

# Content Discriminatory Patents: A Response to Professor Chiang

DAN L. BURK\*

## INTRODUCTION

Almost two decades ago, I argued in an academic publication that patent law was on a collision course with the constitutional guarantees of the First Amendment.<sup>1</sup> At the time, I fully expected this provocation to lead to a robust discussion regarding patent law's intersection with freedom of expression. After all, such a discussion had been going on about patent law's nearest cousin, copyright law, for some time. But virtually nothing more was said on the subject until this year, when I returned to the topic,<sup>2</sup> and was surprised to discover that Professor Chiang has also taken up the topic in Volume 107 of *The Georgetown Law Journal*.<sup>3</sup> I now dare to hope that the contemporaneous publication of two parallel analyses of patent law's compatibility with the First Amendment means that the long-delayed conversation on this topic has at last begun.

Professor Chiang's article is therefore a welcome foray into the field. Much of the analysis in our respective articles appears harmonious, or at least compatible. We agree on most of the "big-picture" issues with regard to patents and constitutionally protected expression; obviously, for example, we agree that patents are not immune from First Amendment scrutiny, and that it is high time that the free speech implications of patent law merited serious analysis.<sup>4</sup> We similarly agree that, despite their origins in the same constitutional clause, copyrights differ sufficiently from patents to make the analysis of patented speech significantly different from the voluminous caselaw and commentary on copyright and the First Amendment.<sup>5</sup> We each conclude that at least some issued patents probably run afoul of constitutional guarantees.<sup>6</sup>

Not surprisingly, we do not agree on everything; where there are two law professors, there must surely be at least three distinct opinions. In this essay responding to Professor Chiang's article, I will focus on an area where

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\* Chancellor's Professor of Law, University of California, Irvine. © 2018, Dan L. Burk. I thank Zackory Burns, Alex Camacho, Seth Davis, Jonathan Glater, Stephen Lee, Jessica Silbey, Jennifer Rothman, and especially Leah Litman for helpful discussion in the formulation of this commentary.

<sup>1</sup> See Dan L. Burk, *Patenting Speech*, 79 TEX. L. REV. 99, 102 (2000).

<sup>2</sup> See Dan L. Burk, *Patents and the First Amendment*, 96 WASH. U. L. REV. 197 (2018).

<sup>3</sup> Tun-Jen Chiang, *Patents and Free Speech*, 107 GEO. L.J. 309 (2019).

<sup>4</sup> Compare Chiang, *supra* note 3, at 313, with Burk, *supra* note 2, at 217.

<sup>5</sup> Compare Chiang, *supra* note 3, at 333–36, with Burk, *supra* note 2, at 226–28.

<sup>6</sup> Compare Chiang, *supra* note 3, at 363, with Burk, *supra* note 2, at 262.

our analyses take significantly different routes toward a key doctrinal conclusion on the question of content discrimination. This jurisprudential metric plays a pivotal role in setting the standards for First Amendment judicial review of governmental regulation, demarcating the boundary between strict scrutiny of state action and more permissive forms of judicial scrutiny. Where a court finds governmental content discrimination, it will be required to treat the discriminatory regulation more stringently and will almost inevitably find the regulation constitutionally impermissible. The presence of content discrimination will thus be a key determinant as to the frequency and severity of conflicts between patent law and the First Amendment.

Professor Chiang has argued that the level of scrutiny applied to patents that implicate expression will be largely determined by the presence of content- or viewpoint-specific language in the patents' claims.<sup>7</sup> He labels patents containing such claim language as easy cases for strict scrutiny, and then argues that patents without such language, but which implicate the means of communication, may be subjected to intermediate scrutiny of the sort applied to regulation of the "time, place, and manner" of speech.<sup>8</sup> His analysis assumes that the patent statute itself is content-neutral.<sup>9</sup> I have asserted in contrast that although the patent statute may not be *viewpoint* discriminatory, it is unquestionably *content* discriminatory, so that heightened levels of constitutional scrutiny may be available more often than Professor Chiang suggests.<sup>10</sup>

In this Response, I will expand on that argument by showing how the current jurisprudence on content discrimination strengthens the case for strict scrutiny of patents. In particular, I will discuss the Supreme Court's recent trend toward finding that commercial regulation involving communication constitutes content discrimination, and the Court's new insistence that such regulation receive heightened levels of scrutiny—at least intermediate scrutiny and, more often, strict scrutiny. Given this trajectory of deregulatory First Amendment doctrine in the Roberts Court, patents that impinge on expression may routinely trigger strict scrutiny due to differential language embedded in the patent statute.

