Federal Circuit Bar *Journal*

The National Quarterly Review of the United States Court of Appeals for the Federal Circuit

Volume 32, Number 2

Published by
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Federal Circuit Bar Journal
Volume 32, Number 2

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★ Fostering Innovation Through a Legislative Overhaul of Patentable Subject Matter

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Vol. 32 No. 2

Fostering Innovation Through a Legislative Overhaul of Patentable Subject Matter

Chad Rafetto*

Introduction

A bedrock principle of patent law is that an invention must be useful, novel, and nonobvious to be patentable. These requirements for patentability are embodied respectively in 35 U.S.C. §§ 101, 102, and 103, last amended by the Leahy-Smith America Invents Act.[1] However, a fourth category—patentable subject matter or patent eligibility, which is also found in § 101—has taken on renewed importance in the last decade.

Despite significant legislative reforms to other doctrines of patentability in 1952[2] and 2011,[3] the substance of the patent eligibility requirement has been largely unchanged since the 1790s.[4] Yet the Supreme Court has recently addressed patentable subject matter more frequently than any other doctrine of patent law. Since 2010, the Supreme Court has decided four § 101 cases[5] and denied certiorari in several others.[6] These Supreme Court decisions have

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* Judicial Law Clerk for Chief Judge Colm F. Connolly of the United States District Court for the District of Delaware. J.D., May 2022, New York University School of Law. Thank you to Professor Rochelle Dreyfuss, the Federal Circuit Bar Association, and the *Federal Circuit Bar Journal* for helping me write and publish this Article.

[1] *See* 35 U.S.C. §§ 101–103 (2018).

[2] *See* Patent Act of 1952, Pub. L. No. 82-593, 66 Stat. 792.

[3] *See* Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011).

[4] *See* Shahrokh Falati, *To Promote Innovation, Congress Should Abolish the Supreme Court Created Exceptions to 35 U.S. Code § 101*, 28 Tex. Intell. Prop. L.J. 1, 8 (2019); Garrett Tobin, *Is the U.S.P.T.O. Turning* Alice *into EPC Article 52?*, 62 Ariz. L. Rev. 1121, 1122 (2020).

[5] *See* Bilski v. Kappos, 561 U.S. 593 (2010); Mayo Collaborative Servs. v. Prometheus Lab'ys, Inc., 566 U.S. 66 (2012); Ass'n for Molecular Pathology v. Myriad Genetics, Inc., 569 U.S. 576 (2013); Alice Corp. Pty. Ltd. v. CLS Bank Int'l, 573 U.S. 208 (2014).

[6] *See* Berkheimer v. HP Inc., 881 F.3d 1360 (Fed. Cir. 2018), *cert. denied*, 140 S. Ct. 911 (2020); Vanda Pharms. Inc. v. West-Ward Pharms. Int'l Ltd., 887 F.3d 1117 (Fed. Cir. 2018), *cert. denied*, 140 S. Ct. 911 (2020); Athena Diagnostics, Inc. v. Mayo Collaborative Servs., LLC, 915 F.3d 743 (Fed. Cir. 2019), *cert. denied*, 140 S. Ct. 855 (2020); Power Analytics Corp. v. Operation Tech., Inc., 748 F. App'x 334 (Fed. Cir. 2019), *cert. denied*, 140 S. Ct.

narrowed the types of inventions that are eligible for a patent.[7] Without any legislative reform to § 101, this raises two questions: (1) Why has the doctrine suddenly changed? and (2) Is this change desirable?

This Article advocates for a legislative overhaul of § 101 because the current patentable subject matter doctrine is legally flawed and hindering innovation. The legislative proposal is to list the types of technologies that are patent eligible, and the goal is to shift the exclusionary work currently being done by the subject matter doctrine to the other doctrines of patent law. Because patents protect innovation, the proposed list will be open-ended, and Congress may expand the list as inventors explore and discover new fields. On the legal front, this proposal aims to prevent a blending of doctrines—and relatedly a blending of questions of fact and questions of law—and to reconcile the conflicting case law on § 101. As a matter of policy, the objective is to restore America to the "gold standard"[8] of patentability by opening up the patent system to all types of innovation.

This Article has three parts: Part I will discuss the history of the doctrine from the Burger Court decisions through the modern day. It also will describe the current *Alice* Two-Step test for patent eligibility. Part II will detail how the current doctrine is legally flawed and harming innovation. Particularly, this part will discuss how other countries' patent regimes are now surpassing the United States' patent system. Part III will describe how a legislative change is necessary both to create a clear doctrine and to return the United States to the gold standard of patentability. It will also advocate for § 101 legislation that lists representative categories of patent-eligible technological areas and shifts more of the work currently being done by § 101 to the other doctrines of patentability.

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910 (2020); Cellspin Soft, Inc. v. Fitbit, Inc., 927 F.3d 1306 (Fed. Cir. 2019), *cert. denied*, 140 S. Ct. 907 (2020); ChargePoint, Inc. v. SemaConnect, Inc., 920 F.3d 759 (Fed. Cir. 2019), *cert. denied*, 140 S. Ct. 983 (2020); Trading Techs. Int'l, Inc. v. IBG LLC, 767 F. App'x 1006 (Fed. Cir. 2019), *cert. denied*, 140 S. Ct. 955 (2020); Trading Techs. Int'l, Inc. v. IBG LLC, 921 F.3d 1084 (Fed. Cir. 2019), *cert. denied*, 140 S. Ct. 954 (2020); SRI Int'l, Inc. v. Cisco Sys., 773 F. App'x 1090 (Fed. Cir. 2019), *cert. denied*, 140 S. Ct. 1108 (2020); Maxell, Ltd. v. Fandango Media, LLC, 779 Fed. App'x 745 (Fed. Cir. 2019), *cert. denied*, 140 S. Ct. 2509 (2020); Reese v. Sprint Nextel Corp., 774 F. App'x 656 (Fed. Cir. 2019), *cert. denied*, 140 S. Ct. 2507 (2020); Am. Axle & Mfg., Inc. v. Neapco Holdings LLC, 967 F.3d 1285 (Fed. Cir. 2020), *cert. denied*, 142 S. Ct. 2902 (2022); Procon Analytics, LLC v. Spireon, Inc., 2022 WL 167463 (Fed. Cir. Jan. 19, 2022), *cert. denied*, 142 S. Ct. 2904 (2022).

[7] *See* Falati, *supra* note 4, at 21, 23.

[8] Kevin Madigan & Adam Mossoff, *Turning Gold into Lead: How Patent Eligibility Doctrine Is Undermining U.S. Leadership in Innovation*, 24 Geo. Mason L. Rev. 939, 940 (2017).

I. Modern Patent Jurisprudence

The Constitution gives Congress the power "[t]o promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries."[9] Congress has chosen to effectuate this constitutional provision by giving inventors the right to exclude others from their patented inventions as a quid pro quo for the public disclosure of their inventions.[10] The disclosure requirement increases the storehouse of publicly available knowledge and facilitates further innovation.[11] In exchange for this disclosure, an inventor or group of inventors receive a patent, which encourages them to undergo the costs of researching, developing, and creating new inventions.[12]

To get a patent, an invention must meet each element of patentability. So, the invention must be useful, new, and nonobvious.[13] The patent application must also describe the invention with sufficient detail to ensure that it is actually disclosed to the public.[14] Finally, and the focus of this Article, the invention must meet the patentable subject matter requirement.[15] Although patentable subject matter is listed last in this paragraph, it is typically a threshold issue[16] when prosecuting or litigating a patent.

The statute for patentable subject matter allows a patent for any "process, machine, manufacture, or composition of matter" that fulfills the other requirements of patentability.[17] But the statute alone tells an incomplete story.

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[9] U.S. Const. art. 1, § 8, cl. 8.

[10] *See generally* Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011).

[11] *See* Mark A. Lemley et al., *Life After* Bilski, 63 Stan. L. Rev. 1315, 1328 (2011) (discussing the "storehouse of knowledge" available to the public and how patents add to this storehouse).

[12] *See* Kewanne Oil Co. v. Bicron Corp., 416 U.S. 470, 480 (1974); Rebecca Lindhorst, Note, *Two-Stepping Through* Alice*'s Wasteland of Patent-Eligible Subject Matter: Why the Supreme Court Should Replace the* Mayo/Alice *Test*, 69 Case W. Rsrv. L. Rev. 731, 735 (2019).

[13] *See* 35 U.S.C. §§ 101–103 (2018).

[14] *See id.* § 112.

[15] *See id.* § 101.

[16] *See* Falati, *supra* note 4, at 9. Falati explained:

> This statutory intent is and has been for over 200 years to set a low threshold bar to patentable subject matter, which the Supreme Court decades ago had recognized when stating that this includes "anything under the sun made by man," and yet, in direct contrast to the 35 U.S.C. § 101 statute, its legislative history and Congress's intent, recent Supreme Court jurisprudence now puts a very high bar on this threshold § 101 inquiry of what subject matter is even patent eligible.

Id. (quoting Diamond v. Chakrabarty, 447 U.S. 303, 309 (1980)).

[17] 35 U.S.C. § 101.

The case law further requires that even if an invention falls within one of these enumerated categories, any law of nature, physical phenomenon, or abstract idea is not patentable.[18] These three judicially made carve-outs are where the lion's share of the argumentation occurs.

One of the main policy rationales behind these judicially made carve-outs is preemption:[19] The building blocks of science should enter the public domain, and then patents should be granted on the downstream products that utilize these building blocks.[20] But if patents are granted for the building blocks themselves—what the Supreme Court has identified as laws of nature, physical phenomena, or abstract ideas—then innovation will be impeded because the patentee can either exclude these downstream products or increase the costs of innovation by licensing the right to produce these products at supracompetitive prices.[21] Thus, one of patent law's goals is to appropriately reward inventors without overly preempting future innovation.[22]

Patentable subject matter doctrine has been in flux recently with the Roberts Court deciding four cases between 2010 and 2014.[23] Prior to these cases, the last time the Supreme Court heard a patentable subject matter case was forty years ago under the Burger Court, which also heard four cases in the preceding decade.[24] This parallelism may suggest that patentable subject matter is cyclical, and as science advances, it presents new challenges for the legal system. Professors Rochelle Dreyfuss and James Evans discuss how this is not especially surprising:

> As new technological opportunities emerge, it is inevitable that there will be questions about how the law applies. It happened when the power of steam was first

[18] *See Chakrabarty*, 447 U.S. at 309 ("The laws of nature, physical phenomena, and abstract ideas have been held not patentable."); Parker v. Flook, 437 U.S. 584, 589 (1978); Gottschalk v. Benson, 409 U.S. 63, 67 (1972); Funk Bros. Seed Co. v. Kalo Inoculant Co., 333 U.S. 127, 130 (1948).

[19] *See* Lindhorst, *supra* note 12, at 746 ("The Court's analysis of patent eligibility is driven by a concern of preemption.").

[20] *See* Lemley et al., *supra* note 11, at 1328–29 (discussing the patenting of building blocks and what qualifies as a building block); Mayo Collaborative Servs. v. Prometheus Lab'ys, Inc., 566 U.S. 66, 88–89 (2012) (identifying the building blocks concept).

[21] *See* Lemley et al., *supra* note 11, at 1328–29 (discussing the issues of patenting the building blocks).

[22] *See, e.g.*, Janet Freilich, *Paths to Downstream Innovation*, 55 U.C. Davis L. Rev. 2209, 2217 (2022).

[23] *See* Bilski v. Kappos, 561 U.S. 593 (2010); *Mayo*, 566 U.S. 66; Ass'n for Molecular Pathology v. Myriad Genetics, Inc., 569 U.S. 576 (2013); Alice Corp. Pty. Ltd. v. CLS Bank Int'l, 573 U.S. 208 (2014).

[24] *See* Gottschalk v. Benson, 409 U.S. 63 (1972); Parker v. Flook, 437 U.S. 584 (1978); Diamond v. Chakrabarty, 447 U.S. 303 (1980); Diamond v. Diehr, 450 U.S. 175 (1981).

> exploited, when the effects of oxygen were discovered, when it became possible to manipulate electric current, and when differential solubility was understood. The recent rapid development of new sciences—such as molecular biology, genomics, electrical engineering, and information and communication technology—creates many fresh challenges.[25]

The next two sections will discuss how patentable subject matter jurisprudence developed during the Burger Court and during the Roberts Court.

A. Section 101 Under the Burger Court: Oh *Diehr*, We Have a Problem

When the Burger Court heard its first patentable subject matter case, *Gottschalk v. Benson*,[26] the law was superficially similar to today's in that any "process, machine, manufacture, or composition of matter"[27] was patentable unless it was a law of nature, physical phenomenon, or abstract idea.[28] Also similar to modern times, the Burger Court was challenged with determining whether then-emerging technologies were patentable.[29] But, unlike modern times, patentable subject matter was treated as a low bar because, among other reasons, the committee reports for the 1952 Act stated that "anything under the sun that is made by man" was intended to be patentable.[30]

In 1972, the Burger Court decided its first patentable subject matter case—*Gottschalk v. Benson*, in which the Court ruled on the patentability of software.[31] The claimed invention was a program to convert numbers from binary-coded decimals to pure binary format.[32] This process can be done either mentally or on any generic computer by using a standard equation.[33] The

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[25] Rochelle C. Dreyfuss & James P. Evans, *From* Bilski *Back to* Benson*: Preemption, Inventing Around, and the Case of Genetic Diagnostics*, 63 Stan. L. Rev. 1349, 1353 (2011) (footnotes omitted).

[26] 409 U.S. 63 (1972).

[27] 35 U.S.C. § 101 (2018).

[28] *See* Funk Bros. Seed Co. v. Kalo Inoculant Co., 333 U.S. 127, 130 (1948).

[29] *See* Christopher B. Seaman & Sheena X. Wang, *An Inside History of the Burger Court's Patent Eligibility Jurisprudence*, 53 Akron L. Rev. 915, 916 (2019) ("The current quandary regarding patent eligibility is nothing new, however. In the 1970s and early 1980s, the Supreme Court was similarly challenged by inventors' attempts to obtain patent rights to a number of then-emerging technologies, including computer software and genetically-modified organisms.").

[30] S. Rep. No. 82-1979, at 5 (1952); H.R. Rep. No. 82-1923, at 6 (1952); *see* Falati, *supra* note 4, at 9.

[31] *See* Gottschalk v. Benson, 409 U.S. 63 (1972); Falati, *supra* note 4, at 10.

[32] *See Gottschalk*, 409 U.S. at 64.

[33] *See id.* at 67.

Court identified the invention as an algorithm because it was a programmed version of the equation.[34]

The Supreme Court invalidated the patent as an abstract idea because the invention was merely a mathematical algorithm applied on an ordinary computer as opposed to a practical application of the algorithm.[35] If this patent was ruled to be eligible under § 101, then the patentee could have "wholly pre-empt[ed] the mathematical formula" regardless of the purpose for which the formula was being used.[36] This reasoning highlights the Supreme Court's focus on a patent's preemptive effect: an inventor cannot patent the "upstream" algorithm itself, but he may be able to patent a "downstream" invention that applies the algorithm to accomplish a task.[37]

In 1978, the Court was once again tasked with determining the patentability of a mathematical algorithm in *Parker v. Flook*.[38] Flook invented a method to update alarm limits during the catalytic conversion of hydrocarbons—a process widely used in the petrochemical and oil refinery industries.[39] An alarm limit occurs when one of the conditions of the conversion, such as temperature or pressure, exceeds a certain threshold.[40] Its purpose is to signal that the reaction has become inefficient or even dangerous.[41] The invention entails three steps: (1) taking a measurement, (2) calculating the applicable alarm limit using an equation, and (3) updating the alarm limit accordingly.[42] The only difference between Flook's invention and the prior art was the use of a mathematical algorithm in the second or "calculating" step.[43]

The Court began by stating that a patentable subject matter issue under § 101 is a distinct and different analysis than a novelty or nonobviousness issue under §§ 102 and 103.[44] The Court then rejected two arguments made in favor of granting the patent. First, the Court rejected the notion that Flook

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[34] *See id.* at 65.

[35] *See id*. at 71–72.

[36] *Id.* at 72.

[37] *See id.* at 71–72.

[38] 437 U.S. 584 (1978).

[39] *See id.* at 594.

[40] *See id.* at 585.

[41] *See id.*

[42] *See id.*

[43] *See id.*

[44] *See id.* at 588. The Court opined:

> This case turns entirely on the proper construction of § 101 of the Patent Act, which describes the subject matter that is eligible for patent protection. It does not involve the familiar issues of novelty and obviousness that routinely arise under §§ 102 and 103 when the validity of a patent is challenged.

Id. (footnote omitted).

confining his invention to the petrochemical industry reduced the preemption concern that was present in *Gottschalk v. Benson*.[45] This rejection has been understood to mean that a broad, preemptive concept does not become patentable by simply applying it to a particular industry—such as the petrochemical industry in this case.[46] Second, the Court rejected the argument that the post-solution activity of adjusting the alarm limit made Flook's invention more than a patent on merely an algorithm.[47] The Court stated that a skilled draftsman of a patent application would be able to highlight post-solution activity for nearly any invention, and the skill of the draftsman should not dictate whether something is patent eligible.[48] The Court ultimately rejected the patent because there was not an "inventive concept" that transformed the invention from an unpatentable principle into a patent-eligible application of that principle.[49]

Under the Burger Court, this case represented the high-water mark for using § 101 to invalidate or prevent the issuance of a patent. The next two cases, however, were thought to revert the doctrine to a low threshold by implicitly overruling *Flook*.[50]

The Court next heard *Diamond v. Chakrabarty*[51] in 1980. The invention in *Chakrabarty* was a genetically engineered bacterium that could break down

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[45] *See id.* at 589–90. The Court further opined:

> [Flook] does not seek to "wholly preempt the mathematical formula," since there are uses of his formula outside the petrochemical and oil-refining industries that remain in the public domain. And he argues that the presence of specific "post-solution" activity—the adjustment of the alarm limit to the figure computed according to the formula—distinguishes this case from *Benson* and makes his process patentable. We cannot agree.

Id.

[46] *See* MPEP § 2106.05(h) (9th ed. Rev. 4, June 2020) ("[L]imitations that amount to merely indicating a field of use or technological environment in which to apply a judicial exception do not amount to significantly more than the exception itself, and cannot integrate a judicial exception into a practical application.").

[47] *See Flook*, 437 U.S. at 589–90.

[48] *See id.* at 593.

[49] *See id.* at 594 ("Conversely, the discovery of such a phenomenon cannot support a patent unless there is some other inventive concept in its application.").

[50] *See* Falati, *supra* note 4, at 11 (*Chakrabarty* and *Diehr* effectively overruled *Flook*); Ognjen Zivojnovic, *Patentable Subject Matter After* Alice*—Distinguishing Narrow Software Patents from Overly Broad Business Method Patents*, 30 Berkeley Tech. L.J. 807, 814 (2015) ("Even though *Diehr* did not explicitly overrule *Flook*, the two cases are difficult, if not impossible, to harmonize.").

[51] 447 U.S. 303 (1980).

crude oil and assist in cleaning up oil spills.[52] Notably, the bacterium was not naturally occurring, and the Court deemed it a man-made creation.[53]

The Court allowed a patent for this live, human-made microorganism because it was the product of man—not the product of nature.[54] In making this decision, the Court made a few statements about the broad scope of patentable subject matter. First, the Court stated, "Congress plainly contemplated that the patent laws would be given wide scope."[55] Second, the Court emphasized how the legislative history also supported a broad construction because "[t]he Committee Reports accompanying the 1952 Act inform us that Congress intended statutory subject matter to 'include anything under the sun that is made by man.'"[56] Last, the Court noted that innovations are by definition unforeseeable and the patent statute used broad language for exactly that reason.[57] In short, because patent law deals with inventions that have yet to be discovered, the statute should not be read narrowly.[58]

Finally, in 1981 the Court heard *Diamond v. Diehr*[59]—a case with another attempt to patent a computer program.[60] The invention in *Diehr* was "a process for molding raw, uncured synthetic rubber into cured precision products."[61] Because curing rubber requires monitoring several factors simultaneously, Diehr used the Arrhenius equation—a well-known equation in the field—applied via a computer program to achieve the ideal result.[62] The invention's advancement over the prior art was that it measured the temperature *inside of the mold* and then fed this data into the computer to improve curing outcomes.[63]

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[52] *See id*. at 305.

[53] *See id.* at 309.

[54] *See id.*

[55] *Id.* at 308.

[56] *Id.* at 309 (quoting S. Rep. No. 82-1979, at 5 (1952); H.R. Rep. No. 82-1923, at 6 (1952)).

[57] *See id.* at 316. The Court opined:

> A rule that unanticipated inventions are without protection would conflict with the core concept of the patent law that anticipation undermines patentability. Mr. Justice Douglas reminded that the inventions most benefiting mankind are those that "push back the frontiers of chemistry, physics, and the like." Congress employed broad general language in drafting § 101 precisely because such inventions are often unforeseeable.

Id. (footnote omitted) (citations omitted).

[58] *See id.*

[59] 450 U.S. 175 (1981).

[60] *See id.* at 177.

[61] *Id.*

[62] *See id.* at 177–79.

[63] *See id.* at 178–79.

Though the invention was similar to *Flook*'s, which was denied a patent, the Court granted the patent in *Diehr* because "the respondents here do not seek to patent a mathematical formula. Instead, they seek patent protection for a process of curing synthetic rubber."[64] The Court also discussed the preemptive effects of granting this patent and noted that the patent did "not seek to pre-empt the use of that equation. Rather, [the inventors sought] only to foreclose from others the use of that equation in conjunction with all of the other steps in their claimed process."[65] So the Court drew the distinction that though abstract ideas, laws of nature, and physical phenomena cannot be patented, "an *application* of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection."[66]

The Court also restated the proposition from *Flook* that patentable subject matter and novelty are distinct inquiries and novelty is an inappropriate consideration when deciding patentable subject matter.[67] Specifically, the Court articulated that "[t]he question therefore of whether a particular invention is novel is 'wholly apart from whether the invention falls into a category of statutory subject matter.'"[68] The Court supported this statement by citing the structure of the statute as well as the legislative history.[69]

Given the similarities of this case to *Flook*, it was thought that *Diehr* effectively overturned *Flook* despite both cases remaining good law.[70] Professor Shahrokh Falati states there were two main takeaways following *Diehr*: "First, that abstract principles are not patent eligible, and yet practical applications of those principles are patent eligible, and second that prior art and issues

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[64] *Id.* at 187; *see also* Parker v. Flook, 437 U.S. 584, 594 (1978).

[65] *Diehr*, 450 U.S. at 187.

[66] *Id.* (citation omitted).

[67] *See Flook*, 437 U.S. at 588; *Diehr*, 450 U.S. at 189. The Court opined:

> It has been urged that novelty is an appropriate consideration under § 101. . . . Section 101, however, is a general statement of the type of subject matter that is eligible for patent protection "subject to the conditions and requirements of this title." Specific conditions for patentability follow and § 102 covers in detail the conditions relating to novelty.

