

# RETHINKING PATENTS WITHIN THE NATURAL LAW

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## INTRODUCTION

On May 22, 2019, Senators Thom Tillis and Chris Coons introduced draft text for legislation that would reform a hotly contested area of patent law: 35 U.S.C. § 101.<sup>1</sup> Reactions to the proposed legislation drew mixed support from intellectual property stakeholders.<sup>2</sup> However, most of the commentary on the draft text largely lacked any analysis of the proposed additions to § 100,<sup>3</sup> which read: “The term ‘useful’ means any invention or discovery that provides specific and practical utility in any field of technology through human intervention.”<sup>4</sup>

This addition of “human intervention” seems like an unassuming proposal. However, even though it may not have been intended, this concept may provide an opportunity for understanding patent law

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1 Press Release, *Sens. Tillis and Coons and Reps. Collins, Johnson, and Stivers Release Draft Bill Text to Reform Section 101 of the Patent Act*, THOM TILLIS: U.S. SENATOR FOR N.C. (May 22, 2019), <https://www.tillis.senate.gov/2019/5/sens-tillis-and-coons-and-reps-collins-johnson-and-stivers-release-draft-bill-text-to-reform-section-101-of-the-patent-act> [https://perma.cc/2FV9-DL26].

2 See, e.g., Adam Mossoff, *Big Tech's Opposition to Section 101 Reform: Policy Rhetoric Versus Economic Reality*, HUDSON INST. (June 22, 2020), <https://www.hudson.org/research/16172-big-tech-s-opposition-to-section-101-reform-policy-rhetoric-versus-economic-reality> [https://perma.cc/B4YV-UCTK]; Eileen McDermott, *Draft Text of Proposed New Section 101 Reflects Patent Owner Input*, IP WATCHDOG (May 22, 2019), <https://www.ipwatchdog.com/2019/05/22/draft-text-proposed-new-section-101-reflects-patent-owner-input/id=109498/> [https://perma.cc/DG8T-BSCX].

3 See, e.g., McDermott, *supra* note 2.

4 THOM TILLIS: U.S. SENATOR FOR N.C., *supra* note 1.

through a natural law jurisprudence. Patent law is traditionally understood through a purely statutory lens. Indeed, patent law in the United States is established by the Constitution<sup>5</sup> and governed completely by Chapter 35 of the United States Code. However, I argue in this Note that the principles of natural law, including the concepts of order and morality inherent in the natural world, are ripe for application to subject matter eligibility jurisprudence under Chapter 35, Section 101 (“Section 101”). Specifically, I contend that granting patent rights under the rationale that these rights foster economic innovation severs patent law from the concepts of justice inherent in private property rights and the natural law.

Before approaching patent law, it is important to understand the natural law and its relationship to private property. Thomas Aquinas states that private property is not *contrary* to the natural law, but “because the division of possessions is not according to the natural law, but rather arose from human agreement which belongs to positive law,” these divisions are “necessary to human life.”<sup>6</sup> He outlines the common benefit of allowing private property rights: “The . . . thing that is competent to man with regard to external things *is their use*. On this respect man ought to possess external things, not as his own, but as common, so that, to wit, *he is ready to communicate them to others in their need*.”<sup>7</sup>

Such a communal-based framework is key to an understanding of the necessity for strong patent rights in the modern age. Supreme Court precedent since *Mayo v. Prometheus Laboratories*<sup>8</sup> and *Alice v. CLS Bank*<sup>9</sup> has established significant hurdles between software inventors and patents on their inventions. *Alice* notably changed a historically low bar for patent eligibility under Section 101. Section 101 states: “Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.”<sup>10</sup>

This section appears facially broad. But Justice Thomas, writing for a unanimous Court in 2014, held in *Alice* that a computer implementation of an abstract concept is not an “inventive concept” sufficient to “‘transform’ the claimed abstract idea into a patent-

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5 See U.S. CONST. art. I, § 8, cl. 8.

6 THOMAS AQUINAS, SUMMA THEOLOGIAE II-II Q. 66 art. 2 (Fathers of the Eng. Dominican Province trans., 2d rev. ed. 1920), <https://www.newadvent.org/summa>.

7 *Id.* (emphasis added).

8 *Mayo Collaborative Servs. v. Prometheus Lab’ys, Inc.*, 566 U.S. 66 (2012).

9 *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208 (2014).

10 35 U.S.C. § 101 (2018).

eligible application.”<sup>11</sup> This focus of on transformation of an abstract idea into something patent eligible, however, is a step beyond the purpose behind Section 101, which is to determine what things are patentable *inventions* versus what are not (i.e., subject matter eligibility). I argue in this Note that when viewed through the lens of natural law and private property rights, the subject matter eligibility analysis should consider the fact that inventions benefit the common good, and thus they warrant exclusive property rights. I further consider evidence of historical precedent for this view, but argue that this focus has since been lost. But a recognition of certain natural law principles in future patent law legislation may assist in the recognition of property rights that are due inventors.

Though one scholar has directly suggested an implementation of Thomas Aquinas’s natural law concepts to United States patent law,<sup>12</sup> that proposal has not been analyzed in light of modern patent law subject matter eligibility jurisprudence. In Part I of this Note, I trace the origins of natural law and natural rights in patents through English and United States legal history. In Part II, I outline the philosophical principles of natural law and natural rights necessary for understanding patent law. In Part III, I highlight the deemphasis of property rights in patent law, including in cases such as *Alice* and *Oil States*,<sup>13</sup> and propose that that subject matter eligibility should be reoriented by a legislative fix that emphasizes “human intervention.”

## I. THE ORIGIN OF PATENT LAW RIGHTS

### A. *Detecting the Natural Law in Early Patent Common Law*

Since ratification, the United States Constitution has provided a limited right to inventions.<sup>14</sup> However, comparatively little has been written on the history of its inclusion.<sup>15</sup> According to one commentator, “[t]he reason for the dearth of commentary undoubtedly is that

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11 *Alice*, 573 U.S. at 221 (quoting *Mayo*, 566 U.S. at 72, 80); see also Jeffrey A. Lefstin, *Inventive Application: A History*, 67 FLA. L. REV. 565 (2015) (outlining the jurisprudential history of “inventive application” and “inventive concept”).

12 See Wendy Lim, *Towards Developing a Natural Law Jurisprudence in the U.S. Patent System*, 19 SANTA CLARA COMPUT. & HIGH TECH. L.J. 561 (2003).

13 *Oil States Energy Servs., LLC v. Greene’s Energy Grp., LLC*, 138 S. Ct. 1365, 1373 (2018) (quoting *Seymour v. Osborne*, 78 U.S. (11 Wall.) 516, 533 (1870)) (claiming that “patents are ‘public franchises’”).

14 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. INTEL. PROP. L. 1, 1–2 (1994).

15 *Id.* at 26.

so little is actually known about how its inclusion came about.”<sup>16</sup> The inclusion seems to have derived at least in part from a desire to follow the English system of granting exclusive rights to inventors.<sup>17</sup> The origin of this English legal protection, however, has a fascinating and contentious history.

Patents, or “letters patent,” were provided by the Crown as a tool of furthering royal policies.<sup>18</sup> Letters patents were granted to individuals in a particular industry to provide a de facto monopoly on a particular area of trade.<sup>19</sup> These grants began initially as privileges granted by the Crown over particular methods of trade.<sup>20</sup> The grants included, for example, the right to hold a fair or a market or the right to charge for goods passing through a town.<sup>21</sup> The Crown, over a time period between the 1500s and 1600s, subsequently expanded these privileges to *selling* rights.<sup>22</sup> For example, the Crown may have granted an individual the exclusive right to sell goods such as salt or leather within a geographic area.<sup>23</sup> While the first monopolies over trade were relatively uncontroversial, the resulting expansion drew critics.<sup>24</sup> This criticism came to a head thanks to Sir Edward Coke.