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<sup>7</sup> See Chiang, *supra* note 3, at 313.

<sup>8</sup> *Id.* at 328–30.

<sup>9</sup> *Id.* at 334.

<sup>10</sup> See Burk, *supra* note 2, at 245. As some scholars have noted, the Supreme Court's distinction between content neutrality and viewpoint neutrality has been less than pristine. See, e.g., Robert Post, *Recuperating First Amendment Doctrine*, 47 STAN. L. REV. 1249, 1265 (1995). But as Justice Brennan once succinctly observed, the former involves restrictions on any category of subject matter, whereas the latter involves restrictions on the opinions of particular speakers. See *Perry Educ. Ass'n v. Perry Local Educators' Ass'n*, 460 U.S. 37, 59 (1983) (Brennan, J., dissenting); accord *Burson v. Freedman*, 504 U.S. 191, 197 (1992) ("This Court has held that the First Amendment's hostility to content-based regulation extends not only to a restriction on a particular viewpoint, but also to a prohibition of public discussion of an entire topic.").

Based on the Court's tendency toward deregulatory strict scrutiny, I suggest that expressive patents will be the subject of strict scrutiny far more often than Professor Chiang supposes. This disagreement with Professor Chiang's analysis is, in some sense, a happy one—at least from the standpoint of academic discourse—since, if I am correct, it places his broader contention regarding the conflict between patents and expressive freedom in a stronger position. A less happy result could be the more frequent invalidation of patents as incompatible with guarantees of free speech, but that outcome in turn simply underscores his call for better safeguards against such clashes.

### I. DISTINGUISHING EXPRESSIVE PATENTS

We can begin assessing patents for the content distinctions that may trigger strict scrutiny by considering the question of legal distinctions in general. Laws always distinguish among their targets of action, and laws of “general applicability” do so without running afoul of the First Amendment because the distinctions they draw are not distinctions among types of speech.<sup>11</sup> There should be little question that patent law draws distinctions of this type among inventions. Under the statute, patents are available only for inventions that are novel, useful, non-obvious, and which fall within stated categories of subject matter.<sup>12</sup> Inventions that lack these characteristics are not amenable to patenting and so remain in the public domain, freely available for use without the restrictions of exclusivity that accompany patenting. The statutory requirements for patenting are qualities of general applicability, necessary for any invention to qualify for a patent, and not applicable only to inventions related to speech or expression.

But as Professor Chiang, myself, and others have pointed out, quite a long litany of what I will term *expressive* inventions—that is, inventions that implicate constitutionally protected expression—have become the subject of patenting: methods of advertising, methods of marketing, methods of instruction, methods of composition, and many instances of coded, communicative computer software.<sup>13</sup> Computer software poses a particular problem because it is, as some commentators have pointed out, a text-based mechanism, a machine built out of text.<sup>14</sup> To the extent that software constitutes computer code that can convey ideas to engineers and

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<sup>11</sup> See generally Jeffrey M. Shaman, *Rules of General Applicability*, 10 FIRST AMEND. L. REV. 419, 421 (2012).

<sup>12</sup> See 35 U.S.C. § 101 (2012) (stating patent eligibility requirements of novelty, utility and subject matter); 35 U.S.C. § 103 (2012) (stating patentability requirement of non-obviousness).

<sup>13</sup> See Burk, *supra* note 2, at 202–13; Chiang, *supra* note 3, at 313; John R. Thomas, *Liberty and Property in the Patent Law*, 39 HOUS. L. REV. 569, 588–90 (2002).