Id. (quoting 35 U.S.C. § 101 (1976)).

[68] *Id.* at 190 (quoting *In re* Bergy, 596 F.2d 952, 961 (C.C.P.A. 1979), *vacated in part sub nom.* Diamond v. Chakrabarty, 444 U.S. 1028 (1980), *and aff'd sub nom.* Diamond v. Chakrabarty, 447 U.S. 303 (1980)).

[69] *See id.* (noting that "[t]he legislative history of the 1952 Patent Act is in accord with [the] reasoning" that § 101 subject matter and § 102 novelty are distinct and separate (citing S. Rep. No. 82-1979, at 5, 17 (1952); H.R. Rep. No. 82-1923, at 6, 7, 17 (1952))).

[70] *See* Falati, *supra* note 4, at 10–11 (noting that *Chakrabarty* and *Diehr* effectively overruled *Flook*); Zivojnovic, *supra* note 50, at 814 ("Even though *Diehr* did not explicitly overrule *Flook*, the two cases are difficult, if not impossible, to harmonize.").

related [to] novelty, obviousness or inventiveness play no role in determining patent eligibility under 35 U.S.C. § 101."[71]

B. Section 101 Under the Roberts Court: *Bilski* and Beyond

For nearly thirty years following the Burger Court's decisions, many patent lawyers considered patentable subject matter a low bar[72] and a mere "coarse eligibility filter."[73] And thousands of patents were issued in computer software and biotechnology innovations.[74] But in the span of four years, the Roberts Court drastically narrowed patentable subject matter doctrine[75] despite the substance of patent eligibility law remaining largely unchanged since the 1790s.[76] Though new legislation significantly changed other aspects of patent law in 1952[77] and 2011,[78] patentable subject matter had remained largely untouched.[79] Yet the Supreme Court took action.

The Roberts Court decided *Bilski v. Kappos*[80] in 2010 and then proceeded to hear three more patentable subject matter cases in the next four years.[81] As with the Burger Court, the Roberts Court was tasked with applying patent law to new forms of technology, such as the expansion of business method

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[71] Falati, *supra* note 4, at 12 (footnotes omitted).

[72] *See id.* at 9 ("This statutory intent is and has been for over 200 years to set a low threshold bar to patentable subject matter . . . .").

[73] Rsch. Corp. Tech., Inc. v. Microsoft Corp., 627 F.3d 859, 869 (Fed. Cir. 2010).

[74] *See* Seaman & Wang, *supra* note 29, at 917 ("These decisions ultimately opened the door to thousands of patents covering computer software and biotechnology innovations.").

[75] *See* Falati, *supra* note 4, at 21 ("As it stands, the four recent Supreme Court decisions have dramatically narrowed the scope of patent protection for innovation-dependent industries by significantly expanding the judicially-created exceptions to subject matter that is listed in the statute as eligible for a patent." (footnote omitted)).

[76] *See id.* at 8, 26; Tobin, *supra* note 4, at 1122.

[77] *See generally* Patent Act of 1952, Pub. L. No. 82-593, 66 Stat. 792.

[78] *See generally* Leahy-Smith America Invents Act, Pub. L. No. 112–29, 125 Stat. 284 (2011).

[79] *See* Falati, *supra* note 4, at 8, 26; Tobin, *supra* note 4, at 1122. The Supreme Court nearly heard *Laboratory Corp. of America Holdings v. Metabolite Laboratories, Inc.* (involving a patent for a process to diagnose vitamin deficiencies) in 2006, but the Court dismissed the writ of certiorari as improvidently granted with Justices Breyer, Stevens, and Souter dissenting. *See* Lab'y Corp. of Am. Holdings v. Metabolite Lab'ys, Inc., 548 U.S. 124, 125 (2006); *id.* at 125 (Breyer, J., dissenting).

[80] 561 U.S. 593 (2010).

[81] *See* Mayo Collaborative Servs. v. Prometheus Lab'ys, Inc., 566 U.S. 66 (2012); Ass'n for Molecular Pathology v. Myriad Genetics, Inc., 569 U.S. 576 (2013); Alice Corp. Pty. Ltd. v. CLS Bank Int'l, 573 U.S. 208 (2014).

patents to computers,[82] diagnostics,[83] isolated DNA segments,[84] and automated settlement risk mitigation programs.[85] Preemption also appears to have been a concern for the Roberts Court.[86] But the Burger Court emerged from its cluster of patent law cases with a broad patentable subject matter doctrine, whereas the Roberts Court significantly narrowed the doctrine.

One possible explanation for the Roberts Court's sudden interest in patentable subject matter is that the Court granted certiorari in *Bilski* merely to correct the expansion of the "machine or transformation" test that the United States Court of Appeals for the Federal Circuit ("Federal Circuit") initially adopted in *State Street Bank & Trust v. Signature Financial Group*.[87] The invention in *State Street* was a data processing accounting system to manage mutual fund investment structures.[88] In *State Street*, the Federal Circuit cited *Diehr* for the proposition that abstract ideas must be reduced to a practical application and must produce a useful, concrete, and tangible result to be patentable.[89] The Federal Circuit then created the machine or transformation test in which the "transformation of data . . . by a machine through a series of mathematical calculations into a final share price, constitutes a practical application of a mathematical algorithm."[90] The upshot of the test was that if the invention was reduced to a machine or involved a transformation of some kind, then it was patent eligible.[91]

The specific question in *Bilski* was whether business methods were patentable subject matter, but the Supreme Court focused mainly on the machine

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[82] *See Bilski*, 561 U.S. at 599.

[83] *See Mayo*, 566 U.S. at 74–75.

[84] *See Myriad*, 569 U.S. at 580.

[85] *See Alice*, 573 U.S. at 213.

[86] *See Mayo*, 566 U.S. at 72 ("[The Court's precedents] warn us against upholding patents that claim processes that too broadly pre-empt the use of a natural law." (citations omitted)); *Alice*, 573 U.S. at 223 ("This conclusion accords with the pre-emption concern that undergirds our § 101 jurisprudence.").

[87] 149 F.3d 1368 (Fed. Cir. 1998), *abrogated by In re* Bilski, 545 F.3d 943 (Fed. Cir. 2008) (en banc).

[88] *See id.* at 1370.

[89] *See id.* at 1373 ("In *Diehr*, the Court explained that certain types of mathematical subject matter, standing alone, represent nothing more than abstract ideas until reduced to some type of practical application, i.e., 'a useful, concrete and tangible result.'" (citation omitted)).

[90] *Id.*

[91] *See* Lemley et. al., *supra* note 11, at 1316 ("[The Supreme Court] also rejected as the sole test of subject matter eligibility the Federal Circuit's deeply-flawed machine-or-transformation test, under which no process, and perhaps no invention of any type, is patentable unless it is tied to a particular machine or transforms an article to another state or thing." (citing *In re Bilski*, 545 F.3d at 954)).

or transformation test.[92] When *Bilski* was heard by the Federal Circuit, the court had expanded the machine or transformation test and held "[a] claimed process is surely patent-eligible under § 101 if: (1) it is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing."[93] The claimed invention was for hedging—"a procedure for instructing buyers and sellers how to protect against the risk of price fluctuations"[94]—and it gave a series of steps to follow and then a mathematical formula to create the desired hedge for a business transaction.[95]

The Supreme Court disagreed that the machine or transformation test was the definitive test; rather, it was merely a clue.[96] The Court justified this point by citing *Chakrabarty* for the proposition that a categorical rule about what is patentable would be contrary to the purposes of patent law because patent law deals with unforeseeable inventions.[97] Justice Breyer's concurring opinion also highlighted that if the machine or transformation as formulated in *State Street* was taken literally, then awarding a patent for anything that produces a "useful, concrete and tangible result"[98] would contradict prior case law such as *Flook*.[99]

In addition to deciding that the machine or transformation test was not the sole test, the Court also took another stand against categorical rules by refusing to rule that business methods as a class were not patentable.[100] But the Court agreed that this particular patent was ineligible because it attempted to patent an abstract idea.[101] The Court ruled that the invention was an abstract idea based on precedent from *Benson*, *Flook*, and *Diehr*. Notably, the Court said that "*Flook* stands for the proposition that the prohibition against patenting abstract ideas 'cannot be circumvented by attempting to limit the use of

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[92] *See* Bilski v. Kappos, 561 U.S. 593, 597–98, 606–07 (2010).

[93] *In re Bilski*, 545 F.3d at 954.

[94] *Bilski*, 561 U.S. at 598.

[95] *See id.* at 599.

[96] *See id.* at 604 ("This Court's precedents establish that the machine-or-transformation test is a useful and important clue, an investigative tool, for determining whether some claimed inventions are processes under § 101. The machine-or-transformation test is not the sole test for deciding whether an invention is a patent-eligible 'process.'").

[97] *See id.* at 605 ("A categorical rule denying patent protection for 'inventions in areas not contemplated by Congress . . . would frustrate the purposes of the patent law.'" (quoting Diamond v. Chakrabarty, 447 U.S. 303, 315 (1980))).

[98] State St. Bank & Tr. Co. v. Signature Fin. Grp., Inc., 149 F.3d 1368, 1373 (Fed. Cir. 1998), *abrogated by In re* Bilski, 545 F.3d at 943.

[99] *See Bilski*, 561 U.S. at 659 (Breyer, J., concurring) (identifying cases where the machine-or-transformation test would reach the opposite result of the Court).

[100] *See id.* at 609.

[101] *See id.*

the formula to a particular technological environment' or adding 'insignificant post[-]solution activity.'"[102] The Court thus highlighted that the preemption concern cannot be avoided by limiting an idea to a certain environment and showed that, despite what many believed, *Flook* had not been implicitly overruled by *Diehr*.[103]

Though the Supreme Court initially may have heard *Bilski* for the limited purpose of correcting the machine or transformation test, the unequivocal revival of *Flook* and the endorsement of patents for business methods opened the floodgates for increased § 101 litigation. The increased litigation in turn may have caused the Supreme Court to revisit the doctrine over the ensuing years to provide clarity in the law. But only confusion has resulted.

Two years after *Bilski*, the Court heard *Mayo Collaborative Services v. Prometheus Laboratories*[104]—a case about a diagnostic device patent.[105] The invention was a process that determined the appropriate amount of thiopurine drugs to give a patient in the treatment of autoimmune diseases.[106] Because everyone metabolizes drugs differently, the invention created a process that correlated the requisite amount of thiopurine drugs to an individual's metabolite level—a product of one's metabolism—to aid a doctor in administering the correct drug dosage.[107] The process consisted of three steps: (1) administer the drug, (2) observe the relevant correlation, and (3) determine the appropriate dosage response based on the correlation.[108]

The Court took issue with this patent because the invention's only contribution was to inform doctors about the correlation—an ineligible natural law—and then use known, conventional steps to implement the natural law.[109] The Court upset the IP community[110] by ruling that the patent was ineligible subject matter because the claims did not do "significantly more" or "add *enough* . . . to qualify as patent-eligible processes that *apply* natural laws."[111] Rather, it was an attempt to patent the natural law itself.[112]

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[102] *Id.* at 610–11 (quoting Diamond v. Diehr, 450 U.S. 175, 191–92 (1981)).

[103] *See id.*

[104] 566 U.S. 66 (2012).

[105] *See id.* at 74–75.

[106] *See id.* at 73–74.

[107] *See id.* at 73.

[108] *See id.* at 78–79.

[109] *See id.*

[110] *See* Gene Quinn, *Killing Industry: The Supreme Court Blows* Mayo v. Prometheus, IPWatchdog (Mar. 20, 2012), http://www.ipwatchdog.com/2012/03/20/supreme-court-mayo-v-prometheus/id=22920/ [https://perma.cc/9UWZ-XRPA].

[111] *Mayo*, 566 U.S. at 77.

[112] *See id.* ("The question before us is whether the claims do significantly more than simply describe these natural relations. . . . We believe that the answer to this question is no.").

In making this decision, the Court emphasized significant case law. First, the Court referenced *Flook* for the proposition that patent eligibility should not depend on the ability of the drafter.[113] Rather, the invention itself must be more than just appending steps to an ineligible abstract idea, law of nature, or physical phenomenon.[114] Second, it highlighted the preemption concern by citing *Benson* to caution against "upholding patents that claim processes that too broadly pre-empt the use of a natural law."[115] Finally, it again referenced *Flook* for the proposition that there needs to be an "'inventive concept,' sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the natural law itself."[116] When searching for this inventive concept, the Court stated that "the § 101 patent-eligibility inquiry and, say, the § 102 novelty inquiry might sometimes overlap."[117] The Court mentioned this overlap of eligibility and novelty without overruling *Diehr*,[118] which specifically stated that § 101 subject matter determinations are separate and distinct from § 102 novelty determinations.[119] As will be discussed later, this is one of the key examples of blatantly conflicting § 101 case law.

If after *Bilski* there was any doubt that *Flook* was not implicitly overruled, *Mayo* ensured *Flook*'s viability. Ironically, the Court also warned "that too broad an interpretation of this exclusionary principle could eviscerate patent law,"[120] which is exactly what has happened in the modern day.

One year after *Mayo*, the Court heard *Association for Molecular Pathology v. Myriad Genetics*.[121] The invention in *Myriad* was the discovery of the location and the sequence of two genes that were linked to breast and ovarian cancer.[122]

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[113] *See id.* at 72.

[114] *See id.* at 82 ("Other cases offer further support for the view that simply appending conventional steps, specified at a high level of generality, to laws of nature, natural phenomena, and abstract ideas cannot make those laws, phenomena, and ideas patentable.").

[115] *Id.* at 72 (citation omitted).

[116] *Id.* at 72–73 (citing Parker v. Flook, 437 U.S. 584, 594 (1978)); *see* Jeffrey A. Lefstin, *Inventive Application: A History*, 67 Fla. L. Rev. 565, 641 (2015) ("*Mayo*'s 'inventive concept' came directly from *Parker v. Flook*." (citing *Mayo*, 566 U.S. at 72)).

[117] *Mayo*, 566 U.S. at 90.

[118] *See generally id.* (citing *Diehr* numerous times throughout the opinion as good law).

[119] *See* Diamond v. Diehr, 450 U.S. 175, 189 (1981). The Court opined:

> It has been urged that novelty is an appropriate consideration under § 101. . . . Section 101, however, is a general statement of the type of subject matter that is eligible for patent protection "subject to the conditions and requirements of this title." Specific conditions for patentability follow and § 102 covers in detail the conditions relating to novelty.

Id. (quoting 35 U.S.C. § 101 (1976)).

[120] *Mayo*, 566 U.S. at 71.

[121] 569 U.S. 576 (2013).

[122] *See id.* at 579–80. The two genes are the BRCA1 and BRCA2 genes. *See id.* at 582.

The inventors were the first to learn that these two genes were correlated with higher risks of breast and ovarian cancer, and they knew where in the genome to look and what sequence of genes to look for to detect these genes.[123] Myriad then attempted to patent the isolated DNA and the synthetically created complementary DNA ("cDNA") sequences of these two genes.[124]

The Court ruled that an isolated *naturally* occurring DNA segment is not patent eligible because it is a product of nature, but an isolated cDNA segment is patent eligible because it is created synthetically.[125] This ruling is notable because the Court did not apply the "inventive concept" approach from *Mayo*; rather, it focused on the *Chakrabarty* test of whether it was a patent-eligible invention by man or a patent-ineligible invention by nature.[126]

After *Myriad*, and despite the IP community's outrage following *Mayo*,[127] the Court reaffirmed the *Mayo* approach in *Alice Corp. Pty. Ltd. v. CLS Bank International*.[128] The invention in *Alice* was "a computerized scheme for mitigating 'settlement risk'—i.e., the risk that only one party to an agreed-upon financial transaction will satisfy its obligation. In particular, the claims are designed to facilitate the exchange of financial obligations between two parties by using a computer system as a third-party intermediary."[129]

The Court reaffirmed the rejection of this patent because it was an abstract idea.[130] The Court also cited *Mayo* for the creation of the following two-step test which is now the modern standard: (1) Is the claim drawn to a law of nature, physical phenomenon, or abstract idea? and (2) If yes, do the other claim elements amount to significantly more such that there is an inventive concept?[131] The Court, without further elaboration, stated that the abstract idea of mitigating settlement risk applied on an ordinary computer "is not '*enough*' to transform an abstract idea into a patent-eligible invention."[132] The Court also highlighted that "the concern that drives this exclusionary principle [is] one of pre-emption."[133]

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[123] *See id.* at 579–80 ("[Myriad] discovered the precise location and sequence of two human genes, mutations of which can substantially increase the risks of breast and ovarian cancer.").

[124] *See id.* at 583–84.

[125] *See id.* at 580.

[126] *See* Diamond v. Chakrabarty, 447 U.S. 303, 309 (1980).

[127] *See* Quinn, *supra* note 110.

[128] 573 U.S. 208 (2014).

[129] *Id.* at 213.

[130] *See id.* at 212.

[131] *See id.* at 217–18 (citing Mayo Collaborative Servs. v. Prometheus Lab'ys, Inc., 566 U.S. 66, 72–73 (2012)).

[132] *Id.* at 226 (citing *Mayo*, 566 U.S. at 77).

[133] *Id.* at 216 (citing Bilski v. Kappos, 561 U.S. 593, 611–12 (2010)).

Since *Alice* was decided in 2014, the lower federal courts and the United States Patent and Trademark Office ("USPTO") have struggled to apply the *Alice* Two-Step, and the Supreme Court has not heard another § 101 case. Though the USPTO's guidance is not binding on the courts,[134] below is a diagram detailing how the *Alice* Two-Step is implemented by USPTO examiners when determining whether to issue a patent.

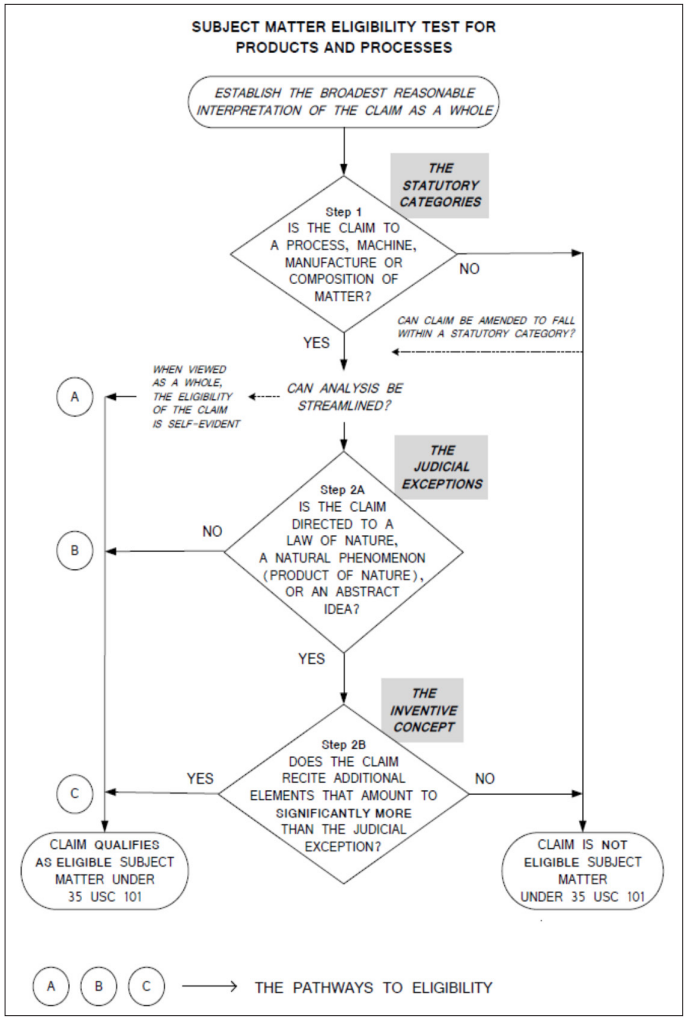

Figure 1. USPTO Subject Matter Eligibility Test for Products and Processes.[135]

Notably, Step 1 of *Alice*'s test occurs in Step 2A of the diagram (labeled "The Judicial Exceptions"), and at this step the focus is on the claim as a whole.

[134] *See* cxLoyalty, Inc. v. Maritz Holdings Inc., 986 F.3d 1367, 1375–76 n.1 (Fed. Cir. 2021) (citing *In re* Rudy, 956 F.3d 1379, 1382 (Fed. Cir. 2020)).

[135] MPEP § 2106 (9th ed. Rev. 10, June 2020).

The Manual of Patent Examining Procedure ("MPEP") elaborates that in order to determine if the claim is directed to a judicial exception, "Step 2A is a two-prong inquiry, in which examiners determine in Prong One whether a claim recites a judicial exception, and if so, then determine in Prong Two if the recited judicial exception is integrated into a practical application of that exception."[136]

At Step 2 of the *Alice* test or Step 2B of the diagram (labeled "The Inventive Concept"), a claim can be evaluated as a whole and dissected into its individual components.[137] The MPEP dictates that in order to determine if a claim recites an inventive concept that makes it significantly more than a patent to the judicial exception, "[e]xaminers should . . . first identify[ ] whether there are any additional elements (features/limitations/steps) recited in the claim beyond the judicial exception(s), and then evaluat[e] those additional elements individually *and in combination* to determine whether they contribute an inventive concept (i.e., amount to significantly more than the judicial exception(s))."[138] While the diagram and explanation by the USPTO are helpful, analyzing a patented invention with sophisticated technology according to this criteria can be quite challenging in practice.

In sum, the Burger Court came out of its foray into patentable subject matter with the opinion that anything under the sun was patent eligible,[139] but the Roberts Court—despite dealing with substantially the same statute—drastically narrowed what inventions are patent eligible.[140] Further, the Court elaborated very little on the two-step test it created in *Alice* and *Mayo*.[141] Thus, the Federal Circuit's guiding principle is to determine what is "enough"[142] to

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[136] *Id.* § 2106.04(II)(A).

[137] *See id.* § 2106.05(II).

[138] *Id.*

[139] *See* Diamond v. Chakrabarty, 447 U.S. 303, 315–16 (1980).

[140] *See* Grant E. Gibson, Berkheimer*: An Overcorrection in the Law of Patentable Subject Matter*, 28 Tex. Intell. Prop. L.J. 211, 216 (2020) ("Recently though, the Supreme Court has pivoted, and narrowed its interpretation of what is patent eligible." (footnote omitted)).

[141] *See* Alice Corp. Pty. Ltd. v. CLS Bank Int'l, 573 U.S. 208, 225–26 (2014) (stating only that the claims do "nothing significantly more" than apply an abstract idea, and that mere application is not "*enough*"); Mayo Collaborative Servs. v. Prometheus Lab'ys, Inc., 566 U.S. 66, 77 (2012). The *Mayo* Court opined:

> The question before us is whether the claims do significantly more than simply describe these natural relations. To put the matter more precisely, do the patent claims add *enough* to their statements of the correlations to allow the processes they describe to qualify as patent-eligible processes that *apply* natural laws?

