New Inventions 48–49 (1st ed. 1810) (emphases added).

⁹⁴ Modern literature dissociates the direct linkage between a patent and a monopoly. For an economic explanation as to why in most cases it is incorrect to say that a patent is a conferral of a monopoly power, see Kenneth W. Dam, *The Economic Underpinnings of Patent Law*, 23 J. LEGAL STUD. 247, 250 (1994).

⁹⁵ See Solum, supra note 2, at 46-47 ("It is difficult to understand, however, how [Pollack's] evidence could be decisive on the relevant question.... Evidence that the primary or most frequent usage of "progress" in the founding era was spatial or geographic does not answer the question as to whether that was the use made by those who framed or ratified the constitution.").

⁹⁶ See id.

answer that critique. In this Comment, I agree with critics that context does matter. Likewise, I attempted to provide that context to further enrich the argument that "progress" means "dissemination." Pollack, Hatch, and Lee assess the word "progress" in terms of what the word primarily meant to late eighteenth-century Americans. This Comment analyzes what the word "progress" would have meant to those Americans, but with specific reference to the intellectual property community.

II. USING PROGRESS TO INFORM MODERN POLICY-MAKING

There are two fundamental questions underlying any patent system: Should there be a patent system? And if so, what ends should that system serve?

Of course, the Framers were presented with these questions at the Constitutional Convention. Their answers to those questions can be discerned by analyzing what they left behind to guide our current patent system—the Intellectual Property Clause. In this, the use of the term "progress" is evidence they believed that the purpose of the patent system was to generate a rich public domain to spark innovation.

The Framers' answers to the question of why we should have a patent system can certainly provide a useful starting point for us to construct our own answers. The creation of our own framework, whether or not it mirrors that of the Framers, is important and necessary to creating a coherent policy scheme for implementing modern patent law. This is especially true given the multiple possible justifications behind the patent system and the multiple proffered goals.⁹⁷

The two primary goals are creating the incentive to innovate, see ROBERT P. MERGES, PETER S. MENELL & MARK A. LEMLEY, INTELLECTUAL PROPERTY IN THE NEW TECHNOLOGICAL AGE 11 (4th ed. 2006) ("The principal objective of much of intellectual property law is the promotion of new and improved works—whether technological or expressible."), and creating the incentive to disclose, see Grant v. Raymond, 31 U.S. (6 Pet.) 218, 247 (1832) ("[A] correct specification and description of the thing discovered . . . is necessary in order to give the public, after the [patent term] shall expire, the advantage for which the privilege is allowed "). However, the latter notion has been criticized by commentators who question whether scientists or other inventors scour through patent specifications hoping to come up with the next big idea. See, e.g., Rebecca S. Eisenberg, Analyze This: A Law and Economics Agenda for the Patent System, 53 VAND. L. REV. 2081, 2093 (2000) ("Courts sometimes tout the disclosure as the quid pro quo for the patent monopoly, as if the reason we offer patents is to get disclosures of technologies that would otherwise be kept secret rather than simply to promote research and development. But this claim cries out for closer scrutiny."). However, the response is that disclosure does not only occur through the patent specification. It can be achieved through

One can certainly imagine a situation in which these driving goals conflict. For example, among the two primary goals of promoting improvements in technology and promoting the exchange of information, this can occur where the acquisition of improved technological goods is pursued so vigorously that it restricts or undercuts any incentives created for disclosure. The compulsory licensing regime of India's pre-2005 patent law provides a real-world illustration of such a policy.

A. A Case Study from India: Compulsory Licensing and Local Working

Up until 2005, 98 compulsory licensing was used within India in combination with a local working requirement to promote the development of a national technological base. Under these policies, the Indian government required all patents to be locally worked, or in other words, practiced domestically. 99 This meant that the patented items must be manufactured within India's borders, and the resulting goods must be made available in Indian markets. 100 Otherwise, the government would have the right to either revoke a non-practiced patent, or to issue a compulsory license to any outside party seeking to utilize the patent within these guidelines. 101 In contrast, most highly developed countries, including the United States, do not in-

advertisements, publications, and other forms of publicity that the inventors are encouraged to engage in when they are confident in the strength of their legal entitlement.

Other justifications for the patent regime exist. They include creating the incentive to commercialize inventions and creating the incentive to invest in research and development. See generally Suzanne Scotchmer, Standing on the Shoulders of Giants: Cumulative Research and the Patent Law, 5 J. ECON. PERSP. 29 (1991) (documenting specific examples where commercially successful products are the result of cumulative research over long periods of time and arguing that creating an incentive for companies to invest in research and development is the true aim of the patent laws). Finally, it has also been espoused that the patent system actually benefits society by "fostering a cultural obsession with technological novelty." MERGES & DUFFY, supra note 46, at 13 (internal quotation marks omitted) (quoting GEORGE BASALLA, THE EVOLUTION OF TECHNOLOGY 124 (1988)).