Coke strongly held the belief that the common law prohibited monopolies.<sup>25</sup> In his report of the case *Darcy v. Allen*, known as the *Case of Monopolies*, Coke highlights how the court found that monopolies were against statutes and the common law.<sup>26</sup> Though there was no written opinion issued by the court there, Coke

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16 *Id.*

17 *Id.* at 34 (explaining that the inclusion “seems to have been predicated on their desire to follow the English practice of granting exclusive rights through the issuance of patents or a similar device”).

18 Adam Mossoff, *Rethinking the Development of Patents: An Intellectual History, 1550–1800*, 52 HASTINGS L.J. 1255, 1259 (2001).

19 *See id.* at 1259–60.

20 *Id.* at 1259.

21 F.W. MAITLAND, *THE CONSTITUTIONAL HISTORY OF ENGLAND* 260 (1st ed. 1908).

22 *Id.* at 260–61.

23 *Id.*

24 *Id.* at 261.

25 William L. Letwin, *The English Common Law Concerning Monopolies*, 21 U. CHI. L. REV. 355, 356 (1954). Coke may have been mistaken or guided by extralegal motivations in arriving at this conclusion, but his opinions influenced the development of anti-monopoly law in England. *Id.* at 362, 365–66.

26 *See* *The Case of Monopolies* (1602) 77 Eng. Rep. 1260, 1265–66; 11 Co. Rep. 84 b, 88 a–b. Notably, reporters differ on the spelling of the plaintiff’s name (and Coke is the only one to refer to the case as “The Case of Monopolies”). *See* Oren Bracha, *The Commodification of Patents 1600–1836: How Patents Became Rights and Why We Should Care*, 38 LOY. L.A. L. REV. 177, 195 n.93 (2004). For consistency, I will use the “Allen” spelling in the text of this Note.

represented Darcy (and the Queen) as Attorney General. His reports include indications of arguments reportedly well-received by the jurists.<sup>27</sup> Darcy had been granted by the Queen an exclusive license over the import and sale of playing cards.<sup>28</sup> The grant, the justices reasoned, was contrary to the common law for being contrary to the restriction of trade.<sup>29</sup>

How does this common-law prohibition on letters patent relate to the natural law? Sir William Blackstone, documenter of the common law, believed that “natural law imposed basic duties to God, to oneself and to one’s neighbor and that municipal law added further duties of citizenship.”<sup>30</sup> These concepts of the common good in the natural law were generally only applied directly in cases when the common law was silent.<sup>31</sup> In the case of *Darcy*, the reports indicate that the court relied on both cases and statutes to support its rationale.<sup>32</sup> But reference to the common good was not left out. Specifically, one report stated: “The ordinance of God is, that every man should live by labour, and that he that will not labour, let him not eat.”<sup>33</sup> Further, “that for the good of the realm: that in such cases the King may grant to him a monopoly patent for some reasonable time, until the subjects may learn the same, in consideration of the good that he doth bring by his invention to the commonwealth: otherwise not.”<sup>34</sup> Coke’s reports likewise indicate that the justices believed that restriction of trade in part “agrees with the equity of the law of God,” since it “tends to the impoverishment of divers artificers and others, who before, by the labour of their hands in their art or trade, had maintained themselves and their families, who now will of necessity be constrained to live in

27 Bracha, *supra* note 26, at 195 n.93 (“[W]hatever the judicial reasons were as reported, *Darcy v. Allen* remains an important landmark. . . . [R]eports of the case reveal the way emerging common law thought about monopolies was synthesized and presented by a host of important and influential reporters who published their accounts years after the decision.”).

28 *The Case of Monopolies*, 77 Eng. Rep. at 1260–61, 11 Co. Rep. at 84 b–85 a.

29 *See id.* at 1260, 11 Co. Rep. at 84 b.

30 Albert W. Alschuler, *Rediscovering Blackstone*, 145 U. PA. L. REV. 1, 47 (1996).

31 Michael Lobban, *The Common Law Mind in the Age of Sir Edward Coke*, 2001 AMICUS CURIAE, 18, 19 (“Coke himself cited natural law as a basis of argument in *Calvin’s Case*[.] . . . stating that it was the eternal law infused into the heart of man at the time of his creation, and declaring that it existed before any municipal or judicial laws. However, Coke was using the principle to answer a question for which there was no clear solution in the common law . . .”).

32 *Darcy v. Allin* (1602) 74 Eng. Rep. 1131, 1136, 1140 (KB).

33 *Id.* at 1137.

34 *Id.* at 1139.

idleness and beggary.”<sup>35</sup> Thus, the grant of monopolies were contrary to the natural law.

Though monopolies (i.e., “letters patents”) were found contrary to natural law, however, patents on inventions were explicitly legally exempted from this prohibition. Even the counsel for Allen specifically acknowledged that, despite any common-law prohibition on granting patents generally, the Crown had the ability to grant patents for inventions.<sup>36</sup> The *Darcy* court agreed, and indicated that articles of invention were excluded from the illegal grant of monopolies: “[A]ll monopolies, grants, letters patent, and licenses, for the sole buying, selling, and making of goods and manufactures, are declared void, except . . . this does not extend to . . . inventors of new manufactures.”<sup>37</sup>

Considering which side of the “v” Coke represented in *Darcy*, it is somewhat ironic that he eventually drafted and introduced the Statute of Monopolies in parliament some 20 years later, which effectively solidified the ban of monopolies in England.<sup>38</sup> There, however, patents on inventions were again protected by parliament. When it was passed, an explicit exemption was carved out for inventors: “Provided nevertheless . . . [the Statute] shall not extend to any letters patents and grants of privilege for . . . the sole working or making of any manner of new manufacture within this realm, to the first and true inventor or inventors of such manufactures.”<sup>39</sup> Though there is a contemporaneous debate over whether patent rights are considered monopoly rights,<sup>40</sup> language in the current United States patent statute mirrors the Statute of Monopolies’s language: “Whoever invents or discovers any new and useful process, machine, manufacture, . . . or any new and useful improvement thereof, may obtain a patent therefor . . . .”<sup>41</sup>

35 The Case of Monopolies (1602) 77 Eng. Rep. 1260, 1263; 11 Co. Rep. 84 b, 86 b.

36 Jacob I. Corré, *The Argument, Decision, and Reports of Darcy v. Allen*, 45 EMORY L.J. 1261, 1304 (1996).

37 *The Case of Monopolies*, 77 Eng. Rep. at 1262 n.D, 11 Co. Rep. at 86 a; see also *Darcy*, 74 Eng. Rep. at 1139.

38 See Barbara Malament, *The “Economic Liberalism” of Sir Edward Coke*, 76 YALE L.J. 1321, 1351 (1967); cf. Steven G. Calabresi & Larissa C. Leibowitz, *Monopolies and the Constitution: A History of Crony Capitalism*, 36 HARV. J.L. & PUB. POL’Y 983, 995 (stating that Coke’s view of the royal patent power may have changed or may have no longer been as controversial as it once had been).

39 JOHN WILLIAM SMITH, A COMPENDIUM OF MERCANTILE LAW app. 21 Jac. 1. c. 3, at i (George Morley Dowdeswell ed., 4th ed. 1848).

40 See ROBERT PATRICK MERGES & JOHN FITZGERALD DUFFY, *PATENT LAW AND POLICY* 59 (8th ed. 2021).

41 35 U.S.C. § 101 (2018).