Id.

[142] *Alice*, 573 U.S. at 226.

transform a law of nature, physical phenomenon, or abstract idea into a patent-eligible invention.

II. Why § 101 Is Problematic and Requires Reform

Patentable subject matter is a difficult and problematic doctrine that pleases almost nobody. Judge Raymond Chen of the Federal Circuit has said that "if Congress intervened, . . . it . . . could help clarify a lot of things."[143] And the Supreme Court has asked the Solicitor General for the third time in three years if it is time to revisit patentable subject matter.[144] While the doctrine is disliked by many and confusing to all, it is also legally flawed and bad policy. This part of the Article will discuss the doctrine's legal and policy issues.

A. Legal Issues

Patentable subject matter doctrine is legally flawed in two main ways. First, the doctrine has blended with the novelty and nonobviousness doctrines. Indeed, the Supreme Court and Federal Circuit explicitly admit this.[145] This doctrinal overlap is duplicative, conflates questions of law and questions of fact, and alters the standard that is statutorily required to analyze eligibility, novelty, and nonobviousness. Second, the case law is conflicting—including on the issue of whether novelty and nonobviousness are permissible to consider at the subject matter stage. These conflicting assertions make it challenging for the Federal Circuit or a district court to discern the appropriate legal standard.

1. Patentable Subject Matter Has Impermissibly Become an Amalgamation of Other Doctrines

Patentable subject matter has begun to blend with some of the other doctrines of patentability—namely novelty and nonobviousness—such that it is no longer its own test.[146] Judge Chen has said that "this mixing of novelty

[143] Scott Graham, *Could IP Actually Soothe U.S.-China Tensions?*, Bloomberg L. (Jan. 22, 2021, 8:17 PM), https://www.bloomberglaw.com/document/X3AR8T0K000000?jcsearch=fmf45ldjll#jcite [hereinafter Graham].

[144] *See* Scott Graham, *Supreme Court Asks SG's Views on Patent Eligibility—Again*, Bloomberg L. (May 03, 2021, 11:36 AM), https://www.bloomberglaw.com/document/X7SHFBC0000000?jcsearch=hdk45ekjje#jcite.

[145] *See* discussion *infra* Section II.A.1.

[146] *See* Jay P. Kesan & Runhua Wang, *Eligible Subject Matter at the Patent Office: An Empirical Study of the Influence of* Alice *on Patent Examiners and Patent Applicants*, 105 Minn. L. Rev. 527, 535 (2020) ("This study also explores the correlation between § 101 rejections and the other statutory rejections because the *Alice* decision implicates novelty, obviousness, written description, enablement, and claim definiteness under the Patent Act.").

questions in the patent eligibility inquiry" is "one of the big challenges with American patent eligibility law."[147] This doctrinal overlap is legally problematic because it allows a judge to decide factual questions that are meant to go to the jury, to decide a question earlier in the litigation process than it would otherwise be addressed, and to decide a question using impermissible evidence.

It is known that this overlap exists because the courts have explicitly recognized it, and § 101's inventive concept test implicitly requires it. In *Mayo*, the Supreme Court—despite not overruling *Diehr*, which said the exact opposite thirty years prior[148]—stated that "the § 101 patent-eligibility inquiry and, say, the § 102 novelty inquiry might sometimes overlap."[149] The Federal Circuit has gone a step further and recognized that novelty and nonobviousness are not "wholly divorced from some aspects of the § 101 inquiry."[150]

This recognition is not surprising because the current legal standard invites this overlap. Per the MPEP guidelines, an inventive concept is when the elements of the invention, other than those directed to a judicial exception, amount to significantly more than the judicial exception.[151] Inventive is defined, in lay terms, as "creative and original."[152] Novelty asks whether the claimed invention is new compared to the prior art, and nonobviousness asks whether the new components are enough of an advancement over the prior art to justify a patent.[153] Compared to the lay definition of inventive, novelty maps well onto "original" and nonobviousness embraces "creative."

Not only is this overlap duplicative as novelty and nonobviousness have to be considered at least twice,[154] but it is also problematic for two additional reasons. First, this overlap shifts questions of novelty—a factual issue—and nonobviousness—a legal issue which almost always contains underlying

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[147] Graham, *supra* note 143.

[148] *See* Diamond v. Diehr, 450 U.S. 175, 189 (1981). The Court in *Diehr* opined:

> It has been urged that novelty is an appropriate consideration under § 101. . . . Section 101, however, is a general statement of the type of subject matter that is eligible for patent protection "subject to the conditions and requirements of this title." Specific conditions for patentability follow and § 102 covers in detail the conditions relating to novelty.

Id. (quoting 35 U.S.C. § 101 (1976)).

[149] Mayo Collaborative Servs. v. Prometheus Lab'ys, Inc., 566 U.S. 66, 90 (2012).

[150] Realtime Data LLC v. Reduxio Sys., Inc., 831 F. App'x 492, 497 (Fed. Cir. 2020).

[151] *See* MPEP § 2106(I) (9th ed. Rev. 10, June 2020).

[152] *Inventive*, Dictionary.com, https://www.dictionary.com/browse/inventive [https://perma.cc/EAT5-V5L4].

[153] *See* Robert P. Merges & Patrick F. Duffy, Patent Law & Policy 323, 513 (7th ed. 2018).

[154] *See* Paxton M. Lewis, Note, *The Conflation of Patent Eligibility and Obviousness:* Alice*'s Substitution of Section 103*, 2017 Utah L. Rev. OnLaw 13, 14 (2017) (arguing that the second step of *Alice* is duplicative with nonobviousness).

factual issues—to the court to decide as a matter of law. Patentable subject matter doctrine thus blurs the distinction between questions of law and questions of fact and can cause judicial interference with a jury's fact-finding role.[155]

Second, the vantage point from which to analyze the doctrines also differs both temporally and substantively. Temporally, novelty and nonobviousness are "rarely issues appropriate for resolution on the pleadings"[156] whereas subject matter is often handled at the motion to dismiss stage.[157] This blending of doctrine can force courts to handle novelty or nonobviousness issues earlier in the judicial process than they otherwise would.

Substantively, the doctrines differ on whether the invention must be analyzed in the aggregate or broken down into its component parts. For nonobviousness, § 103 states that "the claimed invention as a whole" is to be analyzed.[158] Conversely, in Step Two of *Alice*, the claimed elements are analyzed "both individually and 'as an ordered combination.'"[159] *Alice*'s second step thus allows courts to analyze nonobviousness, at least to the extent it blends into patent eligibility determinations, in light of the individual components of the invention—something that the law does not permit when analyzing nonobviousness alone.

2. Patentable Subject Matter Doctrine Is Rife with Inconsistent Case Law

The Supreme Court and the Federal Circuit cannot agree on patentable subject matter doctrine. Because the Federal Circuit is usually the final say on patent jurisprudence,[160] it is beneficial if it is in unison with the Supreme Court. But currently the Supreme Court's case law is inconsistent. As a consequence, the Federal Circuit and the district courts are struggling to apply

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[155] *See* Jeffrey A. Lefstin et al., *Final Report of the Berkeley Center for Law & Technology Section 101 Workshop: Addressing Patent Eligibility Challenges*, 33 Berkeley Tech. L.J. 551, 574 (2018) ("Moreover, by intermingling nonobviousness (§ 103) and enablement or written description (§ 112) considerations into the subject matter inquiry, the *Mayo*/*Alice* decisions short-circuited the factual inquiries and structure mandated by the 1952 Act.").

[156] Realtime Data LLC v. Reduxio Sys., Inc., 831 F. App'x 492, 497 (Fed. Cir. 2020).

[157] *See* Lefstin et al., *supra* note 155, at 561 ("Courts now routinely confront § 101 invalidity motions at the very outset of, and throughout, many patent cases.").

[158] 35 U.S.C. § 103 (2018).

[159] Alice Corp. Pty. Ltd. v. CLS Bank Int'l, 573 U.S. 208, 217 (2014). In *Alice* Step Two, the Court "consider[s] the elements of each claim both individually and 'as an ordered combination' to determine whether the additional elements 'transform the nature of the claim' into a patent-eligible application." *Id.* at 217 (quoting Mayo Collaborative Servs. v. Prometheus Lab'ys, Inc., 566 U.S. 66, 78–79 (2012)).

[160] *See* Paul R. Gugliuzza, *The Federal Circuit as a Federal Court*, 54 Wm. & Mary L. Rev. 1791, 1800 (2013).

the doctrine because there is no clear way to interpret the Supreme Court's precedent.

Mayo provides one example of this inconsistency. In that case, the Supreme Court discussed how the *Diehr* process was patentable because it was an invention that

> (1) continuously monitor[ed] the temperature on the inside of the mold, (2) fe[d] the resulting numbers into a computer, which would use the Arrhenius equation to continuously recalculate the mold-opening time, and (3) configur[ed] the computer so that at the appropriate moment it would signal "a device" to open the press.[161]

The Supreme Court juxtaposed this with the *Flook* process that was not patentable because it was an invention that was "(1) measuring the current level of the variable, e.g., the temperature; (2) using an apparently novel mathematical algorithm to calculate the current alarm limits; and (3) adjusting the system to reflect the new alarm-limit values."[162]

Both of these inventions utilize only a measuring step, a computation step, and then an action step. Yet one was deemed patentable and the other was not.[163] There is widespread agreement that *Flook* and *Diehr* are inconsistent with each other,[164] but neither case has been overturned or repealed. Courts, in turn, are struggling to determine the correct interpretation of the law. While this inconsistency is not new, as *Flook* and *Diehr* were decided over forty years ago, people had assumed *Flook* was effectively overturned after *Diehr*.[165] It was not until the Supreme Court referenced *Flook* in its *Bilski* and *Mayo* opinions that people definitively knew that *Diehr* did not effectively overturn *Flook*.

Mayo is also inconsistent with *Diehr* on whether novelty is relevant in the § 101 analysis. *Diehr* states that novelty is not a relevant consideration and supports this assertion with both the structure of the Act[166] as well as the legislative history.[167] But *Mayo* states that novelty and patentable subject matter

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[161] Mayo Collaborative Servs. v. Prometheus Lab'ys, Inc., 566 U.S. 66, 80 (2012) (citing Diamond v. Diehr, 450 U.S. 175, 177–79 (1981)).

[162] *Id.* at 81 (citing Parker v. Flook, 437 U.S. 584, 585 (1977)).

[163] *Compare Flook*, 437 U.S. at 594 ("Here it is absolutely clear that respondent's application contains no claim of patentable invention."), *with Diehr*, 450 U.S. at 191 ("[R]espondents' claims recited subject matter which was eligible for patent protection under § 101.").

[164] *See* Zivojnovic, *supra* note 50, at 814 ("Even though *Diehr* did not explicitly overrule *Flook*, the two cases are difficult, if not impossible, to harmonize." (footnote omitted)).

[165] *See* Falati, *supra* note 4, at 11 ("In 1978, the Supreme Court decided *Flook*, a decision that was effectively later overruled by the Court in two subsequent decisions in *Chakrabarty* and *Diehr*.").

[166] *See Diehr*, 450 U.S. 175, 189 (1981).

[167] *See id.* at 190–91 (noting that "[t]he legislative history of the 1952 Patent Act is in accord with this reasoning" and listing how the Senate committee report and revision notes reflect this understanding).

may overlap out of necessity, and the Court did not provide any statutory basis for why this is permissible.[168] In doing so, *Mayo* did not overturn *Diehr* nor has it been read to effectively overturn *Diehr*. The cases are simply irreconcilable on this point.

An example of a disconnect between the Supreme Court and the Federal Circuit is how the two courts handle physical phenomenon cases. The Supreme Court did not apply the *Alice* Two-Step in *Myriad*—a case dealing with a physical phenomenon—even though it was sandwiched by a law of nature case, *Mayo*, and an abstract idea case, *Alice*, that were both subject to the *Alice* Two-Step.[169] Nonetheless, the Federal Circuit applied the *Alice* Two-Step in a physical phenomenon case in *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*[170]—a case dealing with noninvasive fetal testing in pregnant women using cell-free fetal DNA.[171] The Supreme Court has never corrected this decision, so it might now be implied that there is agreement with the Federal Circuit. But absent affirmative indication, it is unclear whether applying the *Alice* Two-Step in physical phenomenon cases is what the Supreme Court intended.

B. Policy Issues

Mark Twain once wrote, "[A] country without a patent office and good patent laws was just a crab, and couldn't travel any way but sideways or backwards."[172] The United States used to be the "gold standard" for patent

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[168] *See* Mayo Collaborative Servs. v. Prometheus Lab'ys, Inc., 566 U.S. 66, 90 (2012). The Court opined:

> We recognize that, in evaluating the significance of additional steps, the § 101 patent-eligibility inquiry and, say, the § 102 novelty inquiry might sometimes overlap. But that need not always be so. And to shift the patent-eligibility inquiry entirely to these later sections risks creating significantly greater legal uncertainty, while assuming that those sections can do work that they are not equipped to do.

Id.

[169] *See generally* Ass'n for Molecular Pathology v. Myriad Genetics, Inc., 569 U.S. 576 (2013). Though the test is referred to as the *Alice* Two-Step, *Alice* cited *Mayo* for the creation of this test. *See* Alice Corp. Pty. Ltd. v. CLS Bank Int'l, 573 U.S. 208, 217 (2014) (citing *Mayo*, 566 U.S. at 77–78). So, it is immaterial that *Myriad* was heard prior to the Supreme Court hearing *Alice* because the test was, according to the Supreme Court, created in *Mayo*. *See Alice*, 573 U.S. at 217.

[170] 788 F.3d 1371 (Fed. Cir. 2015); *see id.* at 1375–78.

[171] *See id.* at 1374.

[172] Mark Twain, A Connecticut Yankee in King Arthur's Court 76–77 (Bernard L. Stein ed., Univ. of Cal. Press 1979) (1889); *see* Falati, *supra* note 4, at 3.

protection and was the world leader for promoting innovation.[173] But the U.S. patent system is becoming a crab.

The purpose of the U.S. patent system is to incentivize innovation and the disclosure of new ideas.[174] But currently § 101 jurisprudence is antithetical to the purpose of our patent system because it is stalling innovation in certain fields. Not only is this jurisprudence contrary to the purpose of patent law, but it is also causing America's patent system to fall behind that of other countries.

1. Our System Is Not Incentivizing Innovation in All Fields

Currently, there is a perception that certain kinds of inventions are precluded from receiving a patent because those inventions cannot pass the patentable subject matter requirement.[175] This perception creates two issues. First, without certainty that downstream products in a field will be patentable, there is little incentive to invest in either the building blocks or the downstream products.[176] So there are inadequate incentives to undergo the costs of innovation in certain fields. Second, when a company decides to invest in innovation, the uncertainty of whether its inventions are patentable incentivizes the hoarding of information in the form of trade secrets as opposed to the sharing of information that occurs in the patent system.[177]

Both of these issues are contrary to the core of patent law policy and are evidence that the system is not functioning optimally. The cause of these issues is that patentable subject matter functions best as a low bar, but the bar has been raised and now § 101 is doing exclusionary work that is best left to other doctrines. And the effect is that patents are now being granted or invalidated inconsistently across different fields.

a. Patentable Subject Matter Is No Longer a Coarse Filter

The idea of patentable subject matter serving as a coarse filter has been turned on its head. The coarse filter idea once meant that patentable subject matter was a low threshold to achieve.[178] Thus, all inventions but the

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[173] Madigan & Mossoff, *supra* note 8, at 939 ("Compared to other countries, the United States has long had a 'gold standard' patent system. The U.S. has led the world in securing stable and effective property rights in cutting-edge innovation; most recently, in protecting biotech and computer software inventions.").

[174] *See* Kewanne Oil Co. v. Bicron Corp., 416 U.S. 470, 480 (1974); Lindhorst, *supra* note 12, at 735.

[175] *See* discussion *infra* Section II.B.1.b.

[176] *See* Emily G. Blevins, Cong. Rsch. Serv., R47267, Patents and Innovation Policy 6 (2022).

[177] *See id.* at 4.

[178] *See* Brief for the United States as Amicus Curiae Supporting Neither Party at 11, Mayo Collaborative Servs. v. Prometheus Lab'ys, Inc., 566 U.S. 66 (2012) (No. 10-1150).

bulky building blocks of science (i.e., laws of nature, physical phenomena, or abstract ideas) would pass through the filter. But now this coarse filter is being used more frequently. A lot more frequently. Since the Roberts Court's four cases on patentable subject matter from 2010 to 2014, the number of patent validity challenges on subject matter grounds has grown *twentyfold*.[179] Further, one study found that out of a sample of 104 patent eligibility cases before the Federal Circuit post-*Alice*, the court determined that only 7.7% of those patents were valid.[180] This has created a perception that certain types of inventions cannot receive patent protection, and this perception has stalled innovation in those fields.

Patent application rejections and patent invalidity rulings on subject matter grounds are more problematic for innovation than rejections and rulings based on other grounds because of the scope of the inquiry. Patentable subject matter asks whether inventions of this general kind are patent eligible; the other doctrines of patentability ask only whether a specific claim is patentable.[181] So a rejection on subject matter grounds acts as a cudgel and sends a signal that all inventions of that "general kind" are not patentable, whereas a rejection on one of the other grounds acts as a scalpel and relates only to the specific claim at hand. Because patentable subject matter has been used too frequently to invalidate or reject a patent—even though a rejection based on a different doctrine would suffice—there is now a perception that patents are unavailable in certain fields.[182]

b. Technical Fields Are Being Treated Unequally Under Patent Law

The Supreme Court has refused to categorically ban certain fields of innovation from being patentable because inventions are often unforeseeable.[183] As Judge Rader put it in his dissent in *In re Bilski*,[184] "[W]hy should some

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[179] *See* Lefstin et al., *supra* note 155, at 561 (finding that pre–*Mayo* there were approximately five § 101 invalidity determinations per year and post-*Mayo* that number had risen to approximately 100 a year); Kesan & Wang, *supra* note 146, at 535 (finding that post-*Alice* the number of § 101 rejections for business methods, bioinformatics, and software patents has increased).

[180] *See* Paul R. Gugliuzza & Mark A. Lemley, *Can a Court Change the Law by Saying Nothing?*, 71 Vand. L. Rev. 765, 767 (2018).

[181] *See* Diamond v. Diehr, 450 U.S. 175, 189 (1981).

[182] *See infra* note 198 and accompanying text.

[183] *See* Bilski v. Kappos, 561 U.S. 593, 605 (2010) ("A categorical rule denying patent protection for 'inventions in areas not contemplated by Congress . . . would frustrate the purposes of the patent law.'" (quoting Diamond v. Chakrabarty, 447 U.S. 303, 315 (1980))).

[184] 545 F.3d 943 (Fed. Cir. 2008) (en banc), *aff'd but criticized sub nom.* Bilski v. Kappos, 561 U.S. 593 (2010).

categories of invention deserve no protection?"[185] The Supreme Court retained this policy by rejecting a categorical rule about the patentability of business methods because it would "frustrate the purposes of the patent law."[186] Yet the current § 101 jurisprudence is foreclosing inventions in certain industries from the patent system.[187]

The current subject matter doctrine is preventing inventions in certain fields from being patented not because the advances in these fields are not valuable to our society, but rather because these inventions do not map well onto the subject matter requirements for patent law.[188] *Alice* has had a particularly negative effect on software, business methods, and biotechnology patents.[189] Post-*Alice*, the number of patent applications in each field *decreased*, yet even with fewer applications, the number of § 101 rejections *increased*.[190] Another study looked at the invalidation rates under § 101 of over 800 patents before the Federal Circuit and found that 65% of software or IT patents were invalidated whereas only 50% of biotechnology or life science patents were invalidated.[191] These studies exemplify just one of the discrepancies across fields.

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[185] *Id.* at 1012 (Rader, J., dissenting); *see* Dreyfuss & Evans, *supra* note 25, at 1356.

[186] *Bilski*, 561 U.S. at 605 (quoting *Chakrabarty*, 447 U.S. at 315).

[187] *See* Lefstin et al., *supra* note 155, at 589. Lefstin stated:

> Several participants who specialize in prosecuting life sciences applications noted that it is now very difficult to obtain patents in particular inventive fields, such as purified products, methods of treatment using purified molecules, purified enzymes for industrial processes, enzyme variants, and personalized medicine diagnostics—fields where advances had been patentable for decades, or even centuries.

Id.; *see also* Øyvind Dahle, *The Absurdity of Patent Ineligible Categories: The Discrepancy Between the* Ariosa *and* Cellzdirect *Decisions Highlights the Problems Created by Formalistic Adjudication of Patent Eligibility*, 17 Wake Forest J. Bus. & Intell. Prop. L. 114, 119 (2016) ("The Supreme Court's decisions have excluded medical diagnostic methods from patentability." (footnote omitted)).

[188] *See Bilski*, 561 U.S. at 605–06 (identifying that the machine-or-transformation test "would create uncertainty as to the patentability of software, advanced diagnostic medicine techniques, and inventions based on linear programming, data compression, and the manipulation of digital signals").

[189] *See* Kesan & Wang, *supra* note 146, at 533 ("In addition to software and business methods, *Alice* has negatively impacted patent eligibility in biotechnology (e.g., biocomputing and bioinformatics)." (footnote omitted)).

[190] *See id.* at 535.

[191] *See id.* at 548. The authors supported their own study with another:

> This finding is consistent with another study in which Lemley and Zyontz reviewed 808 decisions on patentable subject matter delivered by the Federal Circuit and the federal district courts. There, federal courts invalidated patents in 65.1% of the 724

That is not to say that all patents should be granted at an equal rate. But if no field is categorically banned from receiving a patent, then the subject matter rejection rates should be comparable. As explained previously, a rejection on subject matter grounds has a broader preemptive effect, so having higher subject matter rejection rates in certain fields forecloses a broader sphere of the field from patent protection than a rejection under any other doctrine.

One example of this inequality is in the field of diagnostics. In *Athena Diagnostics, Inc. v. Mayo Collaborative Services, LLC*,[192] *Mayo v. Prometheus*, and *Association for Molecular Pathology v. Myriad*, patents for diagnostic inventions were invalidated based on subject matter grounds.[193] This trio of cases has signaled to inventors that applying for a diagnostic patent is a risky business. The patent may not be granted at all. Alternatively, even if the patent is granted, it can be invalidated when one attempts to enforce it.[194] If the patent is invalidated, then the inventor disclosed his invention to the public but reaped none of the rewards of the patent. This uncertainty incentivizes inventors in the field of diagnostics to seek out other forms of protection or to abandon research in that field altogether in favor of a more patent-friendly field. For example, the Cleveland Clinic hospital system has shifted its research focus away from diagnostics because it thinks that inventions in this space will not be patentable under § 101.[195]

> software or IT cases, but only invalidated 50% of the seventy-six biotechnology or life science cases.

Id. (footnotes omitted).