<sup>14</sup> Pamela Samuelson et al., *A Manifesto Concerning the Legal Protection of Computer Programs*, 94 COLUM. L. REV. 2308, 2320 (1994).

programmers, it is always expressive, even though it is a component of a machine.<sup>15</sup>

Both Professor Chiang and I note that expression-implicating patents may be divided into two broad categories: those that restrict speech directly, such as a patented method of financial advising, and those that restrict the means of speech, such as a patented printing press.<sup>16</sup> But here our analysis diverges: I argue that the patent statute will frequently provoke strict scrutiny because the requirements for patenting entail statutory distinctions, constituting content-based discrimination when expressive patents are involved. The statute provides patents only for expressive inventions that are novel, useful, and non-obvious—not for any other type of expressive inventions.<sup>17</sup> This distinction has no First Amendment implications until expression is at issue, at which point it becomes a content distinction.

Professor Chiang, to the contrary, focuses on instances of speech-restrictive patents that entail explicit content restrictions expressed in their claims. He argues that patents with such explicitly speech-oriented language present easy cases for First Amendment analysis because content discrimination garners strict constitutional scrutiny, and expressive regulations seldom survive such scrutiny.<sup>18</sup> But he opines that instances of content-restrictive patents are relatively rare and would be analyzed on a patent-by-patent basis, not necessarily implicating the patent statute—and thus the patent system—itsself.<sup>19</sup>

At the same time, because patents that cover conduits of speech typically do not entail content restrictions, Professor Chiang concludes that such patents are content-neutral and thus are subject to the type of test that the Supreme Court has classically articulated for facially neutral time, place, and manner restrictions on speech.<sup>20</sup> Content-neutral regulation can survive constitutional scrutiny if it furthers an important governmental interest, is narrowly tailored to promote that interest, and does not incidentally overburden unrelated speech.<sup>21</sup> Speech regulations sometimes fail such intermediate scrutiny when they cannot be shown to further an important governmental interest, or are poorly tailored to the purpose they are alleged

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<sup>15</sup> See *Junger v. Daley*, 209 F.3d 481, 484 (6th Cir. 2000) (holding that source code is protected by the First Amendment because of its expressive features, despite its simultaneously functional capacity).

<sup>16</sup> Compare Chiang, *supra* note 3, at 318–19, with Burk, *supra* note 2, at 213.

<sup>17</sup> See Burk, *supra* note 2, at 246.

<sup>18</sup> See Chiang, *supra* note 3, at 318–22.

<sup>19</sup> *Id.* at 325–26.

<sup>20</sup> See *Ward v. Rock Against Racism*, 491 U.S. 781, 798–99 (1989) (upholding a city ordinance regulating a rock group's manner of speech by applying intermediate scrutiny).

<sup>21</sup> See *id.*

to serve.<sup>22</sup> But the constitutional mandate of promoting innovation is surely an important governmental interest; and although the patent statute may not be sufficiently narrowly tailored to that interest, it is at least arguably reasonably designed to further innovation. Thus, expressive patents would seem likely to survive intermediate scrutiny a good deal of the time.

## II. CONTENT DISCRIMINATION NOUVEAU

Because Professor Chiang places the majority of expression-related patents into the content-neutral “time, place, and manner” category, his primary concern with conduit-of-speech patents becomes the possibility of overbroad or discriminatory enforcement that results in undue suppression of speech.<sup>23</sup> But the law regarding content neutrality and content regulation has changed rather dramatically in the past several years, and seems to be on a trajectory that would more categorically apply heightened scrutiny to all patents that are linked to expression.

Two jurisprudential trends in particular offer the potential for stricter scrutiny and resultant constitutional infirmity of expressive patenting. The first of these is the Supreme Court’s current penchant for accepting assertions of content discrimination on their face. Rather than following the long history of treating commercial regulation as lying entirely outside the ambit of protected expression, or at most as being subject to rational basis review for incidental regulation of speech, recent Supreme Court cases have tended to classify as content discriminatory any regulation that the affected speaker would *perceive* as content discriminatory.

Perhaps the most famous (or to some, infamous) such opinion has been the *Citizens United* decision in which the Court quickly accepted the assertion that corporate political spending constitutes speech, so that regulation of spending became regulation of expressive content.<sup>24</sup> But this jurisprudential move has become a recurrent feature of the Court’s First Amendment jurisprudence. In *Expressions Hair Design v. Schneiderman*, the Court similarly accepted the assertion that commercial pricing labels constituted protected speech.<sup>25</sup> And in its recent *Masterpiece Cakeshop* decision, the Court appeared to take at face value the assertion that a wedding cake also constituted protected speech.<sup>26</sup> In doing so, the Court

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<sup>22</sup> See, e.g., *McCullen v. Coakley*, 573 U.S. 464, 490–91 (2014) (striking down content-neutral protest buffer zone law for insufficient tailoring); *Watchtower Bible & Tract Soc’y of N.Y., Inc. v. Vill. of Stratton*, 536 U.S. 150, 168 (2002) (holding door-to-door registration ordinance insufficiently tailored and insufficiently connected to a legitimate governmental interest).