### B. *U.S. Patent Rights and the Constitution's Intellectual Property Clause*

United States patent law has roots in English law that are both statutory and, to some extent, reflective of the natural law. However, before analyzing how English precedent connects to modern American jurisprudence, it is important to identify current rationales behind an alleged natural right to patents. Professor Mossoff, for example, argues that Lockean Labor Theory has played more into the grant of patents than popularly acknowledged.<sup>42</sup> He argues that there was a preexisting natural right to inventions that predated the Statute of Monopolies. When Parliament passed the Statute of Monopolies, “it created a civil right of patents for inventions . . . [which] transformed this natural right into a legal right.”<sup>43</sup> Nevertheless, turning to the United States, whether or not modern patent rights are derived from English statutory or common law, any underlying common law rights are not *per se* overruled.<sup>44</sup>

Natural exclusive rights to invention, however, were likely not on the minds of the Founders when they drafted the Constitution and its Intellectual Property Clause. Likely, the purpose in including the Intellectual Property Clause was (1) to provide a cohesive structure to patent rights across the Union<sup>45</sup> and (2) to remove any question about Congress's power to grant patents.<sup>46</sup> Both goals may have been influenced by the additional intent of decreasing costs in administration of a patent system. That proposition is somewhat supported by the fact

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42 Mossoff, *supra* note 18, at 1313–14 (pointing to an 1803 English decision that appears to stand for the proposition that “[i]f the patented invention is ‘essentially new’ and ‘productive,’ then the inventor has engaged in the appropriate labor that justifies his moral claim to his patent right, i.e., he *ought* to have his fourteen-year patent”).

43 *Id.* at 1300. Additionally, for commentary on the relationship between the common law and the Statute of Monopolies, see W.M. HINDMARCH, A TREATISE ON THE LAW RELATIVE TO PATENT PRIVILEGES FOR THE SOLE USE OF INVENTIONS 3 (1847) (“It is quite certain that in England the Crown derives its power to grant such letters patent from the Common Law itself, but restrained by the Statute of Monopolies, which was little more than a declaration of the Common Law on the subject.”). See also *id.* (“[I]nventors are *never entitled as of right* to letters patent . . . but they must obtain them from the Crown by petition, and as a matter of grace and favour . . .”).

44 See Adam J. MacLeod, *Public Rights After Oil States Energy*, 95 NOTRE DAME L. REV. 1281, 1312 (2020) (arguing that historically, merely because a statute was passed does not eliminate prior rights, since “both unwritten common law and written legislation specify the general requirements of the law of reason”).

45 See Walterscheid, *supra* note 14, at 22 (“[S]tates only could legislate with respect to their own territory. Thus, state patents and copyrights could be infringed with impunity in adjoining states.”).

46 *Id.* at 34 (“[T]he delegates were not at all certain that the Congress would have the power to do so without an explicit grant of authority.”).

that it is the only constitutional clause which requires a specific method of protecting a defined right (i.e., requiring a limited term).<sup>47</sup>

Nevertheless, a view of natural rights to patents likewise seemed to take hold by legal practitioners in the United States. For example, in a seminal patent case in 1852, the great Daniel Webster gave an opening argument, worthy of lengthy reproduction here, in which he argued:

The Constitution does not attempt to *give* an inventor a right to his invention, or to an author a right to his literary productions. No such thing. But the Constitution *recognizes* an original, pre-existing, inherent right of property in the invention, and authorizes Congress to secure to inventors the enjoyment of that right. But the right existed before the Constitution and above the Constitution, and is, as a natural right, more clear than that which a man can assert in almost any other kind of property. What a man earns by thought, study and care, is as much his own, as what he obtains by his hands. It is said that, by the natural law, the son has no right to inherit the estate of his father—or to take it by devise. But the natural law gives man a right to his own acquisitions, as in the case of securing a quadruped, a bird, or a fish by his skill, industry, or perseverance. Invention, as a right of property, stands higher than inheritance or devise, because *it is personal earning*. It is more like acquisitions by the original right of nature. In all these there is an effort of mind as well as muscular strength.<sup>48</sup>

Webster's words reflect a clear, natural law view of intellectual property.

Having established the hints of natural law within the historical origins of the patent system, the next question is *how* natural law philosophy should influence patent law. There is notably some debate over the relationship between natural law and natural rights, which I don't hope to settle in the context of patent law. Instead, I attempt focus on the natural law itself, and why this philosophy is a preferable approach to assessing when a patent should be granted.

## II. NATURAL LAW, PROPERTY, AND PATENTS

There is an academic and philosophical disagreement over the relationship between natural law and natural rights. Do natural rights

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<sup>47</sup> See *id.* at 33.

<sup>48</sup> DANIEL WEBSTER, SPEECH OF THE HON. DANIEL WEBSTER, IN THE GREAT INDIA RUBBER SUIT 1–2 (Arthur & Burnet 1852).

stem from natural law?<sup>49</sup> Do natural rights give rise to natural law?<sup>50</sup> Or are these concepts completely separate?<sup>51</sup> Without attempting to solve these difficult questions, I instead attempt to posit that—whether or not there is a natural *right* to protection of inventions—a robust system of ensuring protection of inventions is beneficial to the common good of the natural *law* as approached by Thomas Aquinas.

#### A. *Natural Law and Property Rights*

According to Aquinas, law is divided into four categories: (1) divine law, (2) eternal law, (3) natural law, and (4) human law.<sup>52</sup> Natural law is the law that refers to the nature of man and is manifested “in the inclinations of a man’s nature and to nothing else.”<sup>53</sup> While human law may be established by a government, this law, in Thomas’s view, cannot be at odds with the natural law.<sup>54</sup>

Thomas Aquinas states that private property is not contrary to the natural law, but “because the division of possessions is not according to the natural law, but rather arose from human agreement which belongs to positive law,” these divisions are “necessary to human life.”<sup>55</sup> He indicates the common benefit of allowing private property rights: “The . . . thing that is competent to man with regard to external things *is their use*. On this respect man ought to possess external things, not as his own, but as common, so that, to wit, *he is ready to communicate them to others in their need*.”<sup>56</sup>

It is this nature of the *use* of the goods that Thomas indicates is essential to his definition of private property. The philosopher Jacques Maritain argues that while Thomistic “use” requires that private possession be for the benefit of the common good (i.e., possession cannot be for purely selfish reasons),<sup>57</sup> “use” necessarily requires

49 See Brian Tierney, *Natural Law and Natural Rights Old Problems and Recent Approaches*, 64 REV. POL. 389, 390 (2002) (describing John Finnis’s philosophy).

50 See *id.* (describing Norberto Bobbio’s philosophy on Hobbes)

51 Randy E. Barnett, *A Law Professor’s Guide to Natural Law and Natural Rights*, 20 HARV. J.L. & PUB. POL’Y 655, 680–81 (1997).

52 See Lim, *supra* note 12, at 587–88.

53 Thomas E. Davitt, *St. Thomas Aquinas and the Natural Law*, in ORIGINS OF THE NATURAL LAW TRADITION 26, 39 (Arthur L. Harding ed., 1954).

54 See Jacques Maritain, *Freedom in the Modern World*, in 11 THE COLLECTED WORKS OF JACQUES MARITAIN 1, 102 (Otto Bird ed., Otto Bird, Joseph Evans & Richard O’Sullivan trans., 1996) (citing THOMAS AQUINAS, SUMMA THEOLOGIAE II-II Q. 95 art. 2).

55 AQUINAS, *supra* note 6, at III Q. 66 art. 2.

56 *Id.* (emphasis added).

57 Maritain, *supra* note 54, at 108.

personal domain (i.e. ownership), over “material and . . . the means necessary for executing” one’s work.<sup>58</sup>

According to Maritain’s interpretation of Thomas, the two concepts of private property consider a “person as intellectual maker” and a “person as moral agent.”<sup>59</sup> The person as intellectual maker is one who creates things, and that person must have ownership over the means of producing those created things for the common good.<sup>60</sup> The person as moral agent is one who is obligated to use those things for the common good.<sup>61</sup> Thus, Maritain states, “the artistic and productive work of man is the outcome of personal activity . . . . [T]he material that is to be wrought needs to be the property of him who works on it, of the person who operates on it—a rational being which is individual and which has an individual perfection.”<sup>62</sup>

In other words, *makers* of things (or *inventors*) are due private property rights; yet makers have *moral* duties to use these objects for the common good. Unlike private property under Lockean Labor Theory, where one has a natural right in property because of the labor he has exerted, Thomistic private property (in Maritain’s view) is based in the “exercise of art or work,” since it “presupposes the rational nature and personality of the artist or workman.”<sup>63</sup> Contrastingly, for example, a bee has no private property right to its honey, since the bee is not capable of human reason.<sup>64</sup> Maritain explains, “[t]he metaphysical foundation of private property has thus to do with the artistic side of human nature.”<sup>65</sup> This artistic side of human nature implies private property, since “[t]he vocation of human nature to elaborate raw material according to a rational design requires generally that external things on which and by which this elaboration is wrought should be possessed as of right by the person whose rational activity is in operation.”<sup>66</sup>

Other modern natural law scholars approach private property with a similar take. John Finnis, for example, states that private property arises out of the common good realized through “co-ordinated ensemble of conditions for individual well-being in [the]

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58 *Id.* at 104.