[192] 915 F.3d 743 (Fed. Cir. 2019), *cert. denied*, 140 S. Ct. 855 (2020).

[193] *See id.* at 746; Mayo Collaborative Servs., LLC, v. Prometheus Lab'ys, Inc., 566 U.S. 66, 92 (2012); Ass'n for Molecular Pathology v. Myriad Genetics, Inc., 569 U.S. 576, 580 (2013).

[194] *See, e.g.*, Athena Diagnostics, Inc. v. Mayo Collaborative Servs., LLC, 915 F.3d 743 (Fed. Cir. 2019), *cert. denied*, 140 S. Ct. 855 (2020); Mayo Collaborative Servs. v. Prometheus Lab'ys, Inc., 566 U.S. 66 (2012).

[195] *See* Falati, *supra* note 4, at 42–43. Falati argued:

> This Supreme Court created uncertainty in the patent eligibility law has had real-world practical consequences, including for example, the highly regarded Cleveland Clinic and other major public and private research and development focused institutions beginning to refrain from researching and developing certain types of innovative technologies because they cannot be patented.

Id. (footnote omitted).

2. A Comparison to Foreign Countries Demonstrates America Is Falling Behind in Terms of Patenting Inventions and Securing Investment for Innovation

Another indicator that the United States' approach to patent eligibility is not good policy can be seen by comparing our patent law to that of foreign countries. The United States used to be the "gold standard" for patent protection and "has led the world in securing stable and effective property rights in cutting-edge innovation."[196] But this statement has become further and further from the truth each day. Currently, the United States is rejecting more patents than foreign countries and is ceding investment in innovative technologies to other countries.[197]

While the United States is dealing with its § 101 uncertainty, other countries are developing and, perhaps, surpassing the United States in being the world leader for patent protection.[198] A recent study tracked over 17,000 U.S. patent applications that were rejected and then abandoned on eligibility grounds and found that nearly 10% of these applications were granted by the European Patent Office, China, or both.[199] True, granting fewer patents does not necessarily mean that innovation is stalling. For example, if the patent system was only invalidating, rejecting, or preventing applications for undesirable patents, then our system would be functioning optimally. But that is not the case. Though it is difficult to determine whether the patent system is

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[196] Madigan & Mossoff, *supra* note 8, at 939.

[197] *See infra* notes 198–209 and accompanying text.

[198] *See* Madigan & Mossoff, *supra* note 8, at 941. Madigan and Mossoff wrote:

> Other jurisdictions, such as in Europe and China, are now granting patents for the same or related inventions and discoveries that are being rejected in the U.S. as ineligible for patent protection. This raises the question of whether these countries are positioning themselves to bypass the U.S. as the forerunners of innovation, especially in the research-intensive sectors of the innovation economy, such as in the life sciences, biotech, and high tech.

Id.

[199] *See id.* at 941–42. The authors pointed out:

> [Their study] presents statistics on patent-eligibility decisions in U.S. courts and at the United States Patent and Trademark Office ("PTO"), and it presents for the very first time information from a database of 17,743 recently filed patent applications in the U.S., the European Patent Office ("EPO"), and China. All of these patent applications were rejected (and then abandoned) in the U.S. on the ground that they are ineligible for patent protection under § 101, but 1,694 of them were granted by the EPO, in China, or by both.

Id. (footnote omitted).

promoting or preventing innovation,[200] there are a couple of key indicators that innovation is being stalled.

First, other countries are now receiving more funding than the United States for innovation. For example, in 2013, the United States received 77% of capital investments for software driven industries but received only 50% four years later.[201] Further, in 2017, 48% of the funding for artificial intelligence startup companies went to China, and the United States received only 38%.[202] Because funding is crucial to developing certain technologies, decreased investment is likely to result in decreased innovation.

There is also evidence to suggest that this reduction in funding is caused by the change in our patent eligibility jurisprudence. In a recent survey of 475 venture capital and private equity investors, 74% said that patent eligibility is a key reason to invest or not invest in a company's developing technology.[203] And in a different study, 33% of investors said that the patent eligibility laws caused their firms to shift their capital investment away from new software or new technology related to the biotechnology, medical device, and pharmaceutical industries.[204]

Second, anecdotally the United States is not allowing patents on some very desirable inventions. One example is the patent that the Federal Circuit invalidated on eligibility grounds in *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*[205] That patent was for a technology that utilized cffDNA to detect fetal abnormalities noninvasively[206]—a medical advancement that is unequivocally desirable. The United States invalidated this patent,[207] but both the United Kingdom[208] and Australia[209] upheld the patentability of the very same technology.

To summarize, our current patentable subject matter doctrine has caused a trickledown effect in which: (1) section 101 has been used more frequently to invalidate patents, (2) different subject matter invalidity and rejection rates have led to inequality amongst fields, (3) there is a perception that patents

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[200] *See* Lefstin et al., *supra* note 155, at 582 ("The efficacy of the patent system is often difficult to measure.").

[201] *See* Jackie Snow, *China's AI Startups Scored More Funding than America's Last Year*, MIT Tech. Rev. (Feb. 14, 2018), https://www.technologyreview.com/f/610271/chinas-ai-startups-scored-more-funding-than-americas-last-year/ [https://perma.cc/9VXX-PT4P].

[202] *See id.*

[203] *See* Falati, *supra* note 4, at 38.

[204] *See id.* at 39.

[205] *See* Ariosa Diagnostics, Inc. v. Sequenom, Inc., 788 F.3d 1371, 1373 (Fed. Cir. 2015).

[206] *See id.*

[207] *See id.*

[208] *See generally* Illumina, Inc. v. Premaitha Health PLC [2017] EWHC (Pat) 2930 (Eng.).

[209] *See generally Sequenom, Inc. v. Ariosa Diagnostics, Inc.* [2019] FCA 1011 (27 June 2019) (Austl.).

are unavailable in certain fields, (4) companies and investors fund and conduct less research in these fields that are perceived to be patent-ineligible, and (5) ultimately, there is less innovation in these fields. Though the Supreme Court warned that applying the *Alice* Two-Step too strictly could eviscerate patent law and cautioned against such an application,[210] in practice that is precisely what happened. As a result, innovation in America is being curtailed and is lagging behind that of other countries.

III. Proposed Legislative Change: The Laundry List Approach

Patentable subject matter should be its own doctrine—one that the Federal Circuit and Supreme Court apply consistently—as opposed to a Frankenstein-esque amalgamation of subject matter, novelty, and nonobviousness. Additionally, subject matter doctrine should further the patent system's goals and encourage innovation as opposed to hindering the sharing of information and leading to reduced investment in U.S. innovation. Finally, it should be a doctrine that abides by the bedrock principle of courts deciding questions of law and juries deciding questions of fact.

This Article proposes a patentable subject matter statute that eliminates the judicially created carve-outs, consists solely of inclusion categories—e.g., process, machine, manufacture, or composition of matter—and enumerates many more inclusion categories to accommodate advancing technologies. The goal of this proposal is to prevent a blending of doctrines and to ensure that subject matter, a question of law decided by the court, has minimal factual inquiries creep into it. By eliminating the judicially created carve-outs, more of the exclusionary work will be shifted to the other requirements of patentability. And contrary to what the Supreme Court has said, the other doctrines of patentability are capable of preventing undesirable patents.[211]

A. Why a Legislative Change?

In *Mayo*, the Supreme Court relied heavily on precedent in formulating its new test and recognized "the role of Congress in crafting more finely tailored rules where necessary."[212] What has emerged under the patentable subject matter doctrine is an unworkable standard, which is typically viewed as a signal for legislative intervention.[213] Additionally, the Supreme Court has

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

[211] *See* discussion *infra* Section III.C.

[212] *Mayo*, 566 U.S. at 92.

[213] *See* Lindhorst, *supra* note 12, at 761–62.

refused to further clarify the doctrine by denying certiorari for at least thirteen patent eligibility cases[214] in the last four years.[215]

Beyond the possible signal for legislative intervention from the Supreme Court, there are three reasons why a legislative change is preferred. First, the Supreme Court does not have technical expertise, and the underlying inventions of patent law can be quite complex. True, Congress does not inherently possess technical expertise either, but it does have the ability to delegate and get input from a wider range of sources. Accordingly, Congress is better equipped to handle the technical aspects of patent law and the underlying technologies.

Second, the Supreme Court and the Federal Circuit have disagreed repeatedly in developing patent law doctrine. Historically, the Federal Circuit has tried to impose bright-line rules, and the Supreme Court has thought that the Federal Circuit was being too "rigid" and adopted more flexible standards.[216] When attempting to apply these flexible standards, the Federal Circuit has lacked the guidance necessary to effectuate the Supreme Court's intended test.[217] This pattern has happened in other areas of patent law,[218] and it is bound to continue to happen for subject matter if the doctrine continues down the judicial correction route.

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[214] *See* Berkheimer v. HP Inc., 881 F.3d 1360 (Fed. Cir. 2018), *cert. denied*, 140 S. Ct. 911 (2020); Vanda Pharms. Inc. v. West-Ward Pharms. Int'l Ltd., 887 F.3d 1117 (Fed. Cir. 2018), *cert. denied*, 140 S. Ct. 911 (2020); Athena Diagnostics, Inc. v. Mayo Collaborative Servs., LLC, 915 F.3d 743 (Fed. Cir. 2019), *cert. denied*, 140 S. Ct. 855 (2020); Power Analytics Corp. v. Operation Tech., Inc., 748 F. App'x 334 (Fed. Cir. 2019), *cert. denied*, 140 S. Ct. 910 (2020); Cellspin Soft, Inc. v. Fitbit, Inc., 927 F.3d 1306 (Fed. Cir. 2019), *cert. denied*, 140 S. Ct. 907 (2020); ChargePoint, Inc. v. SemaConnect, Inc., 920 F.3d 759 (Fed. Cir. 2019), *cert. denied*, 140 S. Ct. 983 (2020); Trading Techs. Int'l, Inc. v. IBG LLC, 767 F. App'x 1006 (Fed. Cir. 2019), *cert. denied*, 140 S. Ct. 955 (2020); Trading Techs. Int'l, Inc. v. IBG LLC, 921 F.3d 1084 (Fed. Cir. 2019), *cert. denied*, 140 S. Ct. 954 (2020); SRI Int'l, Inc. v. Cisco Sys., 773 F. App'x 1090 (Fed. Cir. 2019), *cert. denied*, 140 S. Ct. 1108 (2020); Maxell, Ltd. v. Fandango Media, LLC, 779 F. App'x 745 (Fed. Cir. 2019), *cert. denied*, 140 S. Ct. 2509 (2020); Reese v. Sprint Nextel Corp., 774 F. App'x 656 (Fed. Cir. 2019), *cert. denied*, 140 S. Ct. 2507 (2020); Am. Axle & Mfg., Inc. v. Neapco Holdings LLC, 967 F.3d 1285 (Fed. Cir. 2020), *cert. denied*, 142 S. Ct. 2902 (2022); Procon Analytics, LLC v. Spireon, Inc., No. 2021-1954, 2022 WL 167463 (Fed. Cir. Jan. 19, 2022), *cert. denied*, 142 S. Ct. 2904 (2022).

[215] *See* Kesan & Wang, *supra* note 146, at 528–29 n.4.

[216] *See, e.g.*, KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398, 415, 428 (2007); Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 535 U.S. 722, 737–38 (2002).

[217] *See* discussion *supra* Section II.A.2.

[218] *See, e.g.*, KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398 (2007) (obviousness doctrine); Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 535 U.S. 722, 737–38 (2002) (prosecution history estoppel).

Finally, patentable subject matter is a messy doctrine with conflicting case law.[219] It would be nearly impossible for a judicial change to effectuate a clear doctrine without essentially starting from scratch. A legislative change—particularly one with clear-cut rules—can more effectively give patentable subject matter the "do-over" it requires.

B. The Proposal

Within patent law's current § 101, the four inclusion categories are "process, machine, manufacture, or composition of matter."[220] But parties litigate only whether an invention is directed to a judicial carve-out category, and presumably every invention that is currently patented falls within one of the inclusion categories. If an invention was not a process, machine, manufacture, or composition of matter, then it could not receive a patent under § 101.[221] So even if it was not addressed in the prosecution or litigation of a patent, every issued, valid patent must fall into one of those categories. Those inclusion categories—or perhaps fragmenting each of those categories into several narrower categories—can provide some guiding precedent and examples for courts to follow at the outset. Essentially, all of the current kinds of patented technologies will be grandfathered in for patent eligibility purposes.

To determine what other categories will be present, the types of inventions with patent filings can be analyzed by using the USPTO's Patent Classification system. For example, there will be categories to reflect pharmaceuticals, diagnostics, medical devices, tech, and software. Recently, certain senators have asked the USPTO to prepare a report on the effect of current § 101 jurisprudence on investment and innovation for quantum computing, artificial intelligence, precision medicine, diagnostic methods, and pharmaceutical treatments.[222] Because this call for information is likely a signal that Congress wants to foster development in these areas, each of those areas can also be used as inclusion categories.

To ensure that the current carve-outs do not regain relevance, the statute should also affirmatively negate the inclusion of these carve-outs. For example, the statute could state that the sole criterion for patentable subject matter is whether the invention fits into one of these categories. It could even go further and specifically state that any relation of the invention to a law of nature,

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[219] *See* discussion *supra* Section II.A.2.

[220] 35 U.S.C. § 101 (2018).

[221] *See id.*; *supra* notes 13–17 and accompanying text.

[222] *See Public Comment Sought on the Current State of Patent Eligibility Jurisprudence and Its Effect on Investment and Innovation*, USPTO (July 8, 2021), https://www.uspto.gov/about-us/news-updates/public-comment-sought-current-state-patent-eligibility-jurisprudence-and-its [https://perma.cc/YL2S-856Z].

physical phenomenon, or abstract idea is not to play a role in the patentable subject matter analysis.

If the sole criterion is whether the patented invention falls into one of the categories, the statute will need to be flexible or else it may quickly become antiquated. One way to accommodate this flexibility would be to have the statute merely list "examples" of fields where patenting is legislatively approved, and these examples can help guide courts when they contemplate new endeavors. Another route could be to include a discretionary catch-all category along the lines of "or other useful arts that satisfy the other elements of patentability." Since innovation is dynamic and unpredictable, the catch-all category may be necessary so as to not exclude an invention because it is so innovative that it was not contemplated at the time of the legislative change.

As a practical matter, the emphasis on this proposal is to shift the work away from patentable subject matter and to the other elements of patentability. The precise contours of what is and is not an inclusion category is not paramount. What is paramount is conveying that patentable subject matter is to return to its former status as a low bar, a seldom-used coarse filter, and a threshold issue that is not meant to exclude any technological field even if it may exclude individual inventions.

If most of the screening function is going to be shifted from subject matter to the other elements of patentability, this raises the question of why even keep patentable subject matter doctrine at all? One advantage is comity with international IP laws. For example, Article 27 of the TRIPS Agreement deals with patentable subject matter and states, "[P]atents shall be available for any inventions, whether products or processes, in all fields of technology, provided that they are new, involve an inventive step and are capable of industrial application."[223] Notably, "inventive step" and "capable of industrial application" are equated with nonobviousness and usefulness, respectively.[224] So this proposal would actually put U.S. patent law in greater conformity with the TRIPS Agreement by making subject matter available more broadly to any invention which is new, nonobvious, and useful.

More importantly for this Article, the inclusion categories can be used to target fields, such as diagnostics, that have recently had patents rejected or invalidated at a high rate. Enumerating these inclusion categories will create a presumption—and a boost of confidence for inventors and investors—that patent protection is available in these fields. Essentially, the inclusion categories will serve as a signal that inventions will no longer be rejected or

[223] TRIPS: Agreement on Trade-Related Aspects of Intellectual Property Rights, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, 1869 U.N.T.S. 299, 33 I.L.M. 1197, § 5 art. 27 (1994).

[224] *Id.* § 5 art. 27 n.5.

invalidated on subject matter grounds solely because they are too similar to a law of nature, physical phenomenon, or abstract idea. But, of course, inventions will still have to satisfy the other patentability criteria. Additionally, the list will act as guidance and help courts see that material that is susceptible to being considered a law of nature, for example, is nonetheless considered by Congress to be patentable subject matter.

C. Addendum: Proposed Legislation

Since this Article was first written, North Carolina Senator Thom Tillis introduced the Patent Eligibility Restoration Act of 2022,[225] and Delaware Senator Chris Coons co-sponsored the bill.[226] The bill has certain similarities to this Article's proposal. First, it retains the inclusion categories of process, machine, manufacture, or composition of matter.[227] Second, it expressly disclaims a blending of doctrines by stating that the § 101 determinations should be decided without regard to "any other consideration in section 102, 103, or 112."[228] Third, it enumerates "a specific but extensive list"[229] of categories that are relevant to the subject matter determination.[230] The main difference is that the bill enumerates a laundry list of what is excluded subject matter whereas this proposal enumerates a laundry list of inclusion categories. Despite this difference, the upshot of both proposals appears to be fostering innovation by returning § 101 to a coarse filter. For this reason, Senator Tillis's bill may be an effective way to improve § 101 jurisprudence.

D. Applying this Article's Proposal to Recent Supreme Court Cases to Demonstrate Its Practicality

One of the goals of this Article's proposal is to shift the work currently being done by the subject matter doctrine to the other doctrines of patentability. This shift requires that the other doctrines can perform that exclusionary work. In *Mayo*, the Supreme Court said:

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[225] *See* Patent Eligibility Restoration Act of 2022, S. 4734, 117th Cong. (2022).

[226] *See* Ellen McDermott, *Coons Announces He Will Co-Sponsor Tillis' Patent Eligibility Restoration Act*, IPWatchdog (Sept. 28, 2022), https://ipwatchdog.com/2022/09/28/coons-announces-he-will-co-sponsor-tillis-patent-eligibility-restoration-act/id=151766/ [https://perma.cc/T5NK-NJHQ].

[227] *See* S. 4734 § 2(a)(2).

[228] *Id.*

[229] Press Release, Senator Thom Tillis, Tillis Introduces Landmark Legislation to Restore American Innovation (Aug. 3, 2022), https://www.tillis.senate.gov/2022/8/tillis-introduces-landmark-legislation-to-restore-american-innovation [https://perma.cc/9TWU-VL4Q].

[230] *See* S. 4734 § 2(a)(2).

> We recognize that, in evaluating the significance of additional steps, the § 101 patent-eligibility inquiry and, say, the § 102 novelty inquiry might sometimes overlap. But that need not always be so. And to shift the patent-eligibility inquiry entirely to these later sections risks creating significantly greater legal uncertainty, *while assuming that those sections can do work that they are not equipped to do*.[231]

But the Supreme Court is wrong. The other doctrines are adequately equipped to prevent undesirable patents. To prove this theory, this section will analyze recent Supreme Court decisions and demonstrate how the same result could have been reached through rulings based on other doctrines of patentability besides § 101.

In reaching the same result as the Court did, the emphasis is not on whether the Court made the correct decision—if such a thing could even be proven.[232] The purpose of this exercise is to show that patent law can be effectuated in the same way without relying on § 101 as heavily as the Court currently does. This overuse is significant because § 101 acts as a coarse filter; when decisions are rendered on a § 101 basis, there is a larger preemptive effect than for rejections based on the other doctrines of patentability.[233] Thus, invalidating a patent under the novelty, nonobviousness, written description, or enablement doctrines means that the specific claim was not patentable, but rejecting a patent on subject matter grounds means that inventions of this general kind are not eligible for patent protection.

Professor Michael Risch previously conducted this exercise in 2008 and discussed how the pre-2008 patentable subject matter case law could have been decided on different grounds.[234] To avoid being duplicative, the current analysis will focus on the post-2008 Supreme Court cases—*Bilski*, *Mayo*, *Myriad*, and *Alice*.

In *Bilski*, the patent dealt with the business method of hedging.[235] *Bilski* is a rare case because though the patent had been pending for eleven years, the USPTO had never examined the patent for any element of patentability except for subject matter.[236] Because § 101 is a threshold inquiry, the USPTO, the parties litigating the issue, and each of the courts never even reached the

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[231] Mayo Collaborative Servs. v. Prometheus Lab'ys, Inc., 566 U.S. 66, 90 (2012) (emphasis added).

[232] *See* Brown v. Allen, 344 U.S. 443, 540 (1953) (Jackson, J., concurring in the result) ("We are not final because we are infallible, but we are infallible only because we are final.").

[233] *See generally* discussion *supra* Part I.

[234] *See generally* Michael Risch, *Everything Is Patentable*, 75 Tenn. L. Rev. 591 (2008).

[235] *See* Bilski v. Kappos, 561 U.S. 593, 599–602 (2010).

[236] *See In re* Bilski, 545 F.3d 943, 997 (Fed. Cir. 2008) (en banc) (Newman, J., dissenting) ("Bilski's application, now pending for eleven years, has yet to be examined for patentability."), *aff'd but criticized sub nom.* Bilski v. Kappos, 561 U.S. 593 (2010).

other doctrines nor presented arguments on these other doctrines.[237] Despite this dearth of argumentation on the other aspects of patentability, both Judge Newman's dissent at the Federal Circuit and Justice Stevens's concurrence at the Supreme Court mentioned § 112 for the proposition that the claim language was too broad to be supported by the invention itself.[238] Both Newman's dissent and Stevens's concurrence seem to suggest that the majority opinions' reasonings were wrongly conflating preemption with claim breadth. So *Bilski* most likely could have been decided as a § 112 case because the invention did not support the breadth of the patent's claims and thus the patent still would have been denied.

Mayo, a case about using thiopurines to treat autoimmune disease, was more straightforward than *Bilski* because the government argued in an amicus brief that the invention met the patentable subject matter bar, but that the patent is likely invalid under novelty or nonobviousness.[239] The government argued this point because the only element that was distinct from the prior art was the last step of the process, the doctor's mental inference.[240] Because of the similarity between the prior art and the invention, either novelty or nonobviousness could have been used to decide *Mayo*. It is also worth noting that the Supreme Court's only reasons for rejecting the government's position, besides their misguided belief that the other sections are not capable of performing this function, were because it was inconsistent with prior doctrine and because the Court did not wish to risk "creating significantly greater legal uncertainty."[241] A legislative change would nullify the first concern because the prior doctrine would no longer be relevant. As to the second concern,

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[237] *See id.* at 976 ("For example, we do not know whether the Bilski process would be found patentable under the statutory criteria, for they were never applied.").

[238] *See id.* at 996 ("If a claim is unduly broad, or if it fails to include sufficient specificity, the appropriate ground of rejection is Section 112, for claims must 'particularly point out and distinctly claim[ ]' the invention." (quoting *In re* Prater, 415 F.2d 1393, 1399 (C.C.P.A. 1969))); *Bilski*, 561 U.S. at 620 (Stevens, J., concurring). Justice Stevens reasoned in his concurrence in *Bilski*:

> It is true, as the Court observes, that petitioners' application is phrased broadly. But claim specification is covered by § 112, not § 101; and if a series of steps constituted an unpatentable idea merely because it was described without sufficient specificity, the Court could be calling into question some of our own prior decisions.