- Thereafter, India moved into compliance with World Trade Organization ("WTO") requirements under the Trade Related Aspects of Intellectual Property Rights ("TRIPs") agreement. See Manjeet Kripalani, Pharma Karma: Tougher Patent Protection Laws Are Spurring Rapid Growth in New Drug Research Across India, BUS. WK., Apr. 18, 2005, at 20 ("India's new patent protection law, which brings Indian legislation in line with World Trade Organization norms[,]...took effect in late March [2005]...."). See infra note 113 for more information on TRIPs.
- 99 See Srividhya Ragavan, Of the Inequals of the Uruguay Round, 10 MARQ. INTELL. PROP. L. REV. 273, 290–93 (2006) (describing India's compulsory licensing and local workings regime).
- 100 See id.
- 101 See id.

corporate local working requirements within their patent laws. One may validly obtain a patent and never practice or otherwise make use of it—the ongoing validity of a patent is not made contingent upon the use of the patent, and is not related to use in any other way.¹⁰²

The reason why local working requirements and compulsory licensing systems have been prevalent in India and other developing countries is that "local realities in underdeveloped nations cause patent regimes to operate differently than in developed nations." Local working was seen in India as necessary to enable national industrialization by "minimiz[ing] importation of foreign goods." This forced multinational corporations seeking to access the Indian market to manufacture within India, thereby contributing to India's industrial development by erecting factories, importing high-tech equipment, and training the native workforce. ¹⁰⁵

A rational inquiry in response to these positive effects is why local working and compulsory licensing have not found a place in the patent laws of highly developed countries. A much cited reason is that these policies have a detrimental effect upon the incentive to disclose. While local working and compulsory licensing provide assurances of tangible goods within a particular country, these systems markedly weaken the incentive for individuals to obtain patents where the ability to commercialize the innovation is uncertain. In highly developed countries like the United States, it can be assumed that this constitutes the majority of patents, as very few issued patents are commercially exploited. This number has been reported to be as low as 15%. 108

The reason behind this low rate of commercialization can be found in business practices that have developed in highly developed countries. For example, it has become common practice of large corporations to invest in obtaining large patent portfolios. Within a particular portfolio, a small number of patents, sometimes only one,

¹⁰² See supra notes 90–91 and accompanying text. This is subject to one recent exception, which is embodied in the Supreme Court's decision in eBay Inc. v. MercExchange, L.L.C., 547 U.S. 388 (2006), discussed infra Part II.B.

¹⁰³ Ragavan, supra note 99, at 282.

¹⁰⁴ Id. at 286.

¹⁰⁵ Id.

¹⁰⁶ Id. at 288.

¹⁰⁷ See World Intellectual Property Organization, The Impact of the International Patent System on Developing Countries: A Study by Getachew Mengistie, A/39/13 Add. 1, at 9 (reporting figures as low as 15% for the commercial utilization of patents in the United States, Canada, and the United Kingdom collectively).

¹⁰⁸ Id.

are commercially exploited. The majority are used to prevent competitors from developing similar products by creating a proprietary buffer-zone around the practiced patent or patents.¹⁰⁹ This patent "real estate" is maintained to create distance between the company and its competitors, ensuring that the product is distinctive.

A local working requirement would eliminate this practice. Any patent obtained by a company as a proprietary place-holder could be immediately forfeited to a competitor because of the patent owner's Some would argue that this would be beneficial—there would be more options available for commercially successful products if competitors could commandeer commercially un-worked patents. However, where would these patents come from? With this incentive structure at play, companies would have no reason to patent alternate constructions of their primary patents. Instead, they would be encouraged to keep as much secret as possible. The result is wasteful. For example, if a patent holder discovers an alternate way to achieve the same result of his or her patent, in a local workings and compulsory licensing scheme, it is in the patentee's best interest to keep that alternative secret. Competitors must then engage in identical research to achieve the same result, resulting in an overall waste in resources. 110

Also adding to the low rate of commercialization, many patents are obtained before a plan to commercialize a product is finalized. These companies simply do not know what will be profitable, what

See LINDSAY MOORE & LESLEY CRAIG, INTELLECTUAL CAPITAL IN ENTERPRISE SUCCESS: STRATEGY REVISITED 128 (2008) ("[C] reating a patent thicket is... about deliberately blocking a natural path of incursion with an incremental invention. Thus, it is undertaken more as a defensive strategy than as the natural course of technological development. In some cases, the proliferation of blocking patents has become so extensive, and the quality of the patents created so minimal, that these patents are referred to disparagingly as 'junk patents,' to show how they litter a technological landscape only to block competition without providing meaningful invention or innovation to the related technology."); see also ANTITRUST, PATENTS AND COPYRIGHT: EU AND US PERSPECTIVES 88 (François Lévêque & Howard A. Shelanski eds., 2005) (describing an alternate strategy, called patent flooding, where a firm patents around a competitor's technology so the competitor's ability to practice that technology is limited).