<sup>23</sup> See Chiang, *supra* note 3, at 329.

<sup>24</sup> *Citizens United v. FEC*, 558 U.S. 310, 340–43 (2010).

<sup>25</sup> 137 S. Ct. 1144, 1151 (2017).

<sup>26</sup> See *Masterpiece Cakeshop, Ltd. v. Colo. Civil Rights Comm’n*, 138 S. Ct. 1719, 1723 (2018).

acknowledged that few people would think of a wedding cake as a form of protected speech, but opined that finding expression in a cake demonstrates “that the application of constitutional freedoms in new contexts can deepen our understanding of their meaning.”<sup>27</sup>

In such cases, the presence of protected expression is taken as a given, and the Court’s regulatory analysis proceeds from there. A particularly striking example of this subject-matter expansion came in the Court’s *Sorrell v. IMS Health* decision, where the majority concluded that restrictions on the transfer of pharmacy records for marketing constituted a content-based restriction on speech.<sup>28</sup> The Court in this instance equated information with speech, holding that the regulation of the form and content of information transfer constituted a form of censorship.<sup>29</sup> As some commentators have observed, this decision expands the universe of protected speech far beyond any previous category by applying the First Amendment to regulated data, rather than to political or cultural expression that traditionally has been recognized as speaking.<sup>30</sup>

*Sorrell* may be seen as advancing the First Amendment to address information-oriented regulation in the new information-oriented marketplace.<sup>31</sup> But such information transfer is typically the focus of the expressive patents that concern both Professor Chiang and myself, so that *Sorrell* suggests the type of processes typical to expressive patents are now fair game for First Amendment analysis. For that matter, a fundamental governmental purpose behind the patent system itself is to control the disclosure of certain types of information.<sup>32</sup> Moreover, the Court’s deference to the sensibilities of speakers suggests that particular subject matters or activities may be less important than whether any given user of a claimed invention *felt* that she was engaged in speech and *felt* that her speech was burdened by patent exclusivity.

### III. EXPANDING HEIGHTENED SCRUTINY

Alongside the Court’s willingness to presume content discrimination has come its increased willingness to link any distinction in the treatment of expression to a rigorous standard of strict scrutiny. This trend is in part the result of the Roberts Court’s attempt to resolve its own bifurcated jurisprudence on content discrimination in its 2015 *Reed v. Town of Gilbert, Arizona* decision.<sup>33</sup> Prior to 2015, the Court had developed two conflicting

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<sup>27</sup> *Id.*

<sup>28</sup> 564 U.S. 552, 571 (2011).

<sup>29</sup> *See id.* at 579–80.

<sup>30</sup> *See* Jedediah Purdy, *Neoliberal Constitutionalism: Lochnerism for a New Economy*, 77 LAW & CONTEMP. PROBS. 195, 201 (2014).

<sup>31</sup> *Id.*

<sup>32</sup> Dan L. Burk, *Patent Silences*, 69 VAND. L. REV. 1603, 1603 (2016).

<sup>33</sup> 135 S. Ct. 2218 (2015).

and problematic lines of cases addressing the question of content discrimination. In the first line of cases, the Court held that content discrimination was determined by looking to a law's purpose, that is, by whether the law was prompted by discriminatory intent or could be justified on some grounds other than governmental intent to curtail or suppress certain types of speech.<sup>34</sup> In the second line of cases, the Court held instead that that content discrimination was determined based on its effects, that is, by whether speakers were treated differently based on the content of their speech.<sup>35</sup>

After a long period of uncertainty and confusion, the Court finally conjoined these two bodies of caselaw in its *Reed* opinion, in which the Court considered whether a municipal ordinance restricting the posting of certain types of signs violated the First Amendment.<sup>36</sup> The Court announced that the content-neutral or content-discriminatory character of the signage law was to be determined according to a two-part test derived from the disparate lines of cases that had previously defined content discrimination.<sup>37</sup> The new test subordinated intent to effect. In its new amalgamated test for content discrimination, the Court first assessed whether the law discriminated on its face among different kinds of speech.<sup>38</sup> If the law did not discriminate, but appeared to be facially neutral, the Court would then move to the second prong of the test, inquiring whether there was evidence of discriminatory governmental intent.<sup>39</sup> The question of governmental intent would never be reached if content discrimination was found on the first prong.