Id. (citations omitted).

[239] *See* Brief for the United States as Amicus Curiae Supporting Neither Party at 26–33, Mayo Collaborative Servs. v. Prometheus Lab'ys, Inc., 566 U.S. 66 (2012) (No. 10-1150).

[240] *See id.* at 27.

[241] *Mayo*, 566 U.S. at 89–91.

the Supreme Court has it backwards—the prior inconsistent case law has created legal uncertainty.[242]

Myriad, a case about the patentability of isolated DNA and cDNA,[243] can also be resolved based on novelty and nonobviousness grounds. First, the cDNA was deemed to be patentable, so a lower subject matter bar would not change that result.[244] The isolated DNA segments, however, were deemed not patentable because the DNA segment was a product of nature and isolating it did not make it patent eligible.[245] Both of these arguments are similar to the arguments that would be made for novelty and nonobviousness, respectively. The isolated DNA segments have occurred before and are anticipated. And the act of isolating the DNA is obvious because it is not distinct enough from the prior art. Thus, *Myriad* also could have been decided based on novelty or nonobviousness grounds.

Last, *Alice* was a case about a computer-implemented scheme for mitigating settlement risk.[246] The patent was ruled ineligible on subject matter grounds because it did nothing more than "instruct the practitioner to implement the abstract idea of intermediated settlement on a generic computer."[247] At the Federal Circuit, then Judge Moore's dissenting opinion specifically argued, "Section 102's novelty or § 103's nonobviousness requirements are the means to challenge a system claim that does no more than take a familiar, well known concept and put it on a computer."[248] Thus, these doctrines could also have been used to rule this patent invalid.

Conclusion

Patent law's current § 101 jurisprudence is broken. The Federal Circuit and district courts cannot effectively apply it, its case law is inconsistent, and, most importantly, it is harming innovation. By harming innovation, § 101 is acting contrary to the goals of patent law. Accordingly, change is needed. Congress is best situated to right the doctrine because of the Supreme Court's reluctance to touch upon the topic, the innate difficulty of correcting the doctrine judicially, and the need for complex technical knowledge.

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[242] *See* discussion *infra* Section II.A.

[243] *See* Ass'n for Molecular Pathology v. Myriad Genetics, Inc., 569 U.S. 576, 580 (2013).

[244] *See id.* at 580.

[245] *See id.* ("[W]e hold that a naturally occurring DNA segment is a product of nature and not patent eligible merely because it has been isolated . . . .").

[246] *See* Alice Corp. Pty. Ltd. v. CLS Bank Int'l, 573 U.S. 208, 212 (2014).

[247] *Id.* at 225.

[248] CLS Bank Int'l v. Alice Corp. Pty. Ltd., 717 F.3d 1269, 1320 (Fed. Cir. 2013) (en banc) (Moore, J., dissenting in part).

This Article proposes a legislative change to patentable subject matter that turns the inquiry into solely whether the invention fits within one of the inclusion categories, with no weight to be given to the current carve-outs. In doing so, more of the exclusionary work will be shifted to the other doctrines of patentability. This shift is preferred because of the smaller preemptive effect that a rejection under one of these doctrines has compared to the preemptive effect of a subject matter rejection. Thus, even if the rejection rates remain the same, fewer industries will think they are foreclosed from the patent system while the same "bad inventions" that patent policy would aim to exclude can still be rejected.

I Bought It for the Packaging: Limiting Inherent Distinctiveness for Multi-Color Packaging Trademarks in Fashion and Cosmetics After *In re Forney Industries*

Grace Guarnieri*

Introduction

Millennial and Gen Z-focused brands like social media famous cosmetics company Glossier know that customers keep and reuse product packaging. Therefore, these companies prioritize a product's packaging as much as they do a product's design.[1] Glossier sells skin care-focused makeup in Instagram-worthy packaging sent directly to the consumer in a brown postal box.[2] The interior of the box is "millennial pink,"[3] and the color pink as applied to the box is trademarked.[4] In it, the customer will find their blush and skin

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* J.D., May 2023, The George Washington University Law School, B.A., New York University Gallatin School of Individualized Study. This Note is dedicated to Scott Leonard, for his support and encouragement. I also want to thank Professor Robert Brauneis and Professor Charles Pollack for their help in writing this Note.

[1] Other examples include reusable tote bags given free with purchase at high-end athletic clothing store Lululemon. Consumers reuse and even resell these bags. *See, e.g.*, Lululemon Reusable Bags Available on Poshmark, https://poshmark.com/search?query=lululemon%20reusable%20bag [https://perma.cc/5ZEP-9AKH] (follow hyperlink, search "Listings" for "lululemon reusable bags"); Michael Barbaro, *Never Mind What's in Them, Bags Are the Fashion*, N.Y. Times (Dec. 16, 2007), https://www.nytimes.com/2007/12/16/business/16bags.html [https://perma.cc/T36H-R5VN].

[2] *See* Glossier, https://www.glossier.com/ [https://perma.cc/9L48-VLF6].

[3] *See Glossier Now Has a Trademark Registration for Its Millennial Pink-Lined Product Packaging*, Fashion L. (Dec. 16, 2020), https://www.thefashionlaw.com/glossier-now-has-a-trademark-registration-for-its-millennial-pink-lined-product-packaging/ [https://perma.cc/U27B-K2FQ].

[4] *See* The mark consists of the color pink as applied to the inner surface of portions of boxes that contrast with the color of the rest of the boxes, which form packaging for the goods, Registration No. 6,219,366; *see also Pointing to Consumer Recognition and Louboutin's Rights, Glossier Pushes for Pink Trademark*, Fashion L. (Mar. 3, 2020), https://www.thefashionlaw.com/pointing-to-consumer-recognition-and-louboutins-rights-glossier-pushes-for-pink-trademark/ [https://perma.cc/MHF8-FRRW].

tint encased in a pink bubble wrap pouch with a red zipper.[5] The pink trade dress of the bubble wrap pouch packaging is also trademarked.[6] Glossier's customers now have makeup bags that they can keep and reuse. They also have a pretty package that they can share with their social media community on YouTube, Instagram, or TikTok—platforms where users often unbox their latest online purchases.[7] As these platforms increasingly drive sales and brand recognition,[8] trademark protections for something as small as a box can be extremely valuable.

The United States Court of Appeals for the Federal Circuit's ("Federal Circuit") 2020 decision *In re Forney Industries, Inc.*[9] held that multi-color trademarks for product packaging can be inherently distinctive.[10] After *Forney*, companies like Glossier can register product packaging trade dress without showing that consumers recognize a color scheme as belonging to their brand.[11] Glossier could seek to register a box with its famous millennial pink color by combining it with other trending colors to form a stripe or gradient composition.[12] Such color combinations may be enough for a trademark examining attorney to place the mark on the United States Patent and Trademark Office's ("USPTO") Principal Register and for the configuration of an otherwise ordinary box to gain near-permanent trademark protections.[13]

Forney could disadvantage new entrants in the fashion and cosmetics industries where color often serves an aesthetically functional or ornamental

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[5] *See, e.g.*, Sophie Violeta, *2022 GLOSSIER UNBOXING HAUL!!*, YouTube (Jul. 29, 2022), https://www.youtube.com/watch?v=1sqm2QKnHws [https://perma.cc/ZC3F-DYPT].

[6] *See* The mark consists of the claimed color pink as applied to bags featuring lining of translucent circular air bubbles and a zipper closure, Registration No. 6,133,237.

[7] *See, e.g.*, Shannon LeRoy, *HUGE GLOSSIER HAUL AND UNBOXING SPRING 2021 *discount code**, YouTube (Apr. 21, 2021), https://www.youtube.com/watch?v=kEE_wFFx8SQ [https://perma.cc/9RSV-HNPU]; Rachel A. Lankford (@rachel.lankford), Instagram, https://www.instagram.com/rachel.lankford/?hl=en [https://perma.cc/8RAJ-HWTF] (a post created by this user on February 27, 2022, shows a person displaying and opening colorful boxes from brands including Glossier, Amika, Holifrog, and Parade).

[8] *See* Irakli Abashidze, *Key Issues of Elaborating Branding Strategies by Using Social Media Marketing Platforms*, 27 Eur. J. Bus. & Mgmt. Rsch. 130, 130 (2022).

[9] 955 F.3d 940 (Fed. Cir. 2020).

[10] *See id.* at 941. The words "trademark" and "mark" will be used interchangeably throughout this Note and have the same meaning. A mark is considered "inherently distinctive" if it is automatically recognizable to a consumer as a trademark. *See, e.g.*, Two Pesos, Inc. v. Taco Cabana, Inc., 505 U.S. 763, 768 (1992).

[11] *See generally In re Forney*, 955 F.3d at 940.

[12] *See id.* at 941.

[13] *See id.*; *see also* Note, *The Devil Wears Trademark: How the Fashion Industry Has Expanded Trademark Doctrine to Its Detriment*, 127 Harv. L. Rev. 995, 996, 1001, 1004 (Jan. 17, 2014).

purpose beyond source identification.[14] The utility of color in fashion and cosmetics goes beyond product design and extends to packaging because packaging can be an integral part of consumer preference.[15] In the age of social-visual marketing, consumer demand for sustainable, reusable packaging is on the rise, and aesthetic elements such as colors can be a driving force in a consumer's decision to buy.[16]

This Note argues that the Federal Circuit should adopt a bright-line rule limiting findings of inherent distinctiveness to marks that contain more than three colors for product packaging trade dress in the fashion and cosmetics industries. This rule avoids granting undue trademark protection to entities seeking trade dress registration under the Federal Circuit's *Forney* decision. Part I discusses cases from the Supreme Court of the United States and the Federal Circuit that establish protections for color and trade dress. Part I also contextualizes the modern consumer perception of product packaging in fashion and cosmetics and explains how that perception has shifted with changes in e-commerce and social media. Part II analyzes how the gap in trademark jurisprudence between product packaging and product design poses issues in the fashion and cosmetics industries and calls for clarification from the Federal Circuit. Part III explains the details of the proposed bright-line rule and argues that it will (1) preserve competition in these industries, (2) avoid inconsistent, subjective decisions about inherent distinctiveness, and (3) better reflect how consumers currently perceive product packaging.

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[14] *See Forever 21 Slaps Gucci with Strongly-Worded Trademark Lawsuit*, Fashion L. (June 29, 2017), https://www.thefashionlaw.com/forever-21-slaps-gucci-with-strongly-worded-trademark-lawsuit/ [https://perma.cc/7K32-C23R] (highlighting a dispute over stripes as an element of fashion items and whether those stripes are a trademark or just ornamentation).

[15] *See* discussion of Wal-Mart Stores, Inc. v. Samara Bros., Inc., 529 U.S. 205 (2000), *infra* Section I.E.1.

[16] *See* Kantar, BrandZ Top 100 Most Valuable Global Brands 2020, at 23–24, 94, https://www.kantar.com/campaigns/brandz-downloads/brandz-top-100-most-valuable-global-brands-2020 [https://perma.cc/9KTU-ZSY3] (follow hyperlink, then click "Download the Report" to access the online PDF file) [hereinafter BrandZ Top 100 Most Valuable Global Brands 2020]; Kantar, BrandZ Most Valuable Global Brands 2021, at 57, https://www.kantar.com/campaigns/brandz-downloads/kantar-brandz-most-valuable-global-brands-2021 [https://perma.cc/VWZ6-DK8H] (follow hyperlink, then click "Download the Report" to access the online PDF file) [hereinafter BrandZ Most Valuable Global Brands 2021] (expert insights offering that personal care companies have implemented sustainable innovations, including P&G and Unilever which have made refillable toiletries more widely available).

I. The Statutory Roots of Trademark Law and Its Branches of Judge-Made Rules

A. The Lanham Act Gives No Express Protection to Color Marks

In 1946, Congress enacted the Lanham Act, the federal statute governing trademark law, with the purposes of promoting a fair, competitive commercial environment and "secur[ing] to the business community the advantages of reputation and good will."[17] It effectuates these purposes by creating a national trademark registry to protect words, symbols, and devices that identify the source of goods in commerce.[18] The USPTO maintains a Principal Register and a Supplemental Register.[19] The Principal Register affords mark owners all protections available under the Lanham Act.[20] Unlike marks on the Principal Register, Supplemental Register marks do not reap certain benefits of the Lanham Act, including constructive notice of the mark's use and prima facie evidence of the mark's validity.[21] However, marks on the Supplemental Register may be eligible for the Principal Register if the holder can show continuous use during a five-year period.[22]

Section 45 of the Lanham Act defines "trademark" to include "any word, name, symbol, or device, or combination thereof" that distinguishes the source of goods in commerce, but it does not expressly protect color.[23] When the USPTO examines a trademark application, the trademark examining attorney determines if a mark is distinctive and therefore eligible for registration.[24] "Inherent distinctiveness" and "acquired distinctiveness" can serve as grounds for approval of the mark, while a finding of "descriptiveness" can

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[17] H. Peter Nesvold & Lisa M. Pollard, *Foreword – Half a Century of Federal Trademark Protection: The Lanham Act Turns Fifty*, 7 Fordham Intell. Prop. Media & Ent. L.J. 49, 49–50, 50 n.3 (1996) (quoting S. Rep. No. 1333, 7th Cong. 2d Sess. 4 (1946)); *see* Lanham Act § 45, 15 U.S.C. § 1127 (2018).

[18] *See* Nesvold & Pollard, *supra* note 17, at 49–50, 50 n.3.

[19] *See* Lanham Act § 1, 15 U.S.C. § 1051 (2018); Lanham Act § 23, 15 U.S.C. § 1091 (2018).

[20] *See* TMEP § 801.02(a) (July 2022) (protections include exclusive use of the mark, constructive notice to other companies of the owner's mark, legal presumption of the owner's right to use the mark, and the ability to bring a legal action).

[21] *See id.*

[22] *See* Lanham Act § 2(f), 15 U.S.C. § 1052(f) (2018); TMEP § 1212 (July 2022) (a company can show acquired distinctiveness under Lanham Act § 2(f) through establishing that it has made "substantially exclusive and continuous use of the mark in commerce" for five years).

[23] Lanham Act § 45, 15 U.S.C. § 1127 (2018).

[24] *See* discussion of trademark registration process *infra* Section I.C.

serve as grounds for rejection of the applicant's mark.[25] Inherent distinctiveness, acquired distinctiveness, and descriptiveness determinations result from the trademark examiner's analysis of the proposed mark using factors from case law.[26]

1. Inherent Distinctiveness

A trademark is "inherently distinctive" when it innately identifies the source of goods and is automatically recognized by consumers as a brand signal.[27] Inherently distinctive marks can be immediately placed on the Principal Register because "they are irrefutably presumed to have achieved customer recognition as a symbol of origin immediately upon first use as a mark."[28] The USPTO and courts determine if a trademark is inherently distinctive by utilizing the scale devised in *Abercrombie & Fitch Co. v. Hunting World*,[29] using the factors from *Seabrook Foods Inc. v. Bar-Well Foods Ltd.*,[30] or applying a combination of both.[31] The Federal Circuit and the USPTO use the *Abercrombie* scale to determine the distinctiveness of word marks and the *Seabrook* factors to determine the distinctiveness of symbols including trade dress.[32]

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[25] *See* discussion of inherent distinctiveness and acquired distinctiveness *infra* Section I.A.1. and Section I.A.2.

[26] *See* discussion of *Abercrombie* and *Seabrook* factors *infra* Section I.A.1.

[27] *See* Two Pesos, Inc. v. Taco Cabana, Inc., 505 U.S. 763, 769 (1992) ("Marks which are merely descriptive of a product are not inherently distinctive. When used to describe a product, they do not inherently identify a particular source, and hence cannot be protected."). *Compare In re* Forney Indus., Inc., 955 F.3d 940, 945 (Fed. Cir. 2020) (holding that "color marks can be inherently distinctive when used on product packaging, depending upon the character of the color design"), *with* Forney Indus., Inc. v. Daco of Mo., Inc., 835 F.3d 1238, 1248 (10th Cir. 2016) ("[W]e hold that the use of color in product packaging can be inherently distinctive (so that it is unnecessary to show secondary meaning) only if specific colors are used in combination with a well-defined shape, pattern, or other distinctive design.").

[28] J. Thomas McCarthy, McCarthy on Trademarks and Unfair Competition § 16:3 (5th ed. Sept. 2021 update); *see* Restatement (Third) of Unfair Competition § 13 (Am. L. Inst. 1995).

[29] 537 F.2d 4, 4 (2d Cir. 1976); *see* discussion of *Abercrombie* scale *infra* Section I.C.

[30] 568 F.2d 1342, 1344 (C.C.P.A. 1977); *see* discussion *infra* Section I.C. for list of factors.

[31] *See Two Pesos*, 505 U.S. at 773 (finding that the United States Court of Appeals for the Fifth Circuit was correct to apply the *Abercrombie* categories to determine if trade dress was inherently distinctive); TMEP § 1202.19(e)(i)(A)–(B) (July 2022) (citing *Seabrook* for considerations when determining inherent distinctiveness of a mark); *In re Forney*, 955 F.3d at 947 (directing lower court to apply *Seabrook* factors on remand).

[32] *See, e.g.*, *In re* NC Lottery, 866 F.3d 1363, 1366 (Fed. Cir. 2017) (citing *Abercrombie* for mark categories); *In re* Forney Indus., Inc., 955 F.3d 940, 945 (Fed. Cir. 2020) (remanding to consider whether a trade dress was inherently distinctive under *Seabrook* factors).

2. Descriptiveness and Acquired Distinctiveness

In contrast to "inherently distinctive" marks which are automatically recognizable as a brand signal, trademarks are merely "descriptive" if they "convey[] information concerning a feature, quality, or characteristic of the goods or services for which registration is sought."[33] For example, the Federal Circuit held the mark "Rice Thins" to be highly descriptive of rice cake snacks because "thin" indicates a characteristic or feature of the food.[34] Some descriptive marks may still be registered with the USPTO if the mark owner demonstrates that their mark has "acquired distinctiveness" or "secondary meaning" to consumers.[35] Recently, footwear company Timberland argued that aspects of its boot design had acquired distinctiveness and deserved trademark protections when it appealed a decision of the Trademark Trial and Appeal Board ("TTAB") to the United States District Court for the Eastern District of Virginia.[36] The court affirmed the finding of the TTAB that the boot design claims had not acquired distinctiveness because claimed aspects of the boot including an hourglass-shaped panel on the heel, a "bulbous toe box," a "tube-shaped ankle collar," and a "two-toned outsole" did not indicate to the average shoe buyer that Timberland was the source of the boot.[37] Examining attorneys analyze a mark's distinctiveness with respect to the industry and class of goods specified in the application.[38] In the Timberland case, the trademark application was for "footwear, namely, lace-up boots."[39]

B. Trade Dress

Although consumers traditionally think of words or logos when they think of trademarks, the Lanham Act and judicial decisions also protect "trade dress."[40] Trade dress has been defined as a product's overall appearance, which

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[33] Real Foods Pty Ltd. v. Frito-Lay N. Am., Inc., 906 F.3d 965, 972 (Fed. Cir. 2018) (quoting *In re* N.C. Lottery, 866 F.3d at 1367).

[34] *See Real Foods Pty Ltd.*, 906 F.3d at 975.

[35] *See* TMEP § 1212 (July 2022). "Acquired distinctiveness" and "secondary meaning" are the same in trademark law and will be used interchangeably in this Note.

[36] *See* John L. Welch, *E.D. Va. Affirms TTAB: Timberland Boot Design is Functional and Lacks Acquired Distinctiveness*, The TTABlog (Dec. 13, 2022), http://thettablog.blogspot.com/2022/12/ed-va-affirms-ttab-timberland-boot.html [https://perma.cc/5F3M-9E9P].

[37] *Id.*

[38] *See* TMEP § 1401 (July 2022). For example, registration of the color yellow for perfume bottles would likely be assessed within the class for toiletries and cosmetics and not in the context of all industries.

[39] Welch, *supra* note 36.

[40] *See* Two Pesos, Inc. v. Taco Cabana, Inc., 505 U.S. 763, 786 (1992); *see also* TMEP § 1202.02 (July 2022).

"may include features such as size, shape, color or color combinations, texture, graphics, or even particular sales techniques."[41] Trade dress is considered a "symbol" or "device" under section 45 of the Lanham Act.[42]

C. Trademark Registration at the USPTO

Because trademarks are granted based on their distinctiveness, the landmark case *Abercrombie & Fitch Co. v. Hunting World, Inc.* devised a scale to assess distinctiveness of marks and whether marks like "safari" as applied to certain Abercrombie & Fitch brand clothing items should be afforded trademark protections.[43] Using the scale devised in *Abercrombie*, the USPTO assesses the strength of a proposed mark by categorizing it as (1) generic; (2) descriptive; (3) suggestive; (4) arbitrary; or (5) fanciful.[44] In addition to words, this scale has been used to assess whether protections should be afforded to companies seeking to register colors, which may symbolize a brand under section 45 of the Lanham Act.[45] These categories aid USPTO examining attorneys in determining whether a proposed mark should be rejected or placed on the Supplemental or Principal Registers.[46]

Those seeking registration of a "generic" mark, such as the mark "sponge" for a cleaning instrument, will always be denied registration as generic marks never gain secondary meaning.[47] For a descriptive mark—for example, the mark "good food" for snacks—an applicant must demonstrate that their mark has acquired distinctiveness to be considered for placement on the Principal Register.[48] Otherwise, the mark can be placed on the Supplemental Register.[49] The final three categories from *Abercrombie*—(3) suggestive; (4) arbitrary; and (5) fanciful marks—are inherently distinctive, and the USPTO may place such marks on the Principal Register without requiring the applicant to prove that their mark has secondary meaning.[50]

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[41] *Two Pesos*, 505 U.S. at 765 n.1 (quoting John H. Harland Co. v. Clarke Checks, Inc., 711 F.2d 966, 980 (11th Cir. 1983)).

[42] *See* TMEP § 1202.02 (July 2022).

[43] *See* Abercrombie & Fitch Co. v. Hunting World, Inc., 537 F.2d 4, 11 (2d Cir. 1976) (concluding that "safari" had become generic for only certain clothing items and registrations).

[44] *See* TMEP § 1209.01 (July 2022); *Two Pesos*, 505 U.S. at 768 (citing *Abercrombie & Fitch*, 537 F.2d at 9).

[45] *See* discussion of *Qualitex infra* Section I.E.

[46] *See* TMEP § 1209 (July 2022).

[47] *See id.* § 1209.01(c).

[48] *See id.* § 1212.

[49] *See id.* § 801.02(a)–(b).

[50] *See id.* § 1209.01.