Coincidentally, one of the purposes of the U.S. patent system is to eliminate this waste by serving as a notice system. It shows what has already been researched and developed so that other parties can focus on things other than what has already been done. See Kelly Casey Mullally, Patent Hermeneutics: Form and Substance in Claim Construction, 59 FLA. L. REV. 333, 349–50 (2007) (detailing the role that notice plays in patent law); see also SmithKline Beecham Corp. v. Apotex Corp., 403 F.3d 1331, 1361 n.7 (Fed. Cir. 2005) ("[P]ublic notice is required as a predicate to the validity of a patent." (citing Jurgens v. CBK, Ltd., 80 F.3d 1566, 1570 n.2 (Fed. Cir. 1996))).

will be approved by the appropriate regulatory bodies such as the U.S. Food and Drug Administration, or what consumers will demand in the future. They often seek a patent for an invention as soon as it is possible and continue to develop a commercial plan for the invention after the patent issues. Not infrequently, whether a patent is obtained for a product plays an integral role in determining whether the company moves forward with commercialization. In such a case, the ability to market the product without risk of direct replication by competitors is valuable in itself.

A local working requirement in these cases puts the cart before the horse by forcing a commercialization decision to occur before all of the information about the commercial potential of the product has been explored. To obtain a patent, it would be necessary for companies to commit to commercializing a product without full knowledge of the product's marketability. Companies would either commit early without all of the necessary information or decide not to take the risk at all. Either decision is inefficient because it is not well-informed. Companies would alternatively be encouraged to delay patenting until they have finalized their commercialization plans, if at all. Otherwise, applying for a patent would put the company at risk of funding the research and development of a product it cannot reasonably make, only to see the patent fall into the hands of a competitor.

Altogether, local working and compulsory licensing are detrimental to the incentive to disclose. They create a situation where parties are disincentivized from patenting anything except for innovations that they are sure to commercialize. The result is that the breadth of disclosure through the patent system is curbed. Companies are hesitant to disclose where there is a chance that this information may be directly commandeered by other parties. In India, however, the other result of local working and compulsory licensing is that technology is brought into the country. The incentive to innovate within the country's borders is increased. India, when faced with the choice between products and information, chose products. The United States has largely chosen information.

Clearly, the goals of a developing country are different than those of a highly developed nation. The need for an immediate influx of tangible goods and of the capacity to manufacture those goods is more pronounced in developing countries. That is why the local working requirement and compulsory licensing regime have been used to beneficial ends within these countries. These countries value access and availability of innovative goods more than the fostering and development of a rich public domain that can be used to spur fu-

ture innovation. It can be said that they are choosing goods now, at the expense of goods later.

In contrast, highly-developed countries like the United States have made the opposite decision. They have largely found that a rich public domain through disclosure corresponds to an increase in the quality and quantity of future innovation, and choose to maximize this relationship. Notably, the Indian committee charged with developing India's patent law policy in 1957 attributed the American lack of local workings and compulsory licensing to "the immense wealth and abundance of resources" in the United States. It further concluded that "the United States could afford not to adopt compulsory licensing in a manner that other [developing] countries could not. It is a luxury to be able to forgo immediate availability for tangible goods in order to ensure future innovation.

B. Bringing the Case Study Home: Compulsory Licensing in the United States After eBay Inc. v. MercExchange L.L.C.

Could a local working and compulsory licensing regime occur in the United States? Before addressing that question, it is notable that the United States has a history of being adamantly opposed to this possibility, at least in the positions it has taken in its international relations. During the Uruguay Round Negotiations of the Agreement on Trade Related-Aspects of Intellectual Property Rights ("TRIPs"), the United States championed the view that local workings requirements should be internationally banned as a part of any country's patent law. This is in sharp contrast to the position of developing countries, which almost uniformly wanted local working require-

¹¹¹ Ragavan, supra note 99, at 288.

¹¹² Id

These negotiations gave rise to TRIPs, a treaty that seeks to harmonize patent laws internationally in order to make them more accessible to multinational corporations and other international patent-seekers. See Christopher S. Mayer, Comment, The Brazilian Pharmaceutical Industry Goes Walking from Ipanema to Prosperity: Will the New Intellectual Property Law Spur Domestic Investment?, 12 Temp. Int'l. & Comp. L.J. 377, 380–81 (1998) ("The primary impetus of TRIPS was to bring various developing countries such as China, India, and Brazil into compliance with minimal intellectual property standards."). For a general review of TRIPs, see DUNCAN MATTHEWS, GLOBALISING INTELLECTUAL PROPERTY RIGHTS: THE TRIPS AGREEMENT (2002).

¹¹⁴ See Paul Champ & Amir Attaran, Patent Rights and Local Working Under the WTO TRIPS Agreement: An Analysis of the U.S.-Brazil Patent Dispute, 27 YALE J. INT'L L. 365, 369 ("The United States was almost alone . . . [in] seeking to bar any possible obligation or remedy there might be for a patentee's failure to work locally.").

ments "to be a mandatory *obligation* of any patentee." The United States was also of the view that compulsory licensing should be "totally barred . . . as a remedy for a patentee's failure to work locally."

1. eBay, Inc. v. MercExchange, L.L.C.