Thus, any perceived regulatory distinction among types of speech, whether or not intended, and whether or not invidious, now appears to trigger strict scrutiny. Commentators since the *Reed* decision have marveled at the potential sweep of the test, noting that discrimination among types of speech, often for legitimate regulatory reasons, is both extremely common and entirely necessary to routine commercial regulation.<sup>40</sup> As the *Sorrell* decision demonstrates, as the marketplace becomes increasingly information-based, marketplace regulation is likely to distinguish among types of information, and to the extent that information is equated with

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<sup>34</sup> See, e.g., *Bartnicki v. Vopper*, 532 U.S. 514, 526 (2001); *United States v. Playboy Entm't Grp., Inc.*, 529 U.S. 803, 811 (2000); *Boos v. Barry*, 485 U.S. 312, 322 (1988).

<sup>35</sup> See, e.g., *McCullen v. Coakley*, 134 S. Ct. 2518, 2531 (2014); *Burson v. Freeman*, 504 U.S. 191, 197 (1992); *Simon & Schuster, Inc. v. Members of N.Y. State Crime Victims Bd.*, 502 U.S. 105, 116 (1991); *Ark. Writers' Project, Inc. v. Ragland*, 481 U.S. 221, 229–30 (1987).

<sup>36</sup> 135 S. Ct. at 2224–25.

<sup>37</sup> *Id.* at 2227.

<sup>38</sup> *Id.*

<sup>39</sup> *Id.* at 2228.

<sup>40</sup> See Genevieve Lakier, *Reed v. Town of Gilbert, Arizona, and the Rise of the Anticlassificatory First Amendment*, 2016 SUP. CT. REV. 233, 236–37.

speech, regulation will distinguish between categories of speech.<sup>41</sup> Basing the level of scrutiny on the presence of explicit content discrimination greatly expands the number of laws that are likely to face strict scrutiny, although the question of regulatory intent will seldom be reached.

#### IV. DEREGULATORY SCRUTINY

The combination of expanded First Amendment subject matter and enhanced strict scrutiny leads to a third and resultant jurisprudential trend: the deployment of the First Amendment to restrict economic regulation.<sup>42</sup> Until relatively recently, commercial transactions were understood to lie almost entirely outside the ambit of the First Amendment, and regulation of such transactions was reviewed, if at all, at the most permissive levels of constitutional scrutiny. Commercial regulation needed only a rational basis to pass constitutional muster. Commercial speech itself received a diminished degree of First Amendment protection, providing a buffer between economic oversight and expressive freedom.<sup>43</sup>

Nonetheless, the Court has made commercial regulation the particular target of its recent content-discrimination jurisprudence. The expanded coverage of the First Amendment now clearly includes commercial speech, and when the *Reed* test is applied, previously acceptable regulation of such speech is bound to fail. The first prong of the two-part *Reed* test implicates a wide range of seemingly legitimate speech regulation, from workplace harassment to false advertising. And because the *Reed* test apparently allows no distinction among types of speech, it inevitably subjects regulation of commercial speech to strict scrutiny—regulation of commercial speech will, by definition, always distinguish between commercial and non-commercial speech, and so will fail the first prong of the test.<sup>44</sup>

Although this seems the inevitable outcome of the *Reed* analysis, the Court has tended to avoid explicit application of strict scrutiny to market regulations, and has instead somewhat evasively shifted review of commercial speech to “heightened” scrutiny, meaning at least intermediate scrutiny, and in many cases strict scrutiny.<sup>45</sup> This trend was apparent, for example, in the Supreme Court’s recent trademark decision *Matal v. Tam*, in which the Court invalidated provisions of the federal Lanham Act that

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<sup>41</sup> See Leslie Kendrick, *Use Your Words: On the “Speech” in “Freedom of Speech,”* 116 MICH. L. REV. 667, 683–84 (2018); Purdy, *supra* note 30, at 201–02.