59 *Id.* at 103 (emphasis omitted).

60 *See id.*

61 *See id.* at 103, 106.

62 *Id.* at 104.

63 *Id.* at 103.

64 *Id.*

65 *Id.* at 105.

66 *Id.*

community.”<sup>67</sup> Rights of exclusion in property are justified because it enables individuals to promote the common good:

[T]o give private owners freedom to expend their own creativity, inventiveness, and undeflected care and attention upon the thing(s) in question, to give them security in enjoying the thing(s) or investing or developing them, and to afford the owners the opportunity of exchanging their thing(s) for some alternative item(s) of property seeming to them more suitable to their life-plans.<sup>68</sup>

Notably, Finnis’s theory of justice in private property addresses the problem of distribution of resources within society. According to Finnis, there are two kinds of resources: (1) subject matter not created by anybody and (2) common subject matter arising “out of the willingness of individuals to collaborate to improve their position.”<sup>69</sup> For the first, Finnis provides the examples of solar energy, light, and the sea. For the second, he provides examples of coordinated efforts for improving society, including a division of labor and the products that result from that coordination (e.g., weapons, a sea wall, or a drainage system).<sup>70</sup>

Drawing on Aquinas, Finnis—like Maritain—argues that an owner has the duty to use these distributed resources to put it to productive use.<sup>71</sup> Furthermore, it may be up to the state to ensure that this coordination of property is just, while still requiring individuals to exercise their corollary duties arising from the private property ownership: “Where owners will not perform these duties, or cannot effectively co-ordinate their respective efforts to perform them, then public authority may rightly help them to perform their duties by devising and implementing schemes of distribution . . . .”<sup>72</sup>

### B. *Natural Law and Patent Rights*

There is naturally a direct connection between both Finnis and Maritain’s view of private property and inventions. For example, language in *Darcy* draws direct parallels to both the person as the intellectual maker and the person as the moral agent: First, *Darcy*

67 JOHN FINNIS, *NATURAL LAW AND NATURAL RIGHTS* 166 (2d ed. 2011).

68 *Id.* at 172.

69 *Id.* at 167.

70 *Id.* This dichotomy between things not created by anybody and things used to benefit the community has parallels to certain judicial exceptions in patentable subject matter eligibility (such as unpatentable laws of nature or abstract ideas), discussed *infra* in Section III.A.

71 *See* FINNIS, *supra* note 67, at 171–72.

72 *Id.* at 173.

reads, “[t]he ordinance of God is, that every man should live by labour, and that he that will not labour, let him not eat.”<sup>73</sup> Second, it recites that patents on inventions are reasonable “for the good of the realm.”<sup>74</sup> *Darcy*’s reference to “labour” is a reference to the inventive process. According to *Darcy* then, inventors are not excluded from a moral obligation to labor for the benefit of the common good.

Patents, of course, are based on utility.<sup>75</sup> Assuming that this utility should be used for the common good only satisfies Maritain’s moral agent prong. For patents to be justifiably within one’s personal domain, they must also be a means of production to the intellectual maker. At first, it may seem that patents do not assist in production. They are, in fact, a right to exclude and not a physical tool for producing items. Exclusivity, however, does itself assist production. Exclusive rights ensure a business is able to compete on the market and continue to provide goods and services to the community. This can be true in a number of ways.

First, exclusivity may be justified as a tool against barriers to entry. Consider the case of Stuart Anders, inventor of the 1990s fad the Slap Wrap.<sup>76</sup> Anders was a Midwesterner and former Army helicopter pilot.<sup>77</sup> When he brought his invention to the Toy Fair trade show in 1990, everyone was talking about it—and free samples were slapped on every attendee.<sup>78</sup> Within a short time period, Anders had major orders from major toy companies.<sup>79</sup> Shortly, Anders’s invention was everywhere—but they weren’t his products, they were knockoffs.<sup>80</sup> The Slap Wrap was not patented.<sup>81</sup> In the time after the Toy Fair and before Anders could manufacture his product, larger, more agile companies were able to quickly retool and begin manufacturing Slap Wrap knockoffs faster than Anders was able.<sup>82</sup> In the end, for one of the most

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73 *Darcy v. Allin* (1602) 74 Eng. Rep. 1131, 1137 (KB).

74 *Id.* at 1139.

75 See 35 U.S.C. § 101 (2018) (allowing patents for “any new and *useful* process” (emphasis added)); see also *Juicy Whip, Inc. v. Orange Bang, Inc.*, 185 F.3d 1364, 1366 (Fed. Cir. 1999) (citing *Brenner v. Manson*, 383 U.S. 519, 534 (1966)) (“The threshold of utility is not high: An invention is ‘useful’ under section 101 if it is capable of providing some identifiable benefit.”).

76 See StartUp, *You Have to Invent Something*, GIMLET (Apr. 14, 2017), <https://gimletmedia.com/shows/startup/llhejv> [<https://perma.cc/R8XX-5GGT>].

77 *Id.*

78 *Id.*

79 *Id.*

80 *Id.*

81 *Id.*

82 See *id.*

iconic inventions of the 1990s, Anders wound up with nothing.<sup>83</sup> This is not an uncommon story. Many smaller companies with less ability to match the resources of larger entities are being “scooped” in the marketplace.<sup>84</sup> In essence, today’s small-town inventors cannot bring their products of labor to market, since they cannot compete against the resources of large companies. Patents provide a counter mechanism to this competition—essentially, exclusivity has become crucial for operating in many industries.<sup>85</sup> If exclusivity is necessary for a business to operate, then patents are therefore tools of labor (i.e., tools of exclusivity) that invoke property rights: they are thus Maritain’s “material that is to be wrought.”<sup>86</sup>

Second, due to the unique nature of inventions, exclusivity may be essential to providing this good to the public. Take the hypothetical of a logging company. Multiple entrepreneurs may each simultaneously start a logging company. But they will not be competing over a specific tree; they will be competing over the limited resource of tress as a whole. An invention, however, is unique by definition. Two competitors may come upon the same technological improvement, but it is still the same invention and exact same resource.<sup>87</sup> Exclusivity is necessary in order to bring the product to market. For example, the Slap Wrap was a single invention. Stuart Anders’s labor (his business) was predicated on the manufacture of this product. Unfortunately, without patent protection, he was unable to compete in the market in the way he would have if he had held the proper means of production in a patent grant.<sup>88</sup>

Does this therefore imply that—for the common good—one has a moral obligation to not copy another’s product, even if it is not patented? Not necessarily. If there were no system of patent protection available, that may be the case. However, because private property is rooted in the common good, and because Stuart did not seek patent

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83 See *id.*

84 See, e.g., Leah Nysten & Cristiano Lima, *Big Tech’s ‘Bully’ Tactics Stifle Competition, Smaller Rivals Tell Congress*, POLITICO (Jan. 17, 2020, 6:23 PM), <https://www.politico.com/news/2020/01/17/big-tech-competition-investigation-100701> [<https://perma.cc/6KJZ-Q8W3>].

85 See, e.g., Stephen Key, *In Today’s Market, Do Patents Even Matter?*, FORBES (Nov. 13, 2017, 4:45 PM), <https://www.forbes.com/sites/stephenkey/2017/11/13/in-todays-market-do-patents-even-matter/?sh=749960f956f3> [<https://perma.cc/8FQ5-ABFT>] (“[Small businesses] need a point of a difference and a competitive edge. . . . Preventing copycats and others from working around you is difficult with or without a patent.”).