Developments in United States patent law following the recent Supreme Court decision in *eBay Inc. v. MercExchange, L.L.C.*¹¹⁷ stand in stark contrast to the American position in TRIPs. Before *eBay*, the Federal Circuit had consistently held that the proper relief for patent law infringement was an injunction.¹¹⁸ Only in the most extenuating circumstances would equitable relief, such as a compulsory license, be justified.¹¹⁹ The Supreme Court's decision in *eBay* completely altered these conditions, holding instead that it is inappropriate to categorically grant injunctive relief whenever there is patent infringement.¹²⁰ Instead, the Court asserted that courts must apply a four-factor test in determining what type of relief will be available in each particular case. To obtain injunctive relief under *eBay*, a patentee must show:

(1) that it has suffered an irreparable injury; (2) that remedies available at law, such as monetary damages, are inadequate to compensate for that injury; (3) that, considering the balance of hardships between the plain-

¹¹⁵ *Id*.

¹¹⁶ Id. at 375. The ultimate result was a compromise: a general rule against local working and compulsory licensing was established, as were several exceptions to this rule.

^{117 547} U.S. 388 (2006).

¹¹⁸ See Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1247 (Fed. Cir. 1989) ("It is the general rule that an injunction will issue when infringement has been adjudged, absent a sound reason for denying it.").

¹¹⁹ See MercExchange, L.L.C. v. eBay, Inc., 401 F.3d 1323, 1338–39 (Fed. Cir. 2005) (outlining a general rule in which "courts will issue permanent injunctions against patent infringement absent exceptional circumstances"), vacated, 547 U.S. 388 (2006). For examples of extenuating circumstances that have justified such relief in the past, see infra notes 136–38 and accompanying text.

¹²⁰ eBay, 547 U.S. at 393–94. The jury had found willful infringement on the part of the defendants and awarded MercExchange \$35 million in damages. MercExchange, L.L.C. v. eBay, Inc., 275 F. Supp. 2d 695, 698–99 (E.D. Va. 2003), rev'd in part, 401 F.3d 1323 (Fed. Cir. 2005), vacated, 547 U.S. 388 (2006). The district court lowered this number slightly to \$29.5 million and refused to enjoin further patent infringement despite the plaintiff's request for an injunction. Id. at 710–15, 722. The case was appealed to the Federal Circuit, where the court reversed the district court's decision not to issue an injunction, holding instead that "[b]ecause the 'right to exclude recognized in a patent is but the essence of the concept of property,' the general rule is that a permanent injunction will issue once infringement and validity have been adjudged." MercExchange, 401 F.3d at 1338 (quoting Richardson, 868 F.2d at 1246–47).

tiff and defendant, a remedy in equity is warranted; and (4) that the public interest would not be disserved by a permanent injunction. ¹²¹

If the plaintiff does not satisfy these criteria, equitable relief, including compulsory licensing, is appropriate. 122

Two concurring opinions were issued in *eBay*. Chief Justice Roberts's concurrence, joined by Justices Scalia and Ginsburg, suggested that the application of the four-factor test should still result in the issuance of an injunction in the wide majority of patent infringement cases.¹²³ He noted that "[w]hen it comes to discerning and applying [the four factor test], in this area as others, 'a page of history is worth a volume of logic.'"¹²⁴

Justice Kennedy's concurrence, joined by Justices Stevens, Souter, and Breyer, suggested that new types of patents and forms of infringement may alter the nature of a court's analysis under the fourpart test. In particular, he stated that for non-practicing entities, courts should consider the role that the infringing component plays in the overall scheme of a product. This part of the opinion is worth quoting as a reference for the next subsection:

An industry has developed in which firms use patents not as a basis for producing and selling goods but, instead, primarily for obtaining licensing fees. For these firms, an injunction, and the potentially serious sanctions arising from its violation, can be employed as a bargaining tool to charge exorbitant fees to companies that seek to buy licenses to practice the patent. When the patented invention is but a small component of the product the companies seek to produce and the threat of an injunction is employed simply for undue leverage in negotiations, legal damages may well be sufficient to compensate for the infringement and an injunction may not serve the public interest.

¹²¹ *eBay*, 547 U.S. at 391.

¹²² Id. at 391-93.

¹²³ See id. at 394–95 (Roberts, C.J., concurring) ("From at least the early 19th century, courts have granted injunctive relief upon a finding of infringement in the vast majority of patent cases. This long tradition of equity practice is not surprising, given the difficulty of protecting a right to exclude through monetary remedies that allow an infringer to use an invention against the patentee's wishes—a difficulty that often implicates the first two factors of the traditional four-factor test." (internal quotation marks omitted)).

¹²⁴ *Id.* at 395 (quoting N.Y. Trust Co. v. Eisner, 256 U.S. 345, 349 (1921)).

¹²⁵ Id. at 395–96 (Kennedy, J., concurring) ("In cases now arising trial courts should bear in mind that in many instances the nature of the patent being enforced and the economic function of the patent holder present considerations quite unlike earlier cases.").

¹²⁶ Id. at 396-97.

¹²⁷ Id. (citations omitted).