The Supreme Court has not provided an inherent distinctiveness test, and circuits have applied the *Abercrombie* factors, the *Seabrook* factors, or a combination of the two when determining if trade dress indicates the origin of the goods.[51] The Federal Circuit applies the factors from *Seabrook* for nonword marks like symbols or packaging.[52] The *Seabrook* factors are (1) commonness of shape or design; (2) uniqueness in a particular industry; (3) typicality of the ornamentation to the class of goods; and (4) capability of the proposed mark to create a commercial impression.[53] The Federal Circuit will find that a proposed mark is not inherently distinctive if it satisfies any of the first three elements of the test.[54] Thus, if a company seeks to register a red and gold lipstick box, an examiner may reject the application under the third factor if red and gold are typical ornamentation for cosmetics boxes.[55]

Recent scholarship has suggested that formal court-created tests are different from the practical approach taken by trademark examiners at the USPTO. These scholars argue that trademark examiners engage in a "step zero" to categorize marks as product design, packaging, or sometimes color alone *before* making distinctiveness determinations.[56]

D. Reasoning of Circuit Courts for Single Color Mark Decisions Before *Qualitex*

Before 1985, courts almost uniformly rejected trademark protections for colors.[57] In 1985, the Federal Circuit allowed trademark protections for

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[51] *See* McCarthy, *supra* note 28, at § 8:13 (writing that the Second, Fourth, Fifth, Eighth, and Tenth Circuits have run into issues when applying *Abercrombie* to packaging trade dress); discussion of *Abercrombie* factors, *supra* Section I.C.

[52] *See* Seabrook Foods, Inc. v. Bar-Well Foods Ltd., 568 F.2d 1342, 1344 (C.C.P.A. 1977); *In re* Forney Indus., 955 F.3d 940, 948 (Fed. Cir. 2020) (instructing the TTAB to consider *Seabrook* factors on remand); *see also In re* Chippendales USA, Inc., 622 F.3d 1346, 1349 (Fed. Cir. 2010) (applying *Seabrook* factors to design incorporating wrist cuff and detached collar uniform for exotic dancers and concluding that the mark was "a mere refinement of existing trade dress within the adult entertainment field").

[53] *See Seabrook*, 568 F.2d at 1344.

[54] *See Chippendales*, 622 F.3d 1346 at 1351.

[55] *See id.*

[56] *See* Mark A. Lemley & Mark P. McKenna, *Trademark Spaces and Trademark Law's Secret Step Zero*, 75 Stan. L. Rev. 1, 35 (Feb. 2, 2023) (arguing that the USPTO's dispositive "step zero" should be formally recognized by the courts and should be backed by evidence).

[57] *See* Richard J. Berman, Note, *Color Me Bad: A New Solution to the Debate over Color Trademark Registration*, 63 Geo. Wash. L. Rev. 111, 111, 116–18 (1994) (for discussion of the "mere color rule" that courts used to reject color marks based on justifications of color depletion, shade confusion, and functionality).

color in *In re Owens-Corning Fiberglas Corp.*,[58] which held that pink home insulation was capable of trademark protections because the color was non-functional to the insulation's use.[59] The Federal Circuit reasoned that prior jurisprudence had liberally construed "secondary meaning" under the Lanham Act to afford trademark protections to non-traditional marks, including colors, that consumers recognized as the source of goods.[60]

But in 1990, in line with the pre-1985 color mark jurisprudence, the United States Court of Appeals for the Seventh Circuit ("Seventh Circuit") split from the Federal Circuit on the color issue when it held that color was per se not protectable as a trademark in *NutraSweet Co. v. Stadt Corp.*[61] NutraSweet, the makers of "Equal" sugar substitute, brought a trade dress infringement claim against Stadt for using the color blue for packets of "Sweet One" artificial sweetener.[62] NutraSweet argued for application of the *Owens-Corning Fiberglas* rule.[63] Because the "Equal" and "Sweet One" packets donned different shades of blue, the court believed that ruling in NutraSweet's favor would lead to hairsplitting litigation over shade differentiation and shade confusion.[64] The *NutraSweet* court worried that requiring courts to ascertain the competitive need for colors in certain markets would lead to anticompetitive effects and found there was not a workable method to gauge the need for colors by future competitors.[65]

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[58] 774 F.2d 1116 (Fed. Cir. 1985).

[59] *See id.* at 1122.

[60] *See id.* at 1119–20.

[61] 917 F.2d 1024, 1028 (7th Cir. 1990) (ruling that a color can per se never be a trademark), *abrogated by* Qualitex Co. v. Jacobson Prods. Co., 514 U.S. 159 (1995). *NutraSweet* was an infringement suit that originated in a federal district court. *See id.* at 1028. It was not appealed to the Federal Circuit because it did not concern the registration of the color mark and did not originate at the USPTO. *See id.*

[62] *See id.* at 1025–26.

[63] *See id.* at 1027.

[64] *See id.* (also finding that upholding the longstanding per se rule against color marks would lead to greater consistency of the law). The shade confusion argument theorized that mark holders would frequently sue one another over the ability to monopolize a certain shade of a color. *See id.* For example, in *NutraSweet* the packets of sweetener were technically two different shades of blue. *See id.* The court was afraid that it would have no ability to decide how similar the shades of blue would have to be to find that the colors would be confusing to artificial sweetener consumers. *See id.*

[65] *See id.* at 1028.

E. *Qualitex* and Its Secondary Meaning Requirement

Five years later, the Supreme Court held that a single color can act as a symbol to identify a product's source.[66] In its 1995 decision *Qualitex Co. v. Jacobson Products Co.*,[67] the Supreme Court invalidated circuit decisions that applied a per se rule against color trademarks and resolved the split between the Federal Circuit and the Seventh Circuit.[68] Addressing the question of whether the gold-green color of Qualitex's dry cleaning pad merited trademark protections, the Court found that the Lanham Act permits a company to trademark a color when the color serves a source-identifying purpose.[69] The Supreme Court likened colors to words, finding that trademark law can protect color much like it protects "descriptive" words that have acquired secondary meaning.[70] The Court rejected the Seventh Circuit's shade confusion concern in *NutraSweet*, finding that courts can differentiate between colors the same way that courts adjudicate disputes between word marks.[71] For example, Justice Breyer noted that courts have decided cases of similar word marks like "Huggies" and "Dougies" for diapers.[72] Hypothetically, if Facebook were to register its blue color for social media apps and later bring an infringement action against LinkedIn, another social media app using blue, Breyer's reasoning dictates that courts could differentiate the similar color marks.[73]

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[66] *See Qualitex*, 514 U.S. at 166.

[67] 514 U.S. 159 (1995).

[68] *See id.* at 166; *NutraSweet*, 917 F.2d at 1024 (reaffirming per se rule against using color marks); Master Distrib. Inc. v. Pako Corp., 986 F.2d 219, 219 (8th Cir. 1993) (declining to apply per se rule against color but finding the reasoning of *Owens-Corning Fiberglas* persuasive); *see also* Berman, *supra* note 57, at 116 (discussing theories and arguments that *Qualitex* rejected including the mere-color rule, the color-depletion theory, and the shade confusion theory).

[69] *See Qualitex*, 514 U.S. at 166. The functionality doctrine prevents trademarking elements of products or packaging that are essential to their use. *See id.*

[70] *Id*. at 163.

[71] *See id.* at 167 (discussing *NutraSweet*, 917 F.2d at 1028).

[72] *See id.* (citing Kimberly-Clark Corp. v. H. Douglas Enters., Ltd., 774 F.2d 1144 (Fed. Cir. 1985)).

[73] *See Our Trademarks*, Meta, https://www.facebook.com/brand/resources/meta/our-trademarks/ [https://perma.cc/B2YC-5MSM]. Notably, Facebook uses two different blue colors for their two "F" logos. *See id.* Although both logos are registered marks, neither claims color as a feature of the mark. *See* F, Serial No. 88,250,308 (color is not claimed as a feature of the mark); F, Registration No. 6,318,050 (color is not claimed as a feature of the mark); *Color Palettes*, LinkedIn Brand Resources, https://brand.linkedin.com/content/brand/global/en_us/index/visual-identity/color-palettes [https://perma.cc/22LF-RWXC].

Qualitex rejected Jacobson Products' color depletion theory that granting a color mark to a company would eventually limit the pool of colors available to competitors to brand their products.[74] Justice Breyer, writing for a unanimous court, reasoned that the functionality doctrine would prevent any potentially anticompetitive effects of color depletion.[75] He explained that when color becomes a useful aspect of a product and thereby contributes to its function, section 14 of the Lanham Act permits a petition for cancellation of functional marks.[76] For example, in *In re Ferris Corp.*,[77] the TTAB found the color pink to be functional as applied to surgical wound dressings because the color functioned to match skin color.[78]

The Court ultimately found that the Lanham Act does not forbid trademark registration of a color.[79] After *Qualitex*, the USPTO can register a color as a mark where the applicant demonstrates that the color is non-functional and has acquired secondary meaning.[80]

1. Trade Dress for Product Design, Product Packaging, and the Tertium Quid

Two years before *Qualitex*, the Supreme Court held that trade dress could be inherently distinctive absent a showing of acquired secondary meaning in *Two Pesos, Inc. v. Taco Cabana, Inc.*,[81] which dealt with the trade dress furnishings and design of Mexican restaurants.[82] The Court reasoned that imposing a secondary meaning requirement for trade dress would clash with the purpose of the Lanham Act to foster fair competition and could burden

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[74] *See Qualitex*, 514 U.S. at 168.

[75] *See id.* at 164–65, 168–69 (explaining that the functionality doctrine prohibits the registration of functional aspects of a product's design as a trademark and thereby disallows companies from controlling a useful feature of a product).

[76] *See id.*; McCarthy, *supra* note 28, at § 7:63–64 (explaining that the functionality doctrine applies to aspects of trade dress that possess utilitarian purpose and that allowing trademarks for functional features encroaches on the boundary between trademark law protections and patent law protections); Lanham Act § 14(3), 15 U.S.C. § 1064(3) (2018).

[77] 59 U.S.P.Q.2d 1587 (T.T.A.B. 2000).

[78] *See id.* at 1592.

[79] *See Qualitex*, 514 U.S. at 164. Also relevant to the Supreme Court's analysis was the time that Qualitex had been using the green-gold color. *See id.* If colors have attained secondary meaning over time, producers like Qualitex should be able to "reap the financial, reputation related rewards associated with a desirable product." *Id.*

[80] *See, e.g.*, TMEP § 1202.05(a) (July 2022).

[81] 505 U.S. 763 (1992).

[82] *See id.* at 765. Taco Cabana described its trade dress as:

> A festive eating atmosphere having interior dining and patio areas decorated with artifacts, bright colors, paintings and murals. The patio includes interior and exterior areas with the interior patio capable of being sealed off from the outside patio by overhead

new businesses in markets where competitors want to appropriate their trade dress and take advantage of the new businesses' burgeoning popularity.[83]

The Supreme Court later restricted the otherwise broad trade dress holding of *Two Pesos* and reinforced its *Qualitex* rule, at least regarding product design trade dress, in *Wal-Mart Stores, Inc. v. Samara Bros. Inc.*,[84] in which it opined on the form and function of children's clothing.[85] The Court considered whether Wal-Mart infringed on the unregistered product design trade dress of children's clothing manufacturer Samara Brothers when it hired a third company to imitate Samara's designs for children's clothing.[86] Justice Scalia's opinion reasoned that like color marks, product design trade dress could never be inherently distinctive.[87] The Court found that garment and product designs were extremely likely to serve "purposes other than source identification" in that the features such as stitching on T-shirts are primarily functional and serve "utilitarian and esthetic" purposes.[88] Thus, product design is only protectable upon proof of secondary meaning.[89] Justice Scalia distinguished *Two Pesos*, reasoning that the restaurant decorations at issue in that case did not constitute product design, but product packaging or "some tertium quid that is akin to product packaging."[90]

Wal-Mart seemingly created two categories of trade dress—product design trade dress and product packaging trade dress.[91] Product packaging is capable of inherent distinction while product design is not.[92] However, *Wal-Mart* also created the tertium quid or, literally, some "third thing," that falls between

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garage doors. The stepped exterior of the building is a festive and vivid color scheme using top border paint and neon stripes.

Id.

[83] *See id.* at 774.

[84] 529 U.S. 205 (2000).

[85] *See id.* at 206 (citing Qualitex Co. v. Jacobson Prods. Co., 514 U.S. 159, 162–63 (1995)).

[86] *See id.* at 207–08. The Court did not opine on Samara Brothers' copyright claims to certain elements on the articles of clothing, although the copyright elements were ruled on by lower courts.

[87] *See id.* at 212.

[88] *Id.* at 213; *see* Shayna Ann Giles, *Trade Dress: An Unsuitable Fit for Product Design in the Fashion Industry*, 98 J. Pat. & Trademark Off. Soc'y 223, 245 (2016) (discussing how less trade dress protection for product design in fashion allows for greater creativity).

[89] *See* Wal-Mart Stores, Inc. v. Samara Bros. Inc., 529 U.S. 205, 216 (2000).

[90] *Id.* at 215 (italics omitted).

[91] *See, e.g.*, Ingrida Karins Berzins, *The Emerging Circuit Split over Secondary Meaning in Trade Dress Law*, 152 U. Pa. L. Rev. 1661, 1665, 1670 (2004).

[92] *See id.* at 1669–70.

product design and packaging marks.[93] Justice Scalia provided some guidance for courts addressing the tertium quid, advising them to err on the side of caution and demand proof of secondary meaning where the mark falls between packaging and design.[94] Justice Scalia gave the example of a Coke bottle as a case treading between packaging and design, writing that the bottle "may constitute packaging for those consumers who drink the Coke and then discard the bottle, but may constitute the product itself for those consumers who are bottle collectors."[95] Scalia found that such determinations would be significantly fewer than product design determinations.[96]

After *Wal-Mart*, scholars have set forth many ideas about how to rein in product packaging trade dress protections.[97] *Gilson*, a leading trademark treatise, suggests that courts differentiating product design from packaging should ask whether "the feature [is] an element that typically serves to identify the source of a product or service."[98] If yes, then a court should determine that the element is probably packaging, but if not, then the element is probably design.[99] *Gilson* suggests that where trade dress is "conceptually separable from the product," it should be considered packaging.[100] A key issue is whether consumers perceive trade dress as source indicating.[101]

F. The Two Forney Cases: A Circuit Split over the Distinctiveness of Multi-Color Marks

In 2014, hardware company Forney brought an infringement action for the color scheme of a black bar underscored by a gradient of yellow to red as applied to product packaging for welding tools.[102] The controversy resulted in a decision from the United States Court of Appeals for the Tenth Circuit ("Tenth Circuit").[103] The Tenth Circuit held that a multi-color mark could only be inherently distinctive where "specific colors are used in combination

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[93] 1 Anne Gilson LaLonde, Gilson on Trademarks § 2A.02 (Matthew Bender & Co., Inc. eds., 2022).

[94] *See Wal-Mart*, 529 U.S. at 215.

[95] *Id.* at 215.

[96] *See id.*

[97] *See, e.g.*, Kate B. Briscoe, *Evolving Standards for Protecting Product Configuration Trade Dress: In the Wake of* Wal-Mart Stores v. Samara Brothers, 10 Fed. Cir. B.J. 359, 390 (2001) (suggesting that the functionality doctrine should be used to limit product design or configuration marks after *Wal-Mart* instead of requiring secondary meaning).

[98] Gilson, *supra* note 93, at § 2A.02.

[99] *See id.*

[100] *Id.*

[101] *See id.*

[102] *See* Forney Indus., Inc. v. Daco of Mo., Inc., 835 F.3d 1238, 1238 (10th Cir. 2016).

[103] *See id.*

with a well-defined shape, pattern, or other distinctive design."[104] Amidst the dispute, Forney applied to register its multi-color mark with the USPTO.[105] On appeal from the TTAB, the Federal Circuit's *Forney* decision departed from the Tenth Circuit's in that it did not require a color mark to be confined by a border; this means that color schemes can be inherently distinctive for product packaging trade dress.[106]



Figure 1. Forney's Proposed Mark.[107]

The Federal Circuit found the Forney design to be more like Taco Cabana's trade dress than Samara Brothers' children's clothing.[108] It reconciled that under *Wal-Mart*, the Supreme Court indicated product packaging trade dress can be inherently distinctive and that *Qualitex* did not expressly require a showing of acquired distinctiveness for trade dress.[109] On remand, the Federal Circuit instructed the TTAB to apply the *Seabrook* factors, considering the overall impression of the elements of Forney's proposed mark to determine if the mark was inherently distinctive and eligible for placement on the Principal Register.[110] Without explanation, Forney abandoned its application before a final determination was made on its mark.[111]

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[104] *Id.* at 1248.

[105] *See* U.S. Trademark Application Serial No. 86/269,096 (filed May 1, 2014).

[106] *See In re* Forney Indus., Inc., 955 F.3d 940, 940 (Fed. Cir. 2020).

[107] U.S. Trademark Application Serial No. 86/269,096 (filed May 1, 2014).

[108] *See In re Forney*, 955 F.3d at 946.

[109] *See id.* (citing Wal-Mart Stores, Inc. v. Samara Bros. Inc., 529 U.S. 205, 211–12 (2000); Qualitex Co. v. Jacobson Prods. Co., 514 U.S. 159, 162–63 (1995)).

[110] *See id.* at 948. *See* discussion of *Seabrook* factors *supra* Section I.C.

[111] *See* U.S. Trademark Application Serial No. 86/269,069 (Notice of Abandonment filed July 19, 2021).

G. Protections and Aesthetic Functionality of Colors in Fashion

Fashion companies most often use trademarks to protect their intellectual property.[112] When planning marketing for products, colors are so valuable to fashion and cosmetics brands that they often retain consultants or obtain subscriptions to color trend reports.[113] Colors also serve to evoke a brand identity that helps connect consumers with brands that they feel fit their self-identity.[114]

Courts determining if a fashion brand can be granted exclusive, monopolistic rights to use a color, or colors, consider whether the color is aesthetically functional.[115] When a feature of trade dress is found to be functional, it cannot be granted trademark protection.[116] The functionality doctrine bars granting trademark rights that would prevent "legitimate competition."[117]

In *Christian Louboutin, S.A. v. Yves Saint Laurent America Holding, Inc.*,[118] the United States Court of Appeals for the Second Circuit ("Second Circuit") teased out the issue of aesthetic functionality when luxury shoe designer Christian Louboutin attempted to claim trademark protection for red-soled shoes.[119] Since courts typically do not differentiate between shades of red, Louboutin's claim for all shoes with red outsoles, even red shoes, would have given the designer significant competitive advantages.[120] The Second Circuit applied the secondary meaning requirement from *Qualitex* to find that

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[112] *See, e.g.*, John Zarocostas, *The Roles of IP Rights in the Fashion Business: A U.S. Perspective*, WIPO Mag. (Aug. 2018), https://www.wipo.int/wipo_magazine/en/2018/04/article_0006.html [https://perma.cc/QW6A-X8TR]; Tatiana Lipovaya et al., *Trademarks in the Fashion Industry*, IPR Grp. (May 25, 2020), https://iprgroup.info/trademarks-in-the-fashion-industry-digest-03-2020/ [https://perma.cc/X8BL-QMKJ].

[113] *See, e.g.*, Ahyoung Han et al., *Color Trend Analysis Using Machine Learning with Fashion Collection Images*, 40 Clothing & Textiles Rsch. J. 308, 308, 310 (2021).

[114] *See* Jessica Ridgway & Beth Meyers, *A Study on Brand Personality: Consumers' Perceptions of Colours Used in Fashion Brand Logos*, 7 Int'l J. Fashion Design, Tech. & Educ. 50, 54 (2014) (analyzing how consumers perceive colors and logos for branding and using online survey results to conclude that fashion brands should use colors that symbolize personality traits that they want their brand to convey); Satyendra Singh, *Impact of Color on Marketing*, 44 Mgmt. Decision 783, 784–86 (2006).

[115] *See* Christian Louboutin, S.A. v. Yves Saint Laurent Am. Holding, Inc., 696 F.3d 206, 212, 221–23 (2d Cir. 2012) (discussing the modern formulation of aesthetic functionality). TMEP prefers "ornamentation" to "aesthetic functionality," but the terms are synonymous. *See* TMEP § 102.02(a)(vi) (July 2022).

[116] *See* TrafFix Devices, Inc. v. Marketing Displays, Inc., 523 U.S. 23, 32 (2001).

[117] *Louboutin*, 696 F.3d at 218 (citing Nora Beverages, Inc., v. Perrier Grp. Of Am., Inc., 269 F.3d 114, 120 n.4 (2d Cir. 2001)).

[118] 696 F.3d 206 (2d Cir. 2012).

[119] *See id.* at 224.

[120] *See id.* at 213.

protection for Louboutin's mark was narrow, only extending to shoes with red outsoles that contrast with the upper portion of the shoe.[121] Although it rejected the lower court's suggestion of a per se fashion industry-specific rule against trademarking color, the Second Circuit acknowledged the difficulty of assessing the functionality of color for fashion and clothing where color can be both ornamental and a form of branding.[122] The case highlighted the tension between the desire of designers to protect the colors of their designs and the benefits to consumers of allowing other companies to use those colors to create similar, but more affordable, designs.[123]

H. Young Brands, Young People, and Forward-Thinking: Changes in Product Packaging

Sustainability and responsibility have become key considerations in fashion and cosmetics when crafting new products and packaging.[124] The *BrandZ Top 100 Global Brands* reports for 2020 and 2021 reflect that fashion and cosmetics brands prioritize sustainability.[125] In addition to demands for sustainability, the 2021 report reveals that the influence of social media apps on consumer behavior has continued to increase with Instagram rolling out in-app shopping and online behemoths like Amazon that have begun to experiment with "shoppable entertainment."[126] For retail, the 2021 report indicates that brands should optimize their packaging, opining that "ideal branded packaging [] would be unapologetically Different, but also unassailably Green."[127] These goals are important for capturing new generations of millennial and Gen Z consumers, who similarly demand transparency, traceability, and sustainability from brands.[128] Brands are searching for sustainable ways to deliver items

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[121] *See id.* at 227.

[122] *See id.* at 223–24.

[123] *See id.* at 222.

[124] *See* BrandZ Top 100 Most Valuable Global Brands 2020, *supra* note 16, at 16, 122, 162; BrandZ Most Valuable Global Brands 2021, *supra* note 16, at 41. These reports are compiled by Kantar, a leading analytics and brand consulting firm that provides global market data. *See* BrandZ Top 100 Most Valuable Global Brands 2020, *supra* note 16, at 16.

[125] *See generally* BrandZ Most Valuable Global Brands 2020, *supra* note 16; BrandZ Most Valuable Global Brands 2021, *supra* note 16.

[126] BrandZ Most Valuable Global Brands 2021, *supra* note 16, at 66.

[127] *Id.* at 65.