<sup>42</sup> See Robert Post & Amanda Shanor, *Adam Smith’s First Amendment*, 128 HARV. L. REV. 165, 166 (2015).

<sup>43</sup> See *Central Hudson Gas & Elec. Corp. v. Public Service Commission of New York*, 447 U.S. 557, 562–63 (1980).

<sup>44</sup> See Amanda Shanor, *The New Lochner*, 2016 WISC. L. REV. 133, 179–80 (2016).

<sup>45</sup> See *Expressions Hair Design v. Schneiderman*, 137 S. Ct. 1144, 1151–52 (2017) (holding that the regulation of surcharge pricing was a regulation of speech).

prohibited registration of trademarks that disparage persons or groups of persons.<sup>46</sup> A plurality of the Court declined to determine whether strict or intermediate scrutiny should be applied, stating that the issue need not be reached because the statute's content discrimination failed even intermediate scrutiny.<sup>47</sup> A concurring plurality was more assertive, and would have applied strict scrutiny due to the statute's differential treatment of disfavored expression.<sup>48</sup>

Following the lead of the Supreme Court, a wave of deregulatory judicial opinions from lower courts has begun accepting the First Amendment as the basis for invalidating a variety of commercial regulation involving differentiation among types of speech.<sup>49</sup> Some commentators have seen in this trend an analogy to the long-discredited *Lochner* doctrine, under which the Supreme Court in the early twentieth century systematically invalidated governmental regulation of business dealings.<sup>50</sup> The First Amendment seems to be emerging as an equally powerful tool for removing regulatory constraints on the marketplace.<sup>51</sup>

Indeed, Amanda Shanor worries that this trend, taken to its logical conclusion, sweeps away nearly any type of governmental regulation because communication or speech is endemic to a vast swath of human social activity.<sup>52</sup> As noted above, in an information economy, economic regulation is more and more likely to encompass information and to focus on informational distinctions. Triggering strict or "heightened" scrutiny for such regulation virtually assures that it will be invalidated, making the First Amendment the new constitutional weapon of choice when targeting governmental interventions into the marketplace.<sup>53</sup> And expressive patents

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<sup>46</sup> 137 S. Ct. 1744, 1757–63 (2017).

<sup>47</sup> *Id.* at 1764.

<sup>48</sup> *Id.* at 1768.

<sup>49</sup> *See, e.g.,* Dana's R.R. Supply v. Att'y Gen. of Fla., 807 F.3d 1235, 1251 (11th Cir. 2015) (invalidating the regulation of surcharge pricing as a content-based regulation of speech); Nat'l Assoc. of Mfrs. v. SEC, 800 F.3d 518, 530 (D.C. Cir. 2015) (holding that required product disclosure failed intermediate First Amendment scrutiny); Safelite Grp., Inc. v. Jepsen, 764 F.3d 258, 264–66 (2d Cir. 2014) (holding that required insurance repair disclosure failed intermediate First Amendment scrutiny); Edwards v. District of Columbia, 755 F.3d 996, 998, 1009 (D.C. Cir. 2014) (invalidating ordinance for licensing tour guides).

<sup>50</sup> *See* Charlotte Garden, *The Deregulatory First Amendment at Work*, 51 HARV. C.R.-C.L. L. REV. 323, 323–24 (2016); Leslie Kendrick, *First Amendment Expansionism*, 56 WM. & MARY L. REV. 1199, 1207 (2015); Purdy, *supra* note 30, at 202–03 (2014); Shanor, *supra* note 44, at 135–36; *see also* Thomas B. Colby & Peter J. Smith, *The Return of Lochner*, 100 CORNELL L. REV. 527 (2015) (tracing the liberal decline and conservative resurgence of *Lochnerism*).

<sup>51</sup> *See* Claudia E. Haupt, *Professional Speech and the Content-Neutrality Trap*, 127 YALE L.J. F. 150, 172 (2017).

<sup>52</sup> *See* Shanor, *supra* note 44, at 135; *see also* Post & Shanor, *supra* note 42, at 179.

<sup>53</sup> *See* Kendrick, *supra* note 41, at 669.

may well be among the governmental marketplace interventions targeted by the deregulatory First Amendment.