Justice Kennedy also warned against liberally issuing injunctions for business method patents. He stated that their "vagueness and suspect validity... may affect the calculus under the four-factor test." 129

2. The Legacy of eBay, Inc. v. MercExchange, L.L.C.

What is interesting for the purposes of this Comment is not the *eBay* decision itself, but the field of patent law after *eBay*. Lower courts responding to the decision have largely continued to issue injunctions after finding that the patentee has satisfied the requirements of *eBay*'s four-factor test. However, among courts that have denied injunctions and have issued licenses instead, "the single factor that [they] look to most often to support [their decisions] is the patentee's failure to commercially practice the patented invention." Suspiciously, this practice looks very similar to compulsory licensing in response to a lack of local working, the exact thing that the United States was trying to place an international ban on during the Uruguay Round of the TRIPs negotiations. 132

To date, there have been twenty-nine decisions issuing an injunction, and fourteen decisions denying one. In contrast, before

¹²⁸ *Id.* ("[I]njunctive relief may have different consequences for the burgeoning number of patents over business methods").

¹²⁹ Id. at 397.

See Christopher A. Cotropia, Compulsory Licensing Under TRIPS and the Supreme Court of the United States' Decision in eBay v. MercExchange, in PATENT LAW AND THEORY: A HANDBOOK OF CONTEMPORARY RESEARCH 570 (Toshiko Takenaka ed., 2008) (reporting that "[m]ost courts after eBay are still issuing permanent injunctions, with a permanent injunction currently being issued at the rate of three cases for every case that denies an injunction").

¹³¹ Id. Cotropia cited the following court decisions as examples of situations when courts have looked towards a failure to commercially exploit a patent as a reason for denying a permanent injunction: Visto Corp. v. Seven Networks, Inc., No. 2:03–CV–333–TJW, 2006 WL 3741981, at *4 (E.D. Tex. Dec. 19, 2006); Paice LLC v. Toyota Motor Corp., No. 2:04–CV–211–DF, 2006 WL 2385139, at *5 (E.D. Tex. Aug. 16, 2006), aff d in part, vacated in part on other grounds, 504 F.3d 1293 (Fed. Cir. 2007); z4 Techs., Inc. v. Microsoft Corp., 434 F. Supp. 2d 437, 440–41 (E.D. Tex. 2006). Id. at 570, n.77.

¹³² See notes 114, 116 and accompanying text.

These cases include: Verizon Servs. Corp. v. Vonage Holdings Corp., 503 F.3d 1295 (Fed. Cir. 2007); Unitronics (1989) (R "G) Ltd. v. Gharb, 532 F. Supp. 2d 25 (D.D.C. 2008); Acumed LLC v. Stryker Corp., No. 04-513, 2007 WL 4180682 (D. Or. Nov. 20, 2007); Martek Biosciences Corp. v. Nutrinova Inc., 520 F. Supp. 2d 537 (D. Del. 2007); Sundance, Inc. v. Demonte Fabricating Ltd., No. 02-73543, 2007 WL 3053662 (E.D. Mich. Oct. 19, 2007); Baden Sports, Inc. v. Kabushiki Kaisha Molten, No. 06-210, 2007 WL 2790777 (W.D. Wash. Sept. 25, 2007); Johns Hopkins Univ. v. Datascope Corp., 513 F. Supp. 2d 578 (D. Md. 2007); Allan Block Corp. v. E. Dillon & Co., 509 F. Supp. 2d 795

eBay, denials of injunctions were "essentially non-existent."¹³⁵ This point deserves further discussion. The automatic conferral of injunctive relief before *eBay* was so settled that the Federal Circuit declared that "courts have in rare instances exercised their discretion to deny injunctive relief in order to protect the public interest." Cases where the public interest weighed so heavily against an injunction such that a denial was appropriate included a case where an injunction would have cut off the supply of medical supply test kits that

(D. Minn. 2007); 800 Adept, Inc. v. Murex Sec., Ltd., 505 F. Supp. 2d 1327 (M.D. Fla. 2007); MPT, Inc. v. Marathon Labels, Inc., 505 F. Supp. 2d 401 (N.D. Ohio 2007); MGM Well Servs., Inc. v. Mega Lift Sys., L.L.C., 505 F. Supp. 2d 359 (S.D. Tex. 2007); Muniauction, Inc. v. Thomson Corp., 502 F. Supp. 2d 477 (W.D. Pa. 2007); Commonwealth Scientific & Indus. Research Org. v. Buffalo Tech. Inc., 492 F. Supp. 2d 600 (E.D. Tex. 2007); Sanofi-Synthelabo v. Apotex Inc., 492 F. Supp. 2d 353 (S.D.N.Y. 2007); Brooktrout, Inc. v. Eicon Networks Corp., No. 03-59, 2007 WL 1730112 (E.D. Tex. June 14, 2007); O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co., No. 04-32, 2007 WL 869576 (E.D. Tex. Mar. 21, 2007); Ortho-McNeil Pharm., Inc. v. Mylan Labs. Inc., 2007 WL 869545 (D.N.J. Mar. 20, 2007); Novozymes A/S v. Genencor Int'l, Inc., 474 F. Supp. 2d 592 (D. Del. 2007); Transocean Offshore Deepwater Drilling, Inc. v. GlobalSantaFe Corp., No. 03-2910, 2006 WL 3813778 (S.D. Tex. Dec. 20, 2006); Visto Corp. v. Seven Networks, Inc., No. 03-333, 2006 WL 3741891 (E.D. Tex. Dec. 19, 2006); Black & Decker Inc. v. Robert Bosch Tool Corp., No. 04-7955, 2006 WL 3446144 (N.D. Ill. Nov. 29, 2006); Smith & Nephew, Inc. v. Synthes (U.S.A.), 466 F. Supp. 2d 978 (W.D. Tenn. 2006); Rosco v. Mirror Lite Co., No. 96-5658, 2006 WL 2844400 (E.D.N.Y. Sept. 29, 2006); 3M Innovative Props. Co. v. Avery Dennison Corp., No. 01-1781, 2006 WL 2735499 (D. Minn. Sept. 25, 2006); Litecubes, L.L.C. v. Northern Lights Prods., Inc., No. 04-CV-00485 ERW, 2006 WL 5700252 (E.D. Mo. Aug. 25, 2006); Floe Int'l, Inc. v. Newmans' Mfg. Inc., No. 04-5120, 2006 WL 2472112, (D. Minn. Aug. 23, 2006); Tivo Inc. v. Echostar Commc'ns Corp., 446 F. Supp. 2d 664 (E.D. Tex. 2006); Telequip Corp. v. Change Exchange, No. 5:01-CV-1748, 2006 WL 2385425 (N.D.N.Y. Aug. 15, 2006); Wald v. Mudhopper Oilfield Servs., Inc., No. CIV-04-1693-C, 2006 WL 2128851 (W.D. Okla. July 27, 2006).