[128] *See* Callum Tyndall, *Youth Gone Wild: How Young Consumers Are Transforming Brands*, Inside Packaging (Sept. 2019), https://inside-packaging.nridigital.com/packaging_sep19/youth_gone_wild_how_young_consumers_are_transforming_brands#mainBackground [https://perma.cc/D6XL-JUKH].

to customers, with refillable packaging and reusable mailing boxes.[129] In late 2021, skin care brand Glow Recipe introduced a modular system of refillable moisturizers to minimize plastic consumption and waste.[130] Athleisure brand Lululemon offers reusable tote bags with every purchase.[131] Fenty Beauty, Charlotte Tilbury, and Dior have released refillable lipstick packaging.[132] And Adidas has packaged shoes in floral boxes durable enough to store and keep.[133]

Glossier is emblematic of young companies harnessing social media and trademark protections to build brand identities meant to grab and keep the attention of young consumers.[134] In response to Glossier's initial trademark application for a postage box with a pink interior, the USPTO refused registration under sections 1, 2, and 45 of the Lanham Act because it found that one or more of the colors as applied to the box were not inherently distinctive, citing *Qualitex* and *Wal-Mart*.[135] In response, Glossier produced over a hundred consumer declarations indicating that the box had attained secondary meaning because buyers knew the box to "originate exclusively from Glossier and not from any other source" and attached news articles discussing packaging, some referring to the boxes and bubble wrap pouches as "iconic."[136]

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[129] *See, e.g.*, Rachel Deeley, *Reusable Packaging Start-Up Olive Expands Into Beauty*, Bus. Fashion (Sept. 15, 2021), https://www.businessoffashion.com/news/sustainability/reusable-packaging-start-up-olive-expands-into-beauty/ [https://perma.cc/K7CD-MHNG].

[130] *See* Camilla Rydzek, *Glow Recipe Introduces Modular Packaging for Its New Plum Cream to Encourage Refilling*, Industry.beauty (Dec. 13, 2021), https://theindustry.beauty/glow-recipe-introduces-modular-packaging-for-its-new-plum-cream-to-encourage-refilling/ [https://perma.cc/D2MQ-MJSL].

[131] *See* Lululemon Reusable Bag, *supra* note 1, and accompanying text.

[132] *See* Marie Redding, *Fenty Beauty Launches Icon Refillable Lipstick*, Beauty Packaging (Feb. 3, 2022), https://www.beautypackaging.com/contents/view_breaking-news/2022-02-03/fenty-beauty-launches-icon-refillable-lipstick/ [https://perma.cc/RS7Q-BE83]; Amy Sedghi, *8 Best Refillable Lipsticks that Can Help Reduce Your Beauty Waste*, Independent (Mar. 11, 2021), https://www.independent.co.uk/extras/indybest/fashion-beauty/make-up/best-refillable-lipsticks-b1811851.html [https://perma.cc/LJ2A-6YKT].

[133] *See* Natalie Mouradian, *We Can't Help but Swoon over This Special Edition Adidas Packaging*, Dieline (Sept. 23, 2019), https://thedieline.com/blog/2019/9/23/we-cant-help-but-swoon-over-this-special-edition-adidas-packaging? [https://perma.cc/4JLW-2PG8].

[134] *See Glossier Now Has a Trademark Registration for Its Millennial Pink-Lined Product Packaging*, *supra* note 3.

[135] *See* U.S. Trademark Application Serial No. 88/422,355 (Office Action Outgoing filed Aug. 28, 2019).

[136] U.S. Trademark Application Serial No. 88/422,355 (Exhibits A, D to Response to Office Action filed Feb. 27, 2020).

Glossier also attached dozens of Instagram images of open boxes shared by consumers to showcase Glossier products.[137]

On social media, brands have seconds to capture consumers' attention, and this pursuit is enhanced by the colorfulness of visual marketing.[138] Visual marketing in social media and online has changed how consumers view packaging.[139] The hashtag #packagingdesign on Instagram has over two and a half million associated photos; among the first posts are neon tie-dye chocolate boxes, lavender beverage cans, a bright red shipping box for underwear, and pastel drawstring tulle perfume bags.[140] The hashtag #unboxing has over four million results on Instagram alone.[141] Unboxing videos feature people taking products directly out of the packages to share with their online community.[142] Scholars have observed that these forms of lifestyle content are "shoppable" because consumers see a lifestyle that they aspire to and can then click links to purchase.[143] These videos, popular with consumers seeking reviews of clothing and cosmetics, often give opinions on product efficacy, design, and packaging.[144] Packaging is integral to the success of a company because, as one journalist observed, "well-designed packaging means that some stuff doesn't get discarded at all, because its sturdy and beautiful enough to be repurposed."[145]

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[137] *See* U.S. Trademark Application Serial No. 88/422,355 (Exhibits C, D to Response to Office Action filed Feb. 27, 2020).

[138] *See* Yiyi Li & Ying Xie, *Is a Picture Worth a Thousand Words? An Empirical Study of Image Content and Social Media Engagement*, 57 J. Mktg. Rsch. 1, 10 (2020) (conducting empirical study of social media about airlines and sports utility vehicle image content on Instagram and Twitter and finding in part that, consistent with prior marketing research, "pictures with more color variation lead to a higher number of retweets").

[139] *See, e.g.*, Mark Hewitt, *How Social Media Is Changing Packaging Design*, Beauty Packaging (Mar. 14, 2019), https://www.beautypackaging.com/contents/view_online-exclusives/2019-03-14/how-social-media-is-changing-packaging-design/ [https://perma.cc/Q4JF-9KA6].

[140] *See* #packagingdesign, Instagram, https://www.instagram.com/explore/tags/packagingdesign/ [https://perma.cc/P22V-U5L3].

[141] *See* #unboxing, Instagram, https://www.instagram.com/explore/tags/unboxing/ [https://perma.cc/FL78-BHPP].

[142] *See, e.g.*, blackgirlunboxing (@blackgirlunboxing), Instagram, https://www.instagram.com/blackgirlunboxing/?hl=en [https://perma.cc/5878-CXD2].

[143] *See* Emily Hund & Lee McGuigan, *A Shoppable Life: Performance, Selfhood, and Influence in the Social Media Storefront*, 12 Commc'n Culture & Critique 18, 23 (2019).

[144] *See* Annie Pilon, *What Is a Haul Video and How Can You Use It to Promote Your Retail Business*, Small Bus. Trends (Feb. 27, 2019), https://smallbiztrends.com/2019/02/haul-video.html [https://perma.cc/TW5Y-CE8S].

[145] Amanda Mull, *The Package Is the Message: American Consumers Can't Resist the Lure of a Well Designed Container*, Atlantic (Nov. 22, 2021), https://www.theatlantic.com/

II. The *Forney* Decision Is at Odds with Prior Rules About Color and Trade Dress

When the Federal Circuit reconciled *Wal-Mart*, *Qualitex*, and *Two Pesos* in *Forney*, its holding that multi-color product packaging marks were capable of inherent distinctiveness highlighted the tension between the judicially created rules that arose from these cases. For the fashion and cosmetics industries, if read expansively, *Forney* will create an unworkable standard for color trademarks. First, the *Forney* test could very well lead to registration of packaging trademarks that do not serve the Lanham Act's goal of consumer source identification. It does this by leaving inherent distinctiveness determinations to subjective tools and understating the long-held recognition by courts and the USPTO that color marks always require proof of secondary meaning by the applicant.[146] Second, because of its facts, *Forney* did not consider how consumer perception of packaging has changed since the Supreme Court's *Wal-Mart* decision in light of nationwide sustainability goals and e-commerce. Although courts have yet to adopt industry specific rules, a bright-line rule about the number of colors that are capable of inherent distinction would avoid the potentially anticompetitive effects of *Forney* in the fashion and cosmetics industries, where the delineation between colors applied to packaging and design makes little sense.

A. The *Forney* Decision's Tension with *Qualitex*

In its decision on Forney's mark, the Federal Circuit reconciled *Qualitex*, *Two Pesos*, and *Wal-Mart*, but its broad reading of the cases for product packaging trade dress signals an issue for fashion and cosmetics marks.[147] In *Qualitex*, the Supreme Court recognized that consumers sometimes associated colors with a brand or source of products, even if the Lanham Act and its subsequent amendments did not explicitly provide protections for colors.[148] *Qualitex* found that single color marks were never inherently distinctive and the decision granted protection for single colors only upon a showing of secondary meaning.[149] However, in *Forney*, the Federal Circuit conflated color

magazine/archive/2021/12/unboxing-packaging-shopping-delight/620523/ [https://perma.cc/2R8M-VCS6].

[146] *See, e.g.*, Christian Louboutin S.A. v. Yves Saint Laurent Am. Holding, Inc., 696 F.3d 206, 217 (2d Cir. 2012) (noting that "the recognition by some courts that color standing alone can, in some circumstances, acquire secondary meaning was an important building block in the evolution of single-color marks").

[147] *See In re* Forney Indus., Inc., 955 F.3d 940, 940 (Fed. Cir. 2020).

[148] *See* Qualitex Co. v. Jacobson Prods. Co., 514 U.S. 159, 162–63 (1995).

[149] *See id. But see In re Forney*, 955 F.3d at 946 (reasoning that the Court in *Qualitex* "implied that a showing of acquired distinctiveness may be required before a trade dress

and trade dress jurisprudence when it did not find that *Qualitex* created an explicit secondary meaning requirement for colors applied to trade dress.[150] The *Forney* court found that the secondary meaning requirement was implemented later in *Wal-Mart*, and the secondary meaning requirement only applied to product *design* marks.[151] *Forney* diminishes the fact that courts and the USPTO have consistently applied the secondary meaning requirement to color protections for both design and packaging and have attributed the secondary meaning requirement to *Qualitex* since it was decided.[152] The secondary meaning requirement of *Qualitex* is important to color trademarks generally because it ensures that, consistent with the aims of the Lanham Act, consumers identify the colors as a trademark.[153] Unless narrowly construed, *Forney* may allow registration of multi-color marks that stray from the goals of the Lanham Act.[154]

Forney expands the potential for new color mark registrations and may allow companies to circumvent the secondary meaning requirement by arguing that their color scheme is unique enough as applied to certain packaging to be afforded immediate protections.[155] Companies would otherwise have to earn such coveted protections by proving either customer recognition or consistent, long-term use of the mark.[156] On its face, *Forney*'s less burdensome standard could allow small businesses to gain trademark protection more easily by devising a grabbing color scheme for their packaging.[157] However, the same protections will still be afforded to litigious, strategic, larger brands like Glossier.[158] For example, imagine a scenario where Glossier's marketing team reads a trend report and discovers that periwinkle is Pantone's color of

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marked based on color alone can be protectable, it did not expressly so hold" and finding that it was only later in *Wal-Mart* that the Supreme Court explicitly held that color marks could never be inherently distinctive).

[150] *See In re Forney*, 955 F.3d at 946.

[151] *See id.*

[152] *See, e.g.*, Christian Louboutin, S.A. v. Yves Saint Laurent Am. Holdings, Inc., 696 F.3d 206, 225 (2d Cir. 2012).

[153] *See Qualitex*, 514 U.S. at 163–64.

[154] *See In re Forney*, 955 F.3d at 940.

[155] *See id.*; *see also* Sara Bro, *Federal Circuit Confirms that Colour Marks of a Certain 'Character' Can Be Inherently Distinctive for Product Packaging*, 15 J. Intell. Prop. L. & Prac. 582, 582–83 (2020).

[156] *See* discussion of acquired distinctiveness and secondary meaning *supra* Section I.A.2.

[157] *See* Megan Bannigan et al., In re Forney *Could Herald a Brighter Future for Color Marks*, IPWatchdog (May 11, 2020), https://www.ipwatchdog.com/2020/05/11/re-forney-herald-brighter-future-color-marks/id=121497/ [https://perma.cc/2J6H-EE6F].

[158] *Cf. id.* (lauding the decision as an easier path to trademark protection for brands).

the year for 2022.[159] Glossier's team designs a box with their signature pink and adds periwinkle in a contrasting stripe formation (pink-blue-pink) to attract consumers who keep up with the trends.[160] Imagine that Glossier also applies for a trademark of the combination on the box.[161] Looking to the test from *Forney*, a USPTO trademark examining attorney could find that such a multi-color mark for product packaging could be registered whether or not it truly serves to identify the source of the goods, so long as the color scheme contains multiple colors and survives the *Seabrook* factors.[162]

The first and second *Seabrook* factors instruct the examining attorney to discern whether the periwinkle and pink stripes are "(1) a 'common' basic shape or design" in the world of fashion and cosmetics packaging, or whether the design is "(2) unique or unusual" in the field.[163] The answer to both questions may vary based on how the examining attorney looks for evidence and how much evidence they find of similarly colored boxes used to package cosmetics.[164] However, as the Trademark Manual of Examining Procedure ("TMEP") notes, the USPTO "is an agency of limited resources, and as such, it cannot be expected to shoulder the burden of conducting market research."[165] Moreover, an examining attorney would have the burden of establishing the prima facie case that Glossier's packaging is not inherently distinctive.[166] A search through

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[159] *See Announcing the Pantone Color of the Year 2022 PANTONE 17-3938 Very Peri*, Pantone, https://www.pantone.com/color-of-the-year-2022 [https://perma.cc/EWC9-FEQ8].

[160] *See* discussion *supra* Section I.H.

[161] *See id.*

[162] *See In re* Forney Indus., Inc., 955 F.3d 940, 948 (Fed. Cir. 2020); *In re* Integra Biosciences Corp., 2022 WL 225424, at *8–9 (T.T.A.B. 2022) (applying *Forney* multi-color rule to pastel packaging container of pipettes but refusing registration after finding that using color coded pipette racks was common practice for pipette manufacturers); discussion of *Seabrook* factors *supra* Section I.C.

[163] *In re Forney*, 955 F.3d at 947; TMEP § 1202.02(b)(ii) (July 2022). Notably, the July 2022 version of the relevant section of the TMEP points to the TTAB's 2018 *Forney* decision finding that a color mark, without additional elements, cannot be registered for product packaging trade dress. *See* TMEP § 1202.02(b)(ii) (July 2022) (citing *In re* Forney Indus., 127 U.S.P.Q.2d 1787, 1792 (T.T.A.B. 2018)). However, the TTAB's decision was overruled with the Federal Circuit's 2020 decision. *See In re Forney*, 955 F.3d at 947–48.

[164] *See* TMEP § 1202.19(e)(i)(A) (July 2022) ("Evidence showing that the repeating pattern in the applied-for mark is similar to, or a mere refinement or variation of, a common pattern or a pattern that is widely used on the relevant items, may support the conclusion that the applied-for mark is not inherently distinctive.").

[165] TMEP § 1202.02(b)(ii) (July 2022) (citing *In re* Pacer Tech., 338 F.3d 1348, 1352 (Fed. Cir. 2003)).

[166] *See id.*

social media may reveal consumers sharing images and videos of a multitude of colorful boxes and unpacking their contents.[167] The examiner may also consider the utility of these colors in the fashion industry and whether consumers are drawn towards colors when making spending decisions.[168] The TMEP gives examples of inherent distinctiveness for certain industries, like candle packaging, pet food cans, and holiday lighting.[169] However, no rule or consideration for fashion or cosmetics prompts the examining attorney to consider that companies use colors both functionally and as a brand signal.[170]

The third *Seabrook* factor would ask whether the hypothetical colorful stripes are a mere refinement of a common form or ornamentation for the particular class of goods of cosmetics or skin care.[171] The USPTO examining attorney may consider the importance of color schemes to ornamentation of the industry's packaging, but need not conduct extensive market research.[172] Although not binding on the USPTO, the Second Circuit in *Louboutin* granted trademark protections to red-soled shoes only upon a showing of secondary meaning.[173] Even though it granted trademark rights, the Second Circuit observed that color determinations are "particularly difficult" and highly fact-specific in fashion because there is often a tension between ornamentation and branding.[174]

Because fashion and cosmetics require such fact-intensive inquiries, it may be an inappropriate task for USPTO attorneys and courts to assess the competitive need for color schemes in this industry.[175] *Louboutin* discussed that colors ought to be available to designers until a designer has shown that the colors are so well associated with their brand as to be made unavailable to competing designers.[176] The imagined Glossier striped box simultaneously

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[167] *See, e.g.*, blackgirlunboxing, *supra* note 142.

[168] *See* TMEP § 1202.19(e)(i)(C)–(E) (July 2022) (giving examining attorneys minimal guidance on industry practice and types of products where design may be merely ornamental and not perceived as a source indicator). *See generally* Ridgway & Meyers, *supra* note 114.

[169] *See* TMEP § 1202.02(b)(ii) (July 2022).

[170] *See id.* § 1202.05(b)–(c).

[171] *See, e.g.*, *In re* Forney Indus., Inc., 955 F.3d 940, 947 (Fed. Cir. 2020).

[172] *See* TMEP §§ 1202.05, 1202.02(b)(ii) (July 2022).

[173] *See* Christian Louboutin, S.A. v. Yves Saint Laurent Am. Holding, Inc., 696 F.3d 206, 212 (2d Cir. 2012).

[174] *Id.* at 222–23.

[175] *See* NutraSweet Co. v. Stadt Corp., 917 F.2d 1024, 1028 (7th Cir. 1990) (discussing concern that courts are not the appropriate actors to assess competitive need of colors within a specific industry), *abrogated by* Qualitex Co. v. Jacobson Prods. Co., 514 U.S. 159, 161–62 (1995).

[176] *See Louboutin*, 696 F.3d at 225–26.

attempts to signal brand and display an ornamental three-color scheme.[177] Where such a simple color scheme is at play, requiring secondary meaning would avoid erroneous determinations about a color combination's significance to an industry because it demands a showing of consumer recognition through offers of proof by the trademark applicant.[178] The creation of a test accounting for the competitive need for colors in fashion and cosmetics provides a more consistent standard than the third *Seabrook* factor, which does not account for the duality of branding and ornamentation that is important to the fashion and cosmetics industries.[179]

Finally, the fourth *Seabrook* factor asks whether the colors are capable of creating a commercial impression distinct from the accompanying words.[180] This may also be a difficult determination in the fashion and cosmetics industries where "logo-fication" and name branding often drive sales and brand identity.[181] For example, in response to the USPTO's demand that Glossier support the claim that their pink boxes gained secondary meaning, Glossier attached exhibits of social media posts where users displayed open pink-lined shipping boxes filled with skin care and makeup baubles.[182] All of the posts displayed Glossier's stylized text logo either on the box or on its accompanying products.[183] The company received a mark for just the pink color,[184] but it would be a rare case in the fashion and cosmetics industries that a color scheme applied to packaging can indicate source separate from a logo.

If the examining attorney grants Glossier the mark, they grant an immediate, lasting protection and monopoly right over a trend for at least ten years or, safe to say, longer than a seasonal or annual color trend will last.[185] Because

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[177] *See Glossier Now Has a Trademark Registration for Its Millennial Pink-Lined Product Packaging*, *supra* note 3.

[178] *See* discussion of acquired distinctiveness and secondary meaning *supra* Section I.A.2.

[179] *Cf.* TMEP § 1202.02(b)(ii) (July 2022) (listing *Seabrook* factors as a general consideration for trade dress applications).

[180] *See, e.g.*, *In re* Forney Indus., Inc., 955 F.3d 940, 947 (Fed. Cir. 2020).

[181] *See* Note, *supra* note 13, at 1011; Ridgway & Meyers, *supra* note 114 (for more information about how consumers perceive colors and logos for branding and using online survey results to conclude that fashion brands should use colors that symbolize personality traits that they want their brand to convey).

[182] *See* U.S. Trademark Application Serial No. 88/422,355 (Exhibits A, D to Response to Office Action filed Feb. 27, 2020); Note, *supra* note 13, at 1011.

[183] *See* Note, *supra* note 13, at 1011.

[184] *See* The mark consists of the color pink as applied to the inner surface of portions of boxes that contrast with the color of the rest of the boxes, which form packaging for the goods, Registration No. 6,219,366.

[185] *Compare* Lanham Act § 8(a), 15 U.S.C. § 1058(a) (indicating that trademark registrations will stay in force for ten years), *with* Mariel Nelson, *Micro-Trends: The Acceleration*

the hypothetical mark would not serve to identify Glossier for longer than the company deems it trendy, query whether that mark truly serves the source-identifying function at the heart of the Lanham Act and the Supreme Court's holding in *Qualitex*.[186] Even if Glossier abandons the mark after a short run of packaging, a mark-infringing defendant would have to show that Glossier has discontinued use of the mark or that Glossier did not defend its mark such that it became generic under section 45 of the Lanham Act.[187]

Although *McCarthy*, another leading trademark treatise, prefers the use of the *Seabrook* factors to the *Abercrombie* spectrum when analyzing packaging trade dress, the *Seabrook* factors are still not a quantifiable measure of consumer perception in an industry like fashion or cosmetics.[188] Instead, they allow individuals to make subjective determinations about the perception of many unknown consumers.[189] Even if USPTO examining attorneys looking at multi-color product packaging marks in the fashion industry almost invariably find that they fail one of the *Seabrook* factors, a bright-line rule would create stability among examining attorneys and minimize conflicting determinations for fashion and cosmetics marks.

B. The *Forney* Decision's Tension with *Wal-Mart*

In *Forney*, the Federal Circuit gave weighty consideration to dicta within *Wal-Mart* that identified product packaging as something that typically signals branding.[190] Forney's yellow-to-red gradient and black bar design as applied to the cardboard packaging was so similar to product packaging examples in *Wal-Mart* that it did not prompt the Federal Circuit to consider how consumer perception of packaging has shifted since *Wal-Mart*.[191] First, consumers are increasingly drawn towards sustainable packaging and brands are flexing to meet this demand with creative reusable packaging.[192] This highlights the

of Fashion Cycles and Rise in Waste, WRAP Blog (May 17, 2021), https://wrapcompliance.org/blog/micro-trends-the-acceleration-of-fashion-cycles-and-rise-in-waste/ [https://perma.cc/EKW7-UQE5] (writing that micro-trends last three to five years while macro-trends last five to ten years).

[186] *See* Qualitex Co. v. Jacobson Prods. Co., Inc., 514 U.S. 159, 168–69 (1995).

[187] *See* Lanham Act § 45, 15 U.S.C. § 1127 (2018).

[188] *See* McCarthy, *supra* note 28, at § 8:13.

[189] *See id.* (giving examples of fact-specific determinations by the Federal Circuit in applying the *Seabrook* factors).

[190] *See In re* Forney Indus., Inc., 955 F.3d 940, 946 (Fed. Cir. 2020).

[191] *See id.*; *see also* Wal-Mart Stores, Inc. v. Samara Bros., Inc., 529 U.S. 205, 212 (2000) (giving example of Tide detergent's brightly colored orange packaging meant to attract consumer attention but served the primary function of source identification).