## V. DEREGULATING PATENTED SPEECH

Patent law is probably not the type of commercial regulation that the Supreme Court intended to place in the cross-hairs of First Amendment deregulation. Patents are intended to restrict access to novel, useful, and non-obvious inventions in order to artificially inflate their price, allowing inventors to recoup whatever investment they have made in developing the patented technology, and so provide an *ex ante* incentive for such investments.<sup>54</sup> Thus, patents are an intentional governmental intervention into the marketplace, designed to cure the potential market failure in private research and development stemming from the public goods problem: technologies are expensive to develop but easy to copy or appropriate once they have been developed.<sup>55</sup> Patent theorists have increasingly come to recognize such governmental intervention as a regulatory system for control of innovation and competition.<sup>56</sup>

Like other forms of economic regulation that now face First Amendment scrutiny, patents that involve information or information transfer may now be swept into the category of heightened scrutiny. This occurs as a matter of statutory function rather than intent. Based on the Supreme Court's current content discrimination doctrine, the determining factor as to whether the patent statute, or for that matter a given patent, is content discriminatory would *not* be whether the government intended to discriminate against certain types of speech. Neither would the determining factor necessarily be a showing that the patent statute, or any given patent, has the effect of suppressing or disfavoring a certain type of speech. The determination of content discrimination instead now rests upon whether the patent statute, or a given patent, on its face *differentiates among types of speech*.<sup>57</sup>

Expressive patents by their nature must distinguish among types of speech—the patent grant always specifies its own limitations, differentiating among products or processes that are or are not within the scope of the patent holder's exclusive rights. Indeed, the patent statute refers

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<sup>54</sup> See Dan L. Burk, *Law and Economics of Intellectual Property: In Search of First Principles*, 8 ANN. REV. L. & SOC. SCI. 397, 402 (2012).

<sup>55</sup> See *id.* at 400–01.

<sup>56</sup> See Mark A. Lemley, *Taking the Regulatory Nature of IP Seriously*, 92 TEX. L. REV. 107, 108 (2014); see also Amy Kapczynski, *Intellectual Property's Leviathan*, 77 L. & CONTEMP. PROBS. 131, 141–42 (2014); Mark A. Lemley, *The Regulatory Turn in IP*, 36 HARV. J. L. & PUB. POL'Y 109, 110 (2013).

<sup>57</sup> See *Reed v. Town of Gilbert*, 135 S. Ct. 2218, 2227 (2015).

to the disclosure of the invention functionally as “the specification.”<sup>58</sup> As Professor Chiang points out, such distinction sometimes occurs by virtue of the patent claims, in which distinguishing language such as “advertisement” or “advocacy” may define the boundaries of the claimed invention.<sup>59</sup> But distinction also necessarily occurs at the level of the patent statute itself, which distinguishes novel from anticipated, obvious from non-obvious, useful from useless. When inventions incorporate speech, the statute will inevitably place them in one of these categories or the other.

If content discrimination for patents relied upon the second prong of the *Reed* test, or on the line of cases that the *Reed* opinion incorporates into its second prong—which inquire whether there was evidence of discriminatory governmental intent—then expressive patents, like other past instances of economic regulation, might escape heightened scrutiny.<sup>60</sup> Certainly, the type of content discrimination found in patents need not rest upon a nefarious or malignant governmental intent. It seems unlikely, and perhaps even completely implausible, that Congress intended patents as ruses to suppress or censor disfavored speech. There is no apparent indication of viewpoint discrimination, much less viewpoint censorship, in the patent statute. Content discrimination in the patent statute, though undoubtedly present, appears to be oriented toward the technical characteristics of particular inventions. But when the invention entails expression, the result is that technical discrimination *becomes* expressive content discrimination, and such content becomes subject to the new regime of heightened scrutiny.

## VI. STRICT PATENT SCRUTINY

Professor Chiang prescribes intermediate scrutiny for the majority of expression-related patents, and describes such scrutiny as a significant check on governmental restriction of speech.<sup>61</sup> Past constitutional scholars have disagreed, noting that nearly all laws pass intermediate scrutiny by articulation of a plausibly important governmental interest.<sup>62</sup> Nonetheless, the Court’s new penchant for “heightened scrutiny” now places Professor Chiang’s assessment in the right by invalidating disfavored content-based regulations even under intermediate scrutiny, let alone strict scrutiny.