These include: Acumed LLC v. Stryker Corp., 483 F.3d 800 (Fed. Cir. 2007); Monsanto Co. v. Scruggs, 459 F.3d 1328 (Fed. Cir. 2006); Cygnus Telcomms. Tech. v. Worldport Commc'ns, No. C-02-00144 RMW, 2008 U.S. Dist. LEXIS 28207 (N.D. Cal. Feb. 22, 2008); Nichia Corp. v. Seoul Semiconductor, Ltd., No. 06-0162 MMC, 2008 U.S. Dist. LEXIS 12183 (N.D. Cal. Feb. 7, 2008); ResQNet.com, Inc. v. Lansa, Inc., 533 F. Supp. 2d 397 (S.D.N.Y. 2008); Respironics, Inc. v. Invacare Corp., No. 04-0336, 2008 U.S. Dist. LEXIS 1174 (W. Pa. Jan 8. 2008); MercExchange, L.L.C. v. eBay, Inc., 500 F. Supp. 2d 556 (E.D. Va. 2007); Praxair, Inc. v. ATMI, Inc., 479 F. Supp. 2d 440 (D. Del. 2007); IMX, Inc. v. LendingTree, LLC, No. 03-1067, 2007 WL 62697 (D. Del. Jan. 10, 2007); Sundance, Inc. v. DeMonte Fabricating Ltd., No. 02-73543, 2007 WL 37742 (E.D. Mich. Jan. 4, 2007); Voda v. Cordis Corp., No. CIV-03-1512, 2006 WL 2570614 (W.D. Okla. Sept. 5, 2006); Paice LLC v. Toyota Motor Corp., No. 2:04-CV-211, 2006 WL 2385139 (E.D. Tex. Aug. 16, 2006), aff'd in part, vacated in part on other grounds, 504 F.3d 1293 (Fed. Cir. 2007); Finisar Corp. v. DirecTV Group, No. 1:05-CV-264, slip op. (E.D. Tex. July 6, 2006); z4 Techs. v. Microsoft Corp., 434 F. Supp. 2d 437 (E.D. Tex. 2006).

¹³⁵ Cotropia, supra note 130, at 576.

¹³⁶ Rite-Hite Corp. v. Kelley Co., 56 F.3d 1538, 1547 (Fed. Cir. 1995).

were used ubiquitously in hospitals,¹³⁷ and another where an injunction would force the City of Milwaukee to dump raw sewage into Lake Michigan.¹³⁸ Clearly, *eBay* has had a marked result on lower court decisions, as the number of cases where a district court has denied a motion for a permanent injunction is not insubstantial as it had been in the past. It is too soon to definitively tell, but it appears that Chief Justice Roberts's prediction—that injunctions will largely continue to issue in the same proportion as before the *eBay* decision—was inaccurate.

Moreover, it looks as if lower courts have looked towards Justice Kennedy's concurrence for guidance. The district court's opinion in Paice LLC v. Toyota Motor Corp. 139 provides a good example. The case involved a patent for a hybrid electric vehicle drive train that was issued to a non-practicing entity, Paice LLC. The jury found that Toyota had infringed Paice's patent in some of its Toyota Prius, Toyota Highlander, and Lexis RX 400h models. 140 The plaintiff made a motion for a permanent injunction. After applying the four-factor test consistent with eBay, the district court denied the motion. The case presented the precise fact pattern that Justice Kennedy had warned district courts against. Paice was a non-practicing entity using its patent "not as a basis for producing and selling goods but, instead, primarily for obtaining licensing fees." Moreover, the patented invention was "but a small component of the product the [defendant sought] to produce." The district court did not explicitly say so, but it would not have been surprising if in its decision, it had continued down this path and concluded, quoting eBay, that there was a threat that an "injunction [would be] employed [to the effect of giving the plaintiff] undue leverage in negotiations," and that therefore "legal damages [were] sufficient to compensate for the infringement," and finally that "an injunction [did] not serve the public interest." ¹⁴³

What the district court did determine in applying *eBay*'s four factor test was that "the patentee's failure to produce and sell the patented component or compete with Toyota meant that any future

¹³⁷ Hybritech, Inc. v. Abbott Labs., No. AK (PX), CV 86-7461, 1987 WL 123997 (C.D. Cal. July 14, 1987), aff'd, 849 F.2d 1446 (Fed. Cir. 1988).