[192] *See* BrandZ Most Valuable Global Brands 2021*, supra* note 16, at 57 (expert insights offering that personal care companies have implemented sustainable innovations

tertium quid issue left open by *Wal-Mart* because a growing number of marks traditionally thought of as packaging are now on the line between packaging and product design.[193] Second, the intensification of visual marketing through shoppable social media platforms has made colors more valuable in the construction of brand identity while creating a greater significance of product packaging to consumers.[194]

1. Sustainability Concerns Clash with Traditional Notions of Product Packaging

Sustainability is a main concern of product packaging development and a central buying motivation for consumers.[195] A growing number of brands like Glossier, Fenty Beauty, and Chanel are rolling out sustainable options that reduce single-use plastics and promote reusing the packaging.[196] These modular, reusable elements that are gaining popularity even beyond fashion and cosmetics and contribute to the global shift towards minimizing waste fall somewhere between traditional product packaging and product design under the rule in *Wal-Mart*.[197] *Wal-Mart* created a spectrum for these marks, rather than two separate categories of product packaging and product design, because some marks will fall somewhere between those two categories in the realm of "some tertium quid."[198] The Federal Circuit did not discuss in depth the tertium quid issue that Justice Scalia identified in *Wal-Mart* when it found that multi-color marks for trade dress were capable of inherent distinction in *Forney*.[199]

The tertium quid left open by *Wal-Mart* merits further consideration by the Federal Circuit with the accelerated growth of reusable packaging and modular components.[200] Justice Scalia wrote in *Wal-Mart* that these determinations

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including P&G and Unilever which have made refillable toiletries more widely available).

[193] *See id.*

[194] *See* Hund & McGuigan, *supra* note 143, at 18, 23 (discussing social purchasing based on lifestyle media content on social platforms); Han et al., *supra* note 113, at 308, 310 (giving background on the importance of color trend analysis to prediction of consumer buying habits and the success of fashion branding).

[195] *See* BrandZ Most Valuable Global Brands 2021, *supra* note 16, at 65 (observing that the recent e-commerce boom has placed importance on packaging design and that "the ideal branded packaging, then, would be unapologetically Different, but also unassailably Green").

[196] *See* Redding, *supra* note 132; Sedghi, *supra* note 132.

[197] *See* Wal-Mart Stores, Inc. v. Samara Bros., Inc., 529 U.S. 205, 215 (2000).

[198] *Id.* at 251 (italics omitted); *see also* discussion of *Wal-Mart*, *supra* Section I.E.1.

[199] *See In re* Forney Indus., Inc., 955 F.3d 940, 946 (Fed. Cir. 2020).

[200] *See* BrandZ Most Valuable Global Brands 2021, *supra* note 16, at 66 (emphasizing growth of e-commerce on social media websites).

would be far fewer than product design determinations, but over twenty years later, packaging has begun to shift towards something that consumers buy with the intent to keep for a long time.[201] For example, the athletics and leisure brand Lululemon offers customers a reusable tote bag when they purchase clothing.[202] Like the colorful packaging in *Forney*, the tote bag has changed designs over time but has consistently used the colors red, black, or white in some form.[203] These bags are not only reused by the consumer, but they are also resold on websites like eBay and Poshmark as products themselves.[204] Yet, like the Glossier bubble wrap pouch that was granted protection as a product packaging mark, the Lululemon bag also serves the traditional packaging use to contain and protect items.[205]

The guiding dicta from *Wal-Mart* does not delineate when Lululemon's reusable bag is more like packaging or more like design.[206] Justice Scalia gave examples of a penguin-shaped cocktail shaker and a Coca-Cola bottle.[207] With regard to the penguin cocktail shaker, Justice Scalia identified that the shape of the shaker rendered the product more appealing and so inherent distinctiveness would be problematic.[208] Yet, without distinguishing the shaker, he also wrote that sometimes the Coke bottle constitutes packaging containing the soft drink, and at other times constitutes the product itself.[209] In this instance, Justice Scalia implied that secondary meaning is required because the shape of the bottle renders the product more appealing.[210]

Applying the penguin shaker versus Coke bottle logic to the Lululemon bag, the consumer may be in the market for athleisure gear, but the fact that the items will be placed in a colorful tote bag renders the product more appealing, like the penguin cocktail shaker or the empty, curvaceous glass Coke

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[201] *See Wal-Mart*, 529 U.S. at 215.

[202] *See* Lululemon Reusable Bags, *supra* note 1; discussion *supra* Section I.H.

[203] *Compare* sources cited *supra* note 1, *with* Amended Appendix for Appellant Forney Industries at 12, Forney Indus., Inc. v. Daco of Mo., Inc., 835 F.3d 1238 (10th Cir. 2016) (No. 15-1226) (Forney had used the colors red, yellow, and black in various combinations on its products since as early as 1964).

[204] *See, e.g.*, Lululemon Reusable Bags, *supra* note 1.

[205] *See, e.g.*, *Glossier Now Has a Trademark Registration for Its Millennial Pink-Lined Product Packaging*, *supra* note 3; Barbaro, *supra* note 1.

[206] *Cf. Wal-Mart*, 529 U.S. at 215 (giving example of a Coca-Cola bottle and suggesting that at times even packaging can be a product, but not considering further examples like reusable shopping bags).

[207] *See id.* at 213, 215; *see also* Gilson, *supra* note 93, at § 2A.02.

[208] *See Wal-Mart*, 529 U.S. at 213.

[209] *See id.* at 215.

[210] *See id.*

bottle.[211] Likewise, the Glossier bubble wrap pouch may be given as a free gift to persons in the market for lip gloss, but additionally renders Glossier's products more appealing.[212] As reusable packaging continues to gain importance in fashion and cosmetics, the tertium quid analysis will become not only a more important consideration for courts and the USPTO, but it will also become a harder determination to make, perhaps in more than just the fashion and cosmetics industries.[213]

When *Forney* justified registration of multi-color marks for packaging as inherently distinctive, it created a conflict with *Wal-Mart*'s recognition that secondary meaning should be shown where an element—like color—renders a product or packaging more appealing.[214] *Wal-Mart* reasoned that "where it is not reasonable to assume consumer predisposition to take an affixed word or packaging as indication of source, inherent distinctiveness will not be found."[215] Yet, *Forney* permits the registration of color schemes, even in the fashion and cosmetics industries.[216] Extending the reasoning in *Wal-Mart*, the colors of reusable packaging components serve a purpose beyond the identification of the source, thus, findings that the colors of packaging are inherently distinctive pose a harm to consumer interest by restricting competitors from creating equally attractive, cheaper alternatives.[217]

The Supreme Court in *Wal-Mart* counseled that when faced with situations where a mark is not quite packaging and not quite design, lower courts and examining attorneys should err on the side of caution and require a showing of secondary meaning.[218] Examining attorneys at the USPTO make product or packaging determinations on a case-by-case basis, so stricter guidance for color is needed as applied to these marks in the fashion and cosmetics industries.[219]

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[211] *See id.* at 213, 215.

[212] *See id.*

[213] *Cf. id.* at 215 (discussing that where a Coke bottle is more like a product itself, courts should apply secondary meaning); Gilson, *supra* note 93, at § 2A.02 (discussing the tertium quid issue with respect to collectible containers and opining that the "*Wal-Mart* tilt toward product design in ambiguous cases may be an oversimplified answer" to such issues).

[214] *See In re* Forney Indus., Inc., 955 F.3d 940, 945–46 (Fed. Cir. 2020); *Wal-Mart*, 529 U.S. at 215.

[215] *Wal-Mart*, 529 U.S. at 206.

[216] *See In re Forney*, 955 F.3d at 941.

[217] *See Wal-Mart*, 529 U.S. at 215.

[218] *See id.*

[219] Although not the focus of this Note, there is an argument that the categories of "product packaging," "product design," and "tertium quid" should be streamlined and defined for ease of application by the USPTO and courts. *See* Lemley & McKenna, *supra* note 56 (concluding that the USPTO employs a dispositive "step zero" deciding if an application covers product or packaging before determining distinctiveness).

Scholarship has shown that trademark examiners at the USPTO often categorize trademarks as product design marks, product packaging marks, or pure color marks *before* engaging in a distinctiveness inquiry.[220] This being true, the *Forney* decision also creates tension with existing but uncodified examining procedure, and may lead to greater inconsistency with fashion and cosmetics trademark applications when applicants attempt to procure protections for packaging that is, at times, the product itself. To avoid inconsistencies in trademark protections, the Federal Circuit should formally require a showing of secondary meaning for packaging color schemes comprised of three or fewer colors. This requirement would eliminate most of the issues arising from the tertium quid of product packaging in fashion and cosmetics because registration of two- and three-color combinations without such a requirement could unduly burden new entrants by forcing them to adopt an alternative, nonoptimal color scheme.[221] Simultaneously, it would not disrupt the holding in *Forney*.

2. Social Media Marketing and the Significance of Colorful Packaging

The *Forney* decision is also at odds with current consumer perception of packaging in the fashion and cosmetics industries.[222] *Wal-Mart* established a lower threshold for product packaging marks by reasoning that packaging signals branding to consumers.[223] However, research in the new age of social media marketing for fashion and cosmetics brands indicates that consumers perceive packaging as something more than source-indicative branding; consumers view packaging as something that appeals to the personality they seek to project.[224] For example, a consumer in their mid to late thirties may see themselves as sophisticated and desire a subscription box of luxury cosmetics or apparel.[225] They scroll through Instagram and feel put off by the youthful neon colors of Birchbox but are attracted to the simple sophistication of the muted pinks and black of Glossybox.[226] The mid to late thirties

[220] *See* Lemley & McKenna, *supra* note 56, at 25, 35.

[221] *See* NutraSweet Co. v. Stadt Corp., 917 F.2d 1024, 1028 (7th Cir. 1990) (reasoning that it may prove difficult for courts to discern a competitive need for colors), *abrogated by* Qualitex Co. v. Jacobson Prods. Co., 514 U.S. 159, 168–69 (1995).

[222] *See* discussion *supra* Section I.H.

[223] *See Wal-Mart*, 529 U.S. at 212.

[224] *See id.*

[225] *See* Sophia Caraballo, *The 26 Best Beauty Subscription Boxes – 2022 Readers' Choice Awards*, My Subscription Addiction (Mar. 3, 2022), https://www.mysubscriptionaddiction.com/best-subscription-boxes/best-beauty-boxes [https://perma.cc/PND3-WDEC] (picturing examples of subscription box designs).

[226] *See id.*

consumer is often more drawn to the brand with colors that reinforce their own self-identity.[227]

If an examining attorney applies the *Forney* analysis to the pink and black Glossybox and allows Glossybox to trademark the simple color scheme, a new entrant into the subscription box market may be deprived of the colors it needs to signal the aesthetic of the customer they are attempting to attract.[228] *Wal-Mart* identified that "consumers should not be deprived of the benefits of competition with regard to the utilitarian and aesthetic purposes that product design ordinarily serves."[229]

Because *Forney*, read broadly, applies to registration of color schemes in this industry, it may allow powerful trademark protections of color combinations that are important to the construction of brand identities for legitimate competitive purposes where such a color scheme is not yet associated with a particular brand.[230] Thus, secondary meaning has renewed importance even for multi-color packaging, especially with regard to simple color combinations, even if those color combinations may not be common.[231] Secondary meaning would allow registration of famous color schemes that, when used by a competitor, may dupe consumers.[232] It would also prevent large companies from gaining trademark protections over color combinations that could be used by young brands offering alternatives to a larger company's products.[233]

C. The Importance of Secondary Meaning for Color in the Fashion Industry Extends Beyond Product Design

A secondary meaning requirement for simple color schemes on packaging in the fashion industry preemptively allows USPTO examining attorneys to avoid making inquiries into functionality and ornamentation that could lead

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[227] *See* Ridgway & Meyers, *supra* note 114 (for more information about how consumers perceive colors and logos for branding and using online survey results to conclude that fashion brands should use colors that symbolize personality traits that they want their brand to convey).

[228] *See* Hewitt, *supra* note 139 (discussing importance of social media branding in cosmetics); Mull, *supra* note 145.

[229] *Wal-Mart*, 529 U.S. at 213.

[230] *See* Christian Louboutin, S.A. v. Yves Saint Laurent Am. Holding, Inc., 696 F.3d 206, 224 (2d Cir. 2012) (discussing that the focus of the aesthetic functionality test (and thus the secondary meaning requirement) centers on balancing hindrances to legitimate competition and confusion of origin).

[231] *See* Berman, *supra* note 57, at 131–32 (discussing issue of secondary meaning and lack of secondary meaning analysis in the context the Federal Circuit's *Owens-Corning* case and *Two Pesos*).

[232] *See* Qualitex Co. v. Jacobson Prods. Co., Inc., 514 U.S. 159, 164 (1995).

[233] *See* Berman, *supra* note 57, at 131.

to a lack of uniformity or absurd results.[234] Although Glossier had to show secondary meaning for registration of its boxes and bubble wrap pouches in past applications to the USPTO, after *Forney*, it could argue that multiple colors like pink, blue, and white in some configuration as applied to a shipping box are inherently distinctive.[235] In *Forney*, the Federal Circuit made a factual determination about the packaging of welding tools and a legal determination that packaging colors can function as a trademark without secondary meaning.[236] Perhaps a consumer in the market for welding products understands the colors on a backing card to indicate the source of a heat gauge.[237] However, in contrast to the welding industry, the Second Circuit explained the importance of color in the fashion industry in *Louboutin* by observing that designers often use colors as a form of expression and that those colors are important for competition in the fashion market.[238] For example, Glossier may use pink, red, and white on its boxes to indicate to consumers that its brand is feminine.[239] With a secondary meaning requirement, until Glossier can prove to the USPTO that consumers invariably identify those colors on a shipping box as belonging to the brand, other e-commerce beauty brands like Glow Recipe or Birchbox should be able to use those color combinations to attract the same consumer base.[240]

The fashion and cosmetic industries are prime examples of why the Federal Circuit needs to narrow its test for multi-color marks in some industries in which a company's brand identity can be signaled through color.[241] Journalist Amanda Mull points out that companies can adopt the aesthetic signals of sustainability by including earth-toned colors and a clean design to attract consumers.[242] Clothing and makeup brands may want to use combinations of sage greens and earth-toned reds to attract consumers that are environmentally conscious, but the *Forney* decision could limit color palettes for packaging used by growing brands seeking to attract that demographic of buyers by

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[234] *Cf.* Bannigan et al., *supra* note 157 (suggesting that *Forney* will have a positive impact on new brands seeking to distinguish themselves).

[235] *See Multi-Color Trademarks May Be Protectable Without Secondary Meaning, Says Federal Circuit in Striking New Decision*, Fashion L. (Apr. 9, 2020), https://www.thefashionlaw.com/multi-color-trademarks-are-protectable-without-secondary-meaning-says-federal-circuit-in-striking-new-decision/ [https://perma.cc/RK8J-WTQR].

[236] *See In re* Forney Indus., Inc., 955 F.3d 940, 945 (Fed. Cir. 2020).

[237] *See id.* at 947–48.

[238] *See* Christian Louboutin, S.A. v. Yves Saint Laurent Am. Holding, Inc., 696 F.3d 206, 223 (2d Cir. 2012).

[239] *See id.*

[240] *See id.*

[241] *See* Mull, *supra* note 145.

[242] *See id.*

allowing registration of such a useful color scheme.[243] In these circumstances, it may prove difficult for a court or a USPTO examining attorney to discern the competitive need for color combinations by future competitors in the fashion and cosmetics industries.[244]

Should a company seek to register a green-to-brown gradient for reusable shopping bags for its haircare products, an examining attorney may not find samples of other haircare companies using this scheme, but they also do not know if these colors will gain importance for the success of other brands.[245] The Supreme Court in *Qualitex* rejected this color depletion theory, however that case did not analyze a color mark in an industry where color almost always plays into a consumer's choice of purchase.[246] The concern raised by the *NutraSweet* court that there is a competitive need for colors in certain industries is reinvigorated with the growth of visual marketing through social platforms because color is used to capture the fleeting attention of a consumer.[247] Thus, requiring a fashion and cosmetic industry-specific analysis for color marks with regards to product packaging will curb the potentially anticompetitive effects of *Forney*.

III. The Federal Circuit Can and Should Adopt an Industry-Specific Rule

Should a multi-color packaging case for a fashion or cosmetics industry trademark come before the Federal Circuit, the court should modify the *Forney* test in light of the importance of color schemes for brands in these industries and recent changes in consumer perception for reusable and sustainable packaging.[248] The proposed test would be comprised of three parts. Courts would first discern how many colors comprise the proposed mark. If the mark has four or more colors, then *Forney* would apply, and the color scheme could be immediately protected for product packaging trade dress. However, if the potential mark has three or fewer colors, then the applicant must prove secondary meaning consistent with *Qualitex*. The Federal Circuit should consider how a finding of inherent distinctiveness for reusable and sustainable product packaging in this industry could lead to friction with the same issues of ornamentation and aesthetic functionality that the Supreme

[243] *See id.*

[244] *See* NutraSweet Co. v. Stadt Corp., 917 F.2d 1024, 1028 (7th Cir. 1990) (rejecting color mark based on competitive need concerns), *abrogated by* Qualitex Co. v. Jacobson Prods. Co., 514 U.S. 159 (1995).

[245] *See id.*

[246] *See Qualitex*, 514 U.S. at 168–69 (analyzing color as applied to a dry cleaning pad).

[247] *See NutraSweet*, 917 F.2d at 1028.

[248] *See* discussion *supra* Sections II.B.1., II.B.2.

Court identified in *Wal-Mart* for product design marks.[249] This proposed test would eliminate such friction for simple color marks while simultaneously acknowledging that intricate multi-color designs may serve a trademark function in line with the Lanham Act.[250] The more colors that a brand incorporates in a scheme, the more likely those colors are to form a logo-like impression and thus signal a brand, like the color scheme in *Forney*.

While *Forney* could be interpreted as a rule governing color in the context of other elements of trade dress, the holding of the court is specific to the element of color in the context of product packaging.[251] Though colors may contribute to the overall look and total appearance of packaging, they should not be afforded an easier path to registration simply because the trademark applicant decided to apply for color registration specific to product packaging trade dress.

Although the Federal Circuit has never done so, it would not take a leap of legal reasoning for the court to create specific rules for these industries, especially given that the court and the USPTO analyze trademark distinctiveness in the context of particular industries.[252] For example, in the USPTO's response to Glossier's initial application for its pink box, the trademark examiner compared Glossier's box to examples of "beauty care" packaging boxes of cosmetics brands.[253] Moreover, in *Two Pesos*, the Court analyzed the distinctiveness of the Mexican restaurant decor in the category of restaurants.[254] Accordingly, the creation of specific rules for the fashion and cosmetics industries makes sense given that assessments of eligibility for trademarks are made in the context of the class of goods, like garments or bags, and the industry in which the goods are sold.[255] At least one court, the United States District Court for the Southern District of New York, believed colors to be so essential in the fashion industry that it attempted to create an industry-specific rule that single colors could not be granted trademark protection for fashion

[249] *See* Wal-Mart Stores, Inc. v. Samara Bros., Inc., 529 U.S. 205, 213, 215 (2000); *see also* discussion *supra* Section I.E.1.

[250] *See* Lanham Act § 45, 15 U.S.C. § 1127 (2018); Nesvold & Pollard, *supra* note 17, at 50.

[251] *See In re* Forney Indus., Inc., 955 F.3d 940, 943 (Fed. Cir. 2020).

[252] *See generally* TMEP ch. 1400 (July 2022) (identifying the USPTO's classification system and describing different classes of goods and services created for registration of trademarks with respect to the industries identified by the applicant).

[253] U.S. Trademark Application Serial No. 88/422,355 (Office Action Outgoing filed Aug. 28, 2019).

[254] *See* Two Pesos, Inc. v. Taco Cabana, Inc., 505 U.S. 763, 765 (1992).

[255] *See generally* TMEP ch. 1400 (July 2022).

items.[256] Although the Second Circuit declined to keep the industry-specific rule, the Federal Circuit may consider creating rules specific to the fashion and cosmetics industries.[257]

In doing so, the Federal Circuit should refine its *Forney* decision in the context of fashion and cosmetics packaging and adopt a rule delimiting the number of colors that are capable of inherent distinctiveness for packaging marks in fashion and cosmetics. The Second Circuit in *Louboutin* made the compelling observation that colors often serve as a tool in the palette of designers when it discussed "aesthetic functionality."[258] In the interest of avoiding aesthetic functionality or registration of ornamental designs characterized as multi-color marks, the Federal Circuit should hold that (1) only color marks containing four or more colors may be capable of being inherently distinctive since four or more colors are more likely to form a design and (2) color marks containing three colors or fewer demand evidence of secondary meaning. The specification of four or more colors does not disturb the *Forney* decision because Forney's mark was comprised of four colors—black, red, orange, and yellow—in a scheme that the Federal Circuit was persuaded could communicate a branded impression on consumers. The companion rule applying to color marks comprised of three or fewer colors acknowledges the functionality concerns for color in the fashion industry and the competitive need for these colors in e-commerce and on social shopping apps while preserving the holding in *Forney*.

There is a significant difference in the number of color combinations a company can create with two or three colors compared to the number of color combinations it can create with four or more. In a palette of nine colors, the standard rainbow of red, orange, yellow, green, blue, and violet, plus the neutral colors brown, black, and white, there are 126 four-color combinations available.[259] By contrast, using the same palette, there are eighty-four three-color combinations, and only thirty-six two-color combinations. Based on the sheer number of combinations available for four-color schemes, registration of four-color packaging marks would be less likely to deprive competitors and new entrants into the fashion and cosmetics industries of useful combinations.

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[256] *See* Christian Louboutin S.A. v. Yves Saint Laurent Am., Inc., 778 F. Supp. 2d 445, 457 (S.D.N.Y. 2011) (denying trademark protection to Louboutin's red sole mark and holding that conferring protection on a mark for fashion items would lead to absurd results), *aff'd in part, rev'd in part and remanded sub nom.* Christian Louboutin, S.A. v. Yves Saint Laurent Am. Holdings, Inc., 696 F.3d 206 (2d Cir. 2012).

[257] *See* Christian Louboutin, S.A. v. Yves Saint Laurent Am. Holdings, Inc., 696 F.3d 206, 223 (2d Cir. 2012).

[258] *See id.*

[259] This calculation comes from the formula $nCr = (n)!/(r!(n–r)!)$ where n represents the number of colors in a palette and r represents the number of colors chosen in the set.

Moreover, competitors and new entrants would have a larger number of alternative combinations to choose from when creating packaging designs.

Conclusion

For the foregoing reasons, the Federal Circuit should adopt a rule that multi-color product packaging marks can only be inherently distinctive when the mark incorporates four or more colors, and require secondary meaning when marks incorporate three or fewer colors. If the mark consists of three or fewer colors, then it is merely descriptive and can only be eligible for placement on the Principal Register upon a showing of acquired meaning to the consumer or when the colors seemingly create a well-defined shape. If the mark consists of more than three colors, then, consistent with *Forney*, the mark may be capable of inherent distinction depending on the arrangement of the colors and application of the *Seabrook* test. This rule provides a workable method for analyzing the eligibility of multi-color product packaging marks in the fashion and cosmetics industries that accounts for concerns of functionality, competitive need, and the rise of reusable components.