86 See Maritain, *supra* note 54, at 104.

87 The analogy breaks down a bit, of course, because inventions are not discoveries; they are created.

88 See StartUp, *supra* note 76.

protection, it may be reasonably assumed that by disclosing the invention publicly at a trade show, he was donating it to society.<sup>89</sup> Any assumption otherwise would provide administrability issues, which do not necessarily negate natural law obligations.<sup>90</sup>

### III. “HUMAN INTERVENTION” AND NATURAL LAW

#### A. *Property Rights and Patents at the U.S. Supreme Court*

Having concluded that there is a reasonable natural law basis for patents, the next question is how this affects (or should affect) current patent law jurisprudence. The answer is that a reemphasis on the natural law for patents may result in the restrengthening private property rights in inventions that have been increasingly viewed with skepticism by the Supreme Court.

In 2017, the Supreme Court stated in *Oil States Energy Services, LLC v. Greene’s Energy Group, LLC* that “patents are ‘public franchises’ that the Government grants ‘to the inventors of new and useful improvements.’”<sup>91</sup> According to Professor MacLeod, the Court’s decision in *Oil States* emphasized that patents exhibit three different categories depending on context:

- (1) rights that the public as a whole enjoys not to be defrauded by an ill-gotten patent or otherwise wronged;
- (2) rights generated by positive laws that are not primarily determined by natural rights but are instead matters of indifference that lawmakers settle by their choices; and
- (3) rights that are derived from prerogative grants, such as franchises and letters patent.<sup>92</sup>

Consequently, “patents implicate private rights for some interested parties and public rights for others.”<sup>93</sup> Since patent rights are not derived from common law,<sup>94</sup> the Court stated in *Oil States*, the rights must be derived from statute.<sup>95</sup> An emphasis of these public

89 See *Maxwell v. J. Baker, Inc.*, 86 F.3d 1098, 1106 (Fed. Cir. 1996) (quoting *Unique Concepts, Inc. v. Brown*, 939 F.2d 1558, 1562–63 (Fed. Cir. 1991)) (highlighting the “well-established rule that ‘subject matter disclosed but not claimed in a patent application is dedicated to the public’”).

90 See *Maritain*, *supra* note 54, at 105 (“[W]hat we are now seeking is the general foundation of property right . . . and not those special conditions with which separate individuals must comply in order to become lawful owners.”).

91 *Oil States Energy Servs., LLC v. Greene’s Energy Grp., LLC*, 138 S. Ct. 1365, 1373 (2018) (quoting *Seymour v. Osborne*, 78 U.S. (11 Wall.) 516, 533 (1871)).

92 MacLeod, *supra* note 44, at 1284.

93 See *id.* at 1286.

94 A correct statement yet asterisked in Part I above. See *supra* Part I.

95 See *Oil States*, 138 S. Ct. at 1374.

rights by the Court is a step away from any natural law principles that may have previously existed in patent law.<sup>96</sup> By conflating administration of patent rights with the grant of a right, the Court effectively undermines any basis with which morality (i.e., the natural law and the benefit of the common good) can play into exclusivity to inventions. Though this approach affects many aspects of patent law, technology inventors have significantly felt the impact of the approach in the Court's treatment of "subject matter eligibility."<sup>97</sup>

### B. *The Current State of Subject Matter Eligibility*

Subject matter eligibility, or the kinds of inventions that can be patentable, are governed by 35 U.S.C. § 101. The section reads: "[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title."<sup>98</sup> Though at first blush the statute appears clear in delimiting a patentable invention as a "process, machine, manufacture, or composition of matter," the boundaries of these concepts have proven far from that in the judiciary. For example, does a biological organism created in a lab constitute a manufacture? In 1980, the Supreme Court said yes.<sup>99</sup> Does an application of the mathematical principles of Hooke's Law constitute a process? The Federal Circuit has said no.<sup>100</sup>

The Supreme Court has classified certain judicial exceptions to subject matter eligibility, barring the patenting of "[L]aws of nature, natural phenomena, and abstract ideas."<sup>101</sup> These exceptions attempt to combat a concern for the preemption of general concepts, available to all, that may play a role in the any inventor's creative process.<sup>102</sup> From a policy perspective, we should not want to award a patent for

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96 See generally MacLeod, *supra* note 44, at 1305, 1317 (describing the public rights addressed in *Oil States* as, in part, confused with "[a] privilege that is indifferent as a matter of reason or ancient custom and is instead settled or specified by positive law").

97 See OFF. OF THE CHIEF ECONOMIST, U.S. PAT. AND TRADEMARK OFF., ADJUSTING TO *ALICE*: USPTO PATENT EXAMINATION OUTCOMES AFTER *ALICE CORP. V. CLS BANK INTERNATIONAL* (2020) [hereinafter OFF. OF THE CHIEF ECONOMIST].

98 35 U.S.C. § 101 (2018).

99 See *Diamond v. Chakrabarty*, 447 U.S. 303, 310 (1980) ("[The] discovery is not nature's handiwork, but his own; accordingly it is patentable subject matter . . .").

100 *Am. Axle & Mfg., Inc. v. Neapco Holdings LLC*, 939 F.3d 1355 (Fed. Cir. 2019), *modified after reh'g denied*, 967 F.3d 1285 (Fed. Cir. 2020), *petition for cert. filed*, 89 U.S.L.W. 3233 (U.S. Dec. 28, 2020) (No. 20-891).

101 *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 589 (2013) (quoting *Mayo Collaborative Servs. v. Prometheus Lab'ys, Inc.*, 566 U.S. 66, 70 (2012)).

102 See *id.*

things that are generally available and were not actually invented. With this concept in mind, courts have struggled to determine whether computerized technology fits into one of these judicial exceptions.<sup>103</sup> Is software an invention analogous to a machine? Or is it merely a series of logical steps, like mathematics, which constitute an abstract idea?<sup>104</sup>

The Court's answer to the question of computer-based subject matter eligibility in *Alice* kicked off a period of uncertainty as to the future of software patents.<sup>105</sup> In *Alice*, the Court held that a bank's patent directed to settlement mitigation via a computer, was nothing more than an abstract idea.<sup>106</sup> The Court stated that "[t]here is no dispute that . . . many computer-implemented claims are formally addressed to patent-eligible subject matter."<sup>107</sup> However, the test for subject matter eligibility established in the case<sup>108</sup> created a hurdle to patentability that proved difficult for many technology inventors to overcome.<sup>109</sup> Since that decision, the Court has not heard another case on subject matter eligibility.<sup>110</sup>

In the years following, though, the Federal Circuit has developed its jurisprudence within the *Alice* two-step framework in a way that has carved roads to eligibility for some computer-based inventions. This expanded jurisprudence is not always consistent, however. The Federal Circuit's Section 101 jurisprudence has been described as

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103 See generally Adam Mossoff, *A Brief History of Software Patents (and Why They're Valid)*, 56 ARIZ. L. REV. SYLLABUS 65, 70–72 (2014) (positing that arguing patents on software should be treated like patents on mathematical algorithms is "sophistry").

104 *Contra id.* at 66–69.

105 See, e.g., Gregory A. Castanias, David M. Maiorana & Matthew W. Johnson, *Alice Corp. v. CLS Bank: Did the Supreme Court Sign the Warrant for the "Death of Hundreds of Thousands of Patents"?*, JONES DAY (June 2014), <https://www.jonesday.com/en/insights/2014/06/ialice-corp-v-cls-bank-did-the-supreme-court-sign-the-warrant-for-the-death-of-hundreds-of-thousands-of-patents> [<https://perma.cc/AJZ5-FDL6>] ("Is this the End of Software Patents? . . . [I]t is unlikely . . .").

106 See *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208, 220 (2014) ("[I]ntermediated settlement . . . is an 'abstract idea' beyond the scope of § 101.").

107 *Id.* at 224.