¹³⁸ City of Milwaukee v. Activated Sludge, Inc., 69 F.2d 577 (7th Cir. 1934).

¹³⁹ No. 2:04—CV-211–DF, 2006 WL 2385139 (E.D. Tex. Aug. 16, 2006), aff d in part, vacated in part on other grounds, 504 F.3d 1293 (Fed. Cir. 2007).

¹⁴⁰ Paice LLC v. Toyota Motor Corp., 504 F.3d 1293, 1299 (Fed Cir. 2007).

¹⁴¹ eBay, Inc. v. MercExchange, L.L.C., 547 U.S. 338, 396 (2006) (Kennedy, J., concurring).

¹⁴² Id.

¹⁴³ Id. at 396-97.

harm from Toyota's infringement was easily remedied by a damage award." The district court fixated on the fact that the "[p]laintiff [did] not compete for market share with the accused vehicles, [and] concerns regarding loss of brand name recognition and market share similarly [were] not implicated." It further held that "[f]or these reasons, [p]laintiff has not demonstrated that it [would] suffer irreparable harm in the absence of an injunction."

The court used the same consideration in determining the balances of the hardships factor. To shape its inquiry, the court focused on the fact that the defendant actually practiced the (infringed) patent and the fact that the plaintiff did not. The district court stated that issuing an injunction would

ignore[] the reality that two of the accused vehicles were introduced to the market during the 2006 model year and enjoining their sales [would] likely interrupt not only Defendants' business but that of the related businesses, such as dealers and suppliers. . . . And the Court [found] that enjoining Defendants [would] damage their reputation. 147

In terms of damage to the plaintiff, the only factor that the court considered was whether the plaintiff would go out of business if an injunction did not issue. Finding that this was not a convincing threat, the court ruled that "the balance of hardships tip[ped] decidedly in favor of [d]efendants." Notably, this language is not unusual post-*eBay*. 150

Thus, local working was directly implicated in two of the four factors in the *eBay* test. Commentators have noted that "[t]he courts all go through the four-factor analysis in an attempt to stay true to the holding in *eBay*. But the practical effect is that this single fact—lack of commercialization—dictates the result in most cases." While the non-working of a patent will not automatically result in a compulsory license under *eBay*, 152 it is notable that local working does play a significant role in the determination.

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144 Cotropia, supra note 130, at 570.
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¹⁴⁵ Paice, 2006 WL 2385139, at *5.

¹⁴⁶ Id

¹⁴⁷ Id.

¹⁴⁸ Id.

¹⁴⁹ Id.

¹⁵⁰ Cotropia, supra note 130, at 571 ("Other district courts have followed a similar analysis after eBay [as that in Paice], focusing on the patentee's failure to practice the patented invention to justify a denial of a permanent injunction.").

¹⁵¹ Id.

This result would be contrary to Continental Paper Bag Co. v. Eastern Paper Bag Co., 210 U.S. 405 (1908). Notably, Continental Bag's primary holding was affirmed in eBay. eBay Inc. v.

Commentators have criticized *eBay* based on this result. For example, Janice Mueller wrote:

One of the more controversial aspects of the current U.S. patent law reform movement is whether the availability of injunctive relief in cases of patent infringement should depend in some measure upon whether the patent owner itself is manufacturing the patented invention. Some reform proponents would prevent a non-manufacturing "patent troll" from obtaining injunctive relief against infringers. This too is a form of domestic working requirement, or at least a differential treatment of those who do not work their patents. It would be rather ironic if the U.S. were to challenge India's domestic working requirements while at the same time contemplating a partial abrogation of remedies available to its own non-working patentees.

Others have found that while the United States may still be in compliance with the TRIPs even after *eBay*, the decision may still "impact the credibility of the United States" strong stance against compulsory licensing by other Member States." ¹⁵⁴

3. Curing the Confusion with "Progress"

What happened in *eBay* and what has happened since *eBay* are prime examples of what may occur when patent law is not structured according to a set of organized principles. Inconsistent policies are instituted, in this case potentially bringing American patent law into non-compliance with its international obligations. Additionally, it is highly likely that this new emphasis on commercialization as a criterion for whether or not injunctive relief is appropriate may chill the incentive for inventors and businesses to disclose their innovations. ¹⁵⁵

While this Comment does not take a strong position for or against compulsory licensing in the United States, it does take the position that there needs to be a better mechanism for achieving uniformity

MercExchange L.L.C., 547 U.S. 338, 393 (2006). After *eBay*, there have been instances where a lower court allowed an injunction to issue notwithstanding the patentee's failure to practice the patent. *See* Commonwealth Scientific & Indus. Research Org. v. Buffalo Tech. Inc., 492 F. Supp. 2d 600 (E.D. Tex. 2007); *see also* Cotropia, *supra* note 130, at 569 ("[A] Patentee's lack of commercial practice of the patented technology does not *automatically* deny an injunction. On the other side, a finding of patent infringement does not *automatically* result in a grant of an injunction." (emphases added) (footnote omitted)).