108 The *Alice* "two-step" framework requires "determin[ing] whether the claims at issue are directed to a patent-ineligible concept," *id.* at 218, then "determin[ing] whether [the claim] contains an 'inventive concept' sufficient to 'transform' the claimed abstract idea into a patent-eligible application," *id.* at 221 (quoting *Mayo Collaborative Servs. v. Prometheus Lab'ys, Inc.*, 566 U.S. 66, 72, 80 (2012)).

109 This effect can be seen at both the U.S. Patent and Trademark Office in examination and in litigation. See OFF. OF THE CHIEF ECONOMIST *supra* note 97.

110 See Thomas A. Miller, *USPTO Launches Deferred Approach to Section 101 Eligibility Analysis in Patent Prosecution*, NAT'L L. REV. (Feb. 7, 2022), <https://www.natlawreview.com/article/uspto-launches-deferred-approach-to-section-101-eligibility-analysis-patent> [<https://perma.cc/GK2Z-4U8S>].

“worse than a circuit split.”<sup>111</sup> In one school of thought, the language from *Alice* (“improve the functioning of the computer itself. . . . Nor do they effect an improvement in any other technology or technical field”)<sup>112</sup> seems to provide a broad leeway for patenting software technology as long as the software “improve[s] the functioning of the computer itself.”<sup>113</sup> In another school of thought, improving the functioning of computers is a bar that is much more difficult to overcome.<sup>114</sup>

Analogous controversy for natural phenomena arose at the Federal Circuit in *American Axle*, discussed above, where the court held that claim directed to an application of Hooke’s Law was patent ineligible for being directed to a natural law.<sup>115</sup> On petition for rehearing, the Circuit split evenly and denied the request.<sup>116</sup> The court issued a modified opinion with additional reasoning for its Section 101 holding.<sup>117</sup> In (now Chief) Judge Moore’s dissent, she discussed the majority’s “result-oriented judicial activism” by “inflat[ing] § 101 beyond the statutory language and Supreme Court precedent” while also raising procedural concerns of “deprivation of property rights without due process.”<sup>118</sup> She later wrote, “What we have here is worse than a circuit split—it is a court bitterly divided. As the nation’s lone patent court, we are at a loss as to how to uniformly apply § 101.”<sup>119</sup> This equivalent (or as close as possible) to a circuit split on applying

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111 *Am. Axle & Mfg., Inc. v. Neapco Holdings LLC*, 977 F.3d 1379, 1382 (Fed. Cir. 2020) (Moore, J., concurring in denial of the motion to stay).

112 *Alice*, 573 U.S. at 225.

113 *See, e.g.*, *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335, 1338–39 (Fed. Cir. 2016) (citing *Alice Corp. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2358–59 (2014)) (holding a patented self-referential table to be patent eligible, since the court was “not persuaded that the invention’s ability to run on a general-purpose computer dooms the claims”).

114 *See, e.g.*, *Intell. Ventures I LLC v. Cap. One Fin. Corp.*, 850 F.3d 1332, 1340–42 (Fed. Cir. 2017) (citing *Alice*, 134 S. Ct. at 2359) (holding that the patented systems and methods for editing XML documents to be patent ineligible for reciting the abstract idea of “collecting, displaying, and manipulating data” itself without significantly more, since they “neither improve the functions of the computer itself, nor provide specific programming, tailored software, or meaningful guidance for implementing the abstract concept”).

115 *Am. Axle & Mfg., Inc. v. Neapco Holdings LLC*, 939 F.3d 1355 (Fed. Cir. 2019), *modified after reh’g denied*, 967 F.3d 1285 (Fed. Cir. 2020), *petition for cert. filed*, 89 U.S.L.W. 3233 (U.S. Dec. 28, 2020) (No. 20-891).

116 *See Am. Axle & Mfg., Inc. v. Neapco Holdings LLC*, 966 F.3d 1347 (Fed. Cir. 2020) (denying rehearing en banc).

117 *See Am. Axle & Mfg., Inc. v. Neapco Holdings LLC*, 967 F.3d 1285, 1285 (Fed. Cir. 2020) (modifying its initial opinion on denial of rehearing).

118 *Id.* at 1304–05 (Moore, J., dissenting).

119 *Am. Axle & Mfg., Inc. v. Neapco Holdings LLC*, 977 F.3d 1379, 1382 (Fed. Cir. 2020) (Moore, J., concurring in denial of the motion to stay).

Section 101 stretches beyond natural phenomena and into each of the judicial exceptions, including abstract ideas, as identified above.

Many have already noted the intertwining of other patentability bars with Section 101, including the nonobviousness requirement under § 103.<sup>120</sup> Likewise, Judge Moore's dissent in *American Axle* charges the majority with intertwining the gatekeeping requirements with § 112.<sup>121</sup> These splits in approaches to subject matter eligibility—particularly with respect to abstract ideas and computer technology—reflect a deemphasis on the property rights inherent in invention. It appears that such a split is rooted at least somewhat in a differing view on the purpose of subject matter eligibility standards and invention as a whole. No clearer can this be seen than in *Alice* itself. *Alice* prescribes a focus on an “inventive concept” and an improvement to computer technology.<sup>122</sup> These questions target the ability of the patent system to promote the development of technology. In other words, the Court is considering *first* that the aim of the patent system is to be an engine of innovation. *Then*, it asks: how much would granting this patent impede that aim? The problem with that approach, however, is that the analysis is too narrow in its view of the goals of the patent system. If one takes a view of the patent system as purely a government-granted monopoly to promote innovation, then perhaps this inquiry makes sense. However, when viewed through the lens of natural law, subject matter eligibility necessarily widens.

### C. *Improving Subject Matter Eligibility through Natural Law Principles*

The subject matter eligibility question is intended to assess whether the disclosure presented to the Patent Office describes a category of technology that is per se not an invention and is therefore barred from patentability.<sup>123</sup> Laws of nature, physical phenomena, and abstract ideas are all things that fall outside this test—they are not

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120 See, e.g., Annal D. Vyas, *Alice in Wonderland v. CLS Bank: The Supreme Court's Fantastic Adventure into Section 101 Abstract Idea Jurisprudence*, 9 AKRON INTELL. PROP. J. 1, 10 (2015).

121 *Am. Axle*, 967 F.3d at 1305 (Moore, J., dissenting) (calling the majority's “blended 101/112 analysis” “enablement on steroids”).

122 See *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208, 221, 225–26 (2014).

123 See *Diamond v. Chakrabarty*, 447 U.S. 303, 309 (1980) (quoting *Funk Brothers Seed Co. v. Kalo Inoculant Co.*, 333 U.S. 127, 130 (1948)) (describing “[t]he laws of nature, physical phenomena, and abstract ideas” as “manifestations of . . . nature, free to all men and reserved exclusively to none”). In *Chakrabarty*, the rationale in describing subject matter eligibility this way appears to be grounded on a belief that these categories of invention are excluded primarily because they are discoveries that are inherent in nature—they are not inventions.

inventions. Applying common good language to these exclusions, we would say that the “inventor” is not actually providing anything to the common good, because there has been no contribution by the individual that is deserving of private property protection. The conflation of noninvention with categorical exclusion is seen by comparing the eligibility analyses in *Association for Molecular Pathology v. Myriad Genetics, Inc.*<sup>124</sup> with *Mayo*. In *Myriad*, the Court exclaimed, “Myriad did not create anything. . . . [This] is not an act of invention.”<sup>125</sup> In other words, the Court was saying that the reason for having a “law of nature exception” was because there was nothing inventive about a law of nature in and of itself.<sup>126</sup> In *Mayo*, however, the Court asked whether “the patent claims add *enough* . . . to allow the processes they describe to qualify as patent-eligible processes that *apply* natural laws.”<sup>127</sup> Here, the language instead implies two separate inquiries: (1) what is the invention? and (2) how far away from the judicial exception is it? This essentially became the framework for the *Alice* two-step inquiry.<sup>128</sup> No longer were the judicial exceptions shorthand for per se lack of invention. Instead, an individual can now invent something, but if the invention is so close to the judicial exception, it fails to be eligible for exclusive property rights.

This approach is not aligned with a natural law understanding of private property. Recall that a Maritain-based rationale for patent law property rights is that patents are the tools by which one conducts his business.<sup>129</sup> A person is justified in holding the private property of an invention if he is using the invention to benefit the common good.<sup>130</sup> If this concept of private property is extended to patents, then the inquiry should be different from Court’s current analysis. Whether or not one may obtain a patent should instead be construed, in part, through the lens of whether the invention is benefitting the common good. If the invention does have the potential for benefitting the common good, then it is presumptively patent eligible. If it has a neutral or negative effect, then it is not.

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124 *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576 (2013).

125 *Id.* at 591.

126 *See id.*

127 *Mayo Collaborative Servs. v. Prometheus Lab’ys, Inc.*, 566 U.S. 66, 77 (2012).

128 *See Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 218, 221 (2014) (quoting *Mayo*, 566 U.S. at 72, 80) (“We must first determine whether the claims at issue are directed to a patent-ineligible concept. . . . At *Mayo* step two, we must examine the elements of the claim to determine whether it contains an ‘inventive concept’ sufficient to ‘transform’ the claimed abstract idea into a patent-eligible application.”).

129 *See supra* text accompanying notes 57–72.

130 *See supra* text accompanying notes 57–62.

Similarly, an analysis through John Finnis's framework yields a similar result. Finnis differentiated between subject matter not created by anybody and subject matter arising out of the willingness of individuals to collaborate to improve their position.<sup>131</sup> While Finnis's term "subject-matter"<sup>132</sup> was not used in the same manner as "subject matter eligibility" for patent law, the two uses still have parallels. Finnis listed examples of subject matter not created by anybody as including solar energy and light, and he listed examples of subject matter arising out of collaboration as including weapons or a drainage system.<sup>133</sup> The first category is strikingly similar to the judicial exceptions barring laws of nature, natural phenomena, and abstract ideas. However, unlike the judicial exceptions, Finnis's focus on lack of creation is much more generalized than the specific categories of judicial exceptions.

The judicial exceptions are, in reality, species of the kinds of property that Finnis identifies. Whereas Finnis states that the subject matter not created by anybody (as a whole) is "common stock,"<sup>134</sup> the judicial exceptions instead identify three such subcategories that would fall under Finnis's common stock. It does appear that Finnis's concern is a similar one to that of the Supreme Court, however. Both Finnis and the Court attempt to address an unjust division of resources: Finnis is concerned with the coopting of all resources that would be to the detriment of the good of individuals in society.<sup>135</sup> The Court is concerned with the "monopolization of . . . tools" that would "impede innovation."<sup>136</sup> The Supreme Court's approach, however, fails to justly address this concern. By focusing on specific examples of ineligible concepts instead of the concepts themselves, the Court is actually taking steps *away* from natural law and is consequently reducing the strength of patent rights.

The current state of subject matter eligibility highlights this expanding distance between any natural law basis for patentability of inventions. Whereas previously advocates found it advantageous to argue that an "[i]nvention, as a right of property, . . . is more like acquisitions by the original right of nature,"<sup>137</sup> such an argument would have almost no weight under the current subject matter eligibility standard. Previously, the inquiry was based on whether one had invented something at all; now the test is whether or not one has

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131 See FINNIS, *supra* note 67, at 167.

132 *Id.*

133 *See id.*

134 *Id.*

135 *See id.* at 168.

136 *Mayo Collaborative Servs. v. Prometheus Lab'ys, Inc.*, 566 U.S. 66, 71 (2012).

137 WEBSTER, *supra* note 48, at 2.

invented something that is within a judicial exception. Because of this extra hurdle, the test is underinclusive. Many software products that are contributing some good to society are not eligible for patent protection not because they are not inventions but because they have not “add[ed] *enough*” to be far away from a per se exclusionary category.<sup>138</sup> Instead, these are more like Finnis’s second category of property: subject matter arising out of the collaboration of individuals. As Finnis identifies, his concepts have “implications in many fields of activity, not least in . . . economic activity.”<sup>139</sup> And this is precisely where inventions sit—patents are tools of a craft that, like Maritain claims, are part of the “vocation of human nature to elaborate raw material according to a rational design.”<sup>140</sup> When inventions such as computer programs are used by a business to benefit the common good, they thus warrant private property protection. The current test for patent eligibility steps away from this right by requiring a comparison not to what is “common stock,” or things that are available to all. Instead, it asks how deserving something is of patentability compared to a single species within that “common stock.”

In other words, asking whether a technology is similar to a species of patent ineligible concepts (instead of asking whether the technology benefits the common good) effectively jettisons the idea of justice inherent in the efficient distribution of private property—and further removes the duty to benefit society with this technology. The current precedent changes the focus to an inventor’s impedance or promotion of economic progress. Not only is this short sighted, but it is what § 102 and § 103 are already geared to address through anticipation and obviousness hurdles.<sup>141</sup> The purpose of Section 101 should be to merely provide a gateway question: is this an invention? If so, it is patent eligible. Recognizing a natural law basis for granting these patents provides the most effective means by which to judge whether something should be patent eligible. The “engine of innovation” concern expressed by the Court is inevitably tied up into preemption. But preemption is not the question we should be asking. Instead, it should be, “is this technology contributing to the common good?” If so, it is meeting the goals of patenting. Therefore, it should be patent eligible.

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138 See *Mayo*, 566 U.S. at 77.

139 FINNIS, *supra* note 67, at 169.

140 Maritain, *supra* note 54, at 105.

141 See 35 U.S.C. §§ 102–03 (2018).

#### D. A Legislative Solution

At the time of writing this Note, a petition for certiorari has been filed in *American Axle*.<sup>142</sup> The Supreme Court has invited the Solicitor General to weigh in on the government's opinion.<sup>143</sup> Though the ultimate decision in *American Axle* may change Section 101 jurisprudence, I believe the legislature is the appropriate place to refocus patent law on both *eligibility* and the natural law. Both Congress and some voices at the Federal Circuit have indicated that any change to Section 101 should come from Congress.<sup>144</sup>

Luckily, senators have begun to lay the groundwork for such changes. In 2019, Senators Tillis and Coons published a press release outlining proposed changes to subject matter eligibility law.<sup>145</sup> The proposal included many changes to Section 101, including explicit removal of the judicially defined exceptions.<sup>146</sup> Additionally, one seemingly modest change includes amending 35 U.S.C. § 100 to read: "The term 'useful' means any invention or discovery that provides specific and practical utility in any field of technology through human intervention."<sup>147</sup> This change is notable for a couple reasons.

First, it is curious that in a proposal to adjust subject matter eligibility, the senators felt the need to adjust the definition of "utility," a separate provision of § 100.<sup>148</sup> Utility is a separate inquiry from subject matter eligibility, which the rest of the proposal was directed

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142 See Petition for Writ of Certiorari, *Am. Axle & Mfg., Inc. v. Neapco Holdings LLC*, 89 U.S.L.W. 3233 (U.S. Dec. 28, 2020) (No. 20-891).

143 See *Am. Axle & Mfg., Inc. v. Neapco Holdings LLC*, 141 S. Ct. 2594 (2021) (mem.).

144 For Congress, see CONG. RSCH. SERV., LSB10344, JUDGES URGE CONGRESS TO REVISE WHAT CAN BE PATENTED 4 (2020) (stating that due to the similarity of facts between *Athena* and *Mayo*, "Congress may be the central avenue for revisions to section 101."), and for the Federal Circuit, see *Athena Diagnostics, Inc. v. Mayo Collaborative Servs., LLC*, 927 F.3d 1333, 1336 (Fed. Cir. 2019) (Lourie, J., concurring with denial of rehearing en banc) ("Accordingly, as long as the Court's precedent stands, the only possible solution lies in the pens of claim drafters or legislators.") and *id.* at 1363 (Moore, J., dissenting from denial of rehearing en banc) ("While we believe that such claims should be eligible for patent protection, the majority of this court has definitively concluded that the Supreme Court prevents us from so holding. No need to waste resources with additional en banc requests. Your only hope lies with the Supreme Court or Congress. I hope that they recognize the importance of these technologies, the benefits to society, and the market incentives for American business. And, oh yes, that the statute clearly permits the eligibility of such inventions and that no judicially-created exception should have such a vast embrace. It is neither a good idea, nor warranted by the statute.").