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¹⁵³ Janice M. Mueller, The Tiger Awakens: The Tumultuous Transformation of India's Patent System and the Rise of Indian Pharmaceutical Innovation, 68 U. PITT. L. REV. 491, 597 (2007).

¹⁵⁴ Cotropia, supra note 130, at 582.

Data will have to be obtained to definitively determine whether there is such an impact. However, it is highly likely that such a result is occurring, especially in the case of increasingly patent-savvy corporations.

among American patent policies. One way this Comment proposes that these objectives can be achieved is through elaborating on which goals the patent laws are supposed to achieve, and in which order those goals are to be priorities. This Comment suggests that one way to determine that priority is by looking towards the Constitution, which directs that the purpose of patent law is the promotion of "progress," "progress" of course meaning "dissemination."

CONCLUSION

"In the absence of a guiding principle, the choices made are, at best, inconsistent.... At worst, the absence of a guiding principle fosters arbitrariness or prejudice." ¹⁵⁶

The laws governing the United States patent system are currently in a considerable state of flux. Congress is currently considering the Patent Reform Act, ¹⁵⁷ a bill which would significantly reshape the procedures concerning patent prosecution and litigation, if passed. Moreover, the Supreme Court has recently taken a notable and renewed interest in patent law jurisprudence. ¹⁵⁸

During times of change, it becomes increasingly important for those responsible for the creation of policy, law, and doctrine to be committed to furthering the fundamental goals of the intellectual property system. In this case, the patent law policy goals summarized in the preceding text, namely the creation of incentives to innovate and disclose, have been advanced in the past. However, these goals sometimes conflict because they each prioritize various aspects of the system differently. An examination of current judicial opinions, commentary, and policy papers demonstrates that those in charge of making patent law policy lack a uniform approach to determining which goals to pursue in different instances. 59 Specific policy goals are paraded around when they are in accordance with a decision, but there is no mention of them when they are inconvenient. The result is arbitrary and inconsistent, as demonstrated by America's adamant insistence that compulsory licensing in patent law should be banned as a condition to membership in the WTO, while the Supreme Court

Paul H. Robinson, Hybrid Principles for the Distribution of Criminal Sanctions, 82 Nw. U. L. REV. 19, 20 (1988).

¹⁵⁷ H.R. 1908, 110th Cong. (2007); S. 1145, 110th Cong. (2007).

¹⁵⁸ See generally, John F. Duffy, The Festo Decision and the Return of the Supreme Court to the Bar of Patents, 2002 Sup. Ct. Rev. 273 (2002).

¹⁵⁹ See, e.g., supra notes 11-12, 16, 19, and accompanying text.

develops a regime suspiciously similar to compulsory licensing to be applied by American courts.

This Comment argues that where policy goals conflict, it is important for decision makers to have a method of determining which objectives to follow at the expense of others. However, this suggestion is admittedly demanding—how will patent law policymakers select what fundamental goals to favor over the others, and in which order? This Comment proposes that one way priorities can be set is by looking towards the Constitution and what the Framers believed to be the most important purpose of the intellectual property systems. These aims can be discerned through the Intellectual Property Clause and clues embedded within the wording of the Clause. In doing so, it should be noted that the best meaning of the word "progress" as it is used in the Intellectual Property Clause is "dissemination." Referencing back to the policy goals for intellectual property regimes, the Framers' objectives, characterized as dissemination, are best represented by the policy goal of incentivizing disclosure. Thus, this Comment proffers this policy goal as what intellectual property law should be emphasizing. Even if this is inconsistent with the purpose we see for intellectual property today, this is at least a meaningful starting point for the discussion.

The point is not that any one principle is correct to the exclusion of others. Certainly, intellectual property may strive to achieve multiple goals and is arguably strengthened by having the benefit of multiple perspectives. As Henry Hart observes in a different context, "[s]ocial purposes can never be single or simple, or held unqualifiedly to the exclusion of all other social purposes; and an effort to make them so can result only in the sacrifice of other values which also are important." Instead, the argument made here is that to create a coherent intellectual property policy, we must define how these goals interact, discern areas where they may conflict, and create a method of prioritizing some goals over others to help guide us in deciding what to do when there is conflict. And in doing so, we should ask ourselves: Are we making progress?

¹⁶⁰ Cf. Henry M. Hart, Jr., The Aims of the Criminal Law, 23 LAW & CONTEMP. PROBS. 401 (1958) (discussing the necessity and virtue of having multiple policy goals in mind when framing criminal law policies).

¹⁶¹ *Id.* at 401.