145 See THOM TILLIS: U.S. SENATOR FOR N.C., *supra* note 1.

146 See *id.*

147 *Id.*

148 See 35 U.S.C. § 100 (2018).

to.<sup>149</sup> My guess, however, is that drafters intended to focus on subject matter eligibility and not utility.<sup>150</sup> Such an approach is consistent with the goals of the proposed legislation as a whole. Representative Johnson, commenting on his work with the proposed legislation, states, “Section 101 of the Patent Act is foundational to the patent system, but recent court cases have upset what should be solid ground.”<sup>151</sup> Based on this stated purpose, it’s likely that the intent was to address subject matter eligibility.

Second, the adoption of a “human intervention” standard paves the way for a recognition of natural law principles in patent law. The concept of human intervention is not completely unknown in patent case law. In essence, this is what the Supreme Court appeared to be striving for in *Diamond v. Chakrabarty*.<sup>152</sup> By requiring that the new bacterium have “markedly different characteristics from any found in nature,” the Court was implying that nonnatural characteristics would come from human intervention.<sup>153</sup> This question makes sense when considering an inventor-centric patent system. Essentially, the inquiry is whether something was invented at all.

In subsequent subject matter eligibility cases, however, the Court applied various other rationales. In *Mayo*, for example, the Court stated that to qualify as patent eligible subject matter, an invention must include an “inventive concept” in order to avoid monopolies on laws of nature.<sup>154</sup> The next term, the Court held in *Myriad* that “Myriad did not create anything,” but the term “inventive concept” did not appear once.<sup>155</sup> And in *Alice*, the Court brought “inventive concept” back with vigor to abstract ideas and other judicial exceptions.<sup>156</sup> This “inventive concept” framing, though, shifts the focus away from the inventor and instead to the public: no longer is the Court determining whether a human has labored to produce something valuable to the

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149 See THOM TILLIS: U.S. SENATOR FOR N.C., *supra* note 1.

150 This isn’t a unique misapplication of utility instead of subject matter eligibility. See Tun-Jen Chiang, *The Rules and Standards of Patentable Subject Matter*, 2010 WIS. L. REV. 1353, 1364 n.60 (2010) (“The requirement of utility is often traced to § 101. *Brenner v. Manson*, 383 U.S. 519, 528–29 (1966). Utility, however, is considered distinct from subject matter.”)

151 See THOM TILLIS: U.S. SENATOR FOR N.C., *supra* note 1.

152 See *Diamond v. Chakrabarty*, 447 U.S. 303 (1980).

153 See *id.* at 310 (“[The] discovery is not nature’s handiwork, but his own; accordingly it is patentable subject matter . . .”); see also Saurabh Vishnubhakat, *The Antitrust of Patentability*, 48 SETON HALL L. REV. 71, 90 (2017) (arguing that by requiring “the potential for *significant utility*,” the *Chakrabarty* Court “was satisfied that the invention’s utility arose primarily from human intervention”).

154 See *Mayo Collaborative Servs. v. Prometheus Lab’s, Inc.*, 566 U.S. 66, 82 (2012).

155 *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 591 (2013).

156 See *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 222 (2014).

common good. The analysis in *Myriad* was not far from a proper analysis of invention. Ignoring any potential obviousness issues, if something did exist in nature, it is not the product of human intervention and therefore cannot result in patent eligible subject matter.

This proposal by the legislature to adopt a “human intervention” standard returns the assessment of subject matter eligibility into an inventor-centric inquiry and significantly eases the challenge of deciding which computer-implemented inventions are, in fact, not inventions at all. As indicated above, many computer-based inventions are invalidated under Section 101 as being directed toward abstract ideas.<sup>157</sup> This can result in significant ambiguity as to why certain computer technology (especially software) is an improvement, while others are not.<sup>158</sup> Applying a “human intervention” standard to a computer technology eligibility analysis demarcates a much clearer line between technology that is an invention and those that are not. Because of its inventor-centric approach, the analysis also returns the patent system to one that is more closely grounded in line with the natural law.

I propose that the principle governing the eligibility of software inventions should be: “Is the software a but-for product of human intervention, or did it exist before humans intervened?” The administrability of such a line can be seen when reapplied to past cases. For example, a self-referential table does not exist but-for the human intervention.<sup>159</sup> For inventions addressing living organisms, this may work as well: lab-created microorganisms, though alive, would not exist but-for human intervention.<sup>160</sup> Isolated DNA, on the other hand, would not be patent eligible; yet lab-created complementary DNA would be.<sup>161</sup> No longer would courts have to muddle through whether an invention is “significantly more” than a judicial exception and participate in case-by-case fact comparisons to determine whether they are too close to those concepts. Instead, the human-intervention rule would provide a clean way to interpret what is an invention from what is not an invention.

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157 See *supra* text accompanying notes 105–14.

158 *Id.*

159 *Cf.* *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327 (Fed. Cir. 2016).

160 *Cf.* *Diamond v. Chakrabarty*, 447 U.S. 303 (1980).

161 *Cf.* *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576 (2013).

## CONCLUSION

Though patent law in the United States is statutory, there is some indication that the natural law played a role in the historical origins of patent law. In adopting judicial exceptions to subject matter eligibility, however, the Supreme Court has steered patent law jurisprudence away from any potential natural law rationales and consequently deemphasized patent property rights. As discussed above, implementing legislative changes to shift the focus of subject matter eligibility to “human intervention” may rectify some of these problems.

Notably, there are two corollaries that come from adopting a “human intervention” approach. First, such a test places much more reliance on the other requirements of patentability (e.g., §§ 102, 103, and 112) to ensure that exclusive rights in patent eligible inventions have not, in fact, already been granted to another person or dedicated to the public.<sup>162</sup> Even though certain inventions should be patent eligible, since they benefit the common good, they can still only be given to one inventor or set of co-inventors.<sup>163</sup> Ensuring a robust anticipation and non-obviousness analysis further bolsters an understanding that patent rights are property rights that can be held only by those with a true ownership interest in the patent. Second, this may require the adoption of additional changes to § 112’s enablement requirements to ensure that future technology is not preempted.<sup>164</sup> A similar case to Morse’s famously-invalidated patent on attempting to claim all communication via electro-magnetism, for example, may be addressed through strict enablement requirements.<sup>165</sup> How can one preempt future technology if he has not invented it yet?

Focusing on human intervention would place patent law jurisprudence more in line with the natural law. The question should not be whether granting the patent would impede the progress of technology—though that should be one of the ancillary benefits of patent law. Instead, the question should be whether something was invented at all. Is the invention a means of production that an inventor is entitled to as an intellectual maker? Or does it lack the influence of an intellectual maker, and is it therefore merely purely a common

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162 Certain academics have identified that this balance is already broken. See, e.g., David O. Taylor, *Confusing Patent Eligibility*, 84 TENN. L. REV. 157, 158 (2016).

163 See Maritain, *supra* note 54, at 103.

164 See generally 35 U.S.C. § 112 (2018).

165 See *O’Reilly v. Morse*, 56 U.S. (15 How.) 62, 112 (1854). But see Adam Mossoff, *O’Reilly v. Morse and Claiming a “Principle” in Antebellum Era Patent Law*, 71 CASE W. RES. L. REV. 735, 737–38 (2020) (claiming the debate over the rationale for the invalidation of Morse’s patent to be anachronistic, since there are significant differences in Antebellum Era patent law and the settled legal practice in patent law was not followed).

resource? Such an approach would improve the patent system's administrability and boost inventors' confidence in their ability to secure rights to their inventions. And in this way, it would contribute to the common good.