At the same time, the Supreme Court’s recent First Amendment momentum seems to have passed by Professor Chiang’s expectation that the majority of patents entailing expression should be subject to intermediate scrutiny. The trend in content discrimination cases suggests

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<sup>58</sup> 35 U.S.C. § 112 (2012).

<sup>59</sup> See Chiang, *supra* note 3, at 315–16.

<sup>60</sup> See *supra* note 34 and accompanying text.

<sup>61</sup> *Id.* at 329–330.

<sup>62</sup> See, e.g., Leslie Kendrick, *Content Discrimination Revisited*, 98 VA. L. REV. 231, 238 (2012) (noting that “almost all laws pass intermediate scrutiny”).

that intermediate scrutiny may not be the correct standard to apply to patented conduits of speech, which blend expression with function.<sup>63</sup> If regulatory restriction of activities such as baking a cake or imposing an undisclosed pricing surcharge merit strict scrutiny, the same is surely true for regulatory restrictions on novel and non-obvious methods of advertising or writing.

This likelihood is even more apparent in the paradigm case of software patents. Past judicial assessments of the First Amendment status of computer software have noted the dual nature of computer code: it is on the one hand communicative and can be read by programmers, but it is also active and can configure a machine to engage in a variety of beneficial or harmful behaviors.<sup>64</sup> These courts recognized that the government had a legitimate interest in controlling the latter aspect of software but that such regulation would incidentally also impact the communicative aspect of code.

Courts faced with these hybrid characteristics held that the proper level of review was the version of intermediate scrutiny applied to symbolic speech in *United States v. O'Brien*.<sup>65</sup> In *O'Brien*, the defendant was engaged in the unpopular but highly symbolic act of publicly burning his draft card, a combination of communicative speech and physical action.<sup>66</sup> As the government has some legitimate interest in regulating physical activity in public, but is constitutionally prohibited from suppressing unpopular messages, application of intermediate scrutiny splits the difference.<sup>67</sup> Intermediate scrutiny seemed to offer a similar middle ground between government regulation of software's physical implementation and its constitutionally protected communicative functions.<sup>68</sup>

But the *Reed* test now suggests that this middle ground is unavailable. Recent commercial speech cases raise the level of review from rational basis scrutiny to at least intermediate scrutiny, but the *Reed* decision goes farther, suggesting that any regulatory distinction among types of speech necessarily triggers strict scrutiny.<sup>69</sup> Regulating software's physical implementation or effects necessarily means regulating its expressive content—only by changing the coded expression in the software can you effect the regulation of its output. This in turn suggests that patent regulation involving software will always implicate content regulation, and so will

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<sup>63</sup> See Burk, *supra* note 2, at 213–14 (discussing patented conduits of speech).

<sup>64</sup> *Id.* at 249–50.

<sup>65</sup> 391 U.S. 367 (1968); see *Junger v. Daley*, 209 F.3d 481 (6th Cir. 2000); *Universal City Studios v. Corley*, 273 F.3d 429 (2d Cir. 2001).

<sup>66</sup> 391 U.S. at 369–70.

<sup>67</sup> See *O'Brien*, 391 U.S. at 1680–83.

<sup>68</sup> See *Junger*, 209 F.3d at 485 (applying intermediate scrutiny); *Universal City Studios*, 273 F.3d at 442 (same).

<sup>69</sup> See *supra* notes 36–39 and accompanying text.

always trigger strict scrutiny. Consequently, regulation of software effects seems inevitably to trigger *Reed* strict scrutiny.

#### CONCLUSION

One implication of this intersection of patent and First Amendment jurisprudence is that the Roberts Court's formulation of content discrimination may not necessarily mean "business as usual"—that is to say, that the usual beneficiaries of the deregulatory trend in First Amendment jurisprudence might not always be the sole beneficiaries of this trend. The Supreme Court's increasingly "Lochnerian" deployment of the First Amendment against regulation has been seen as business-friendly jurisprudence in the service of a free market. But when applied in the patent context, the First Amendment jurisprudence of the Roberts Court entails a set of surprising political valences.

Patents are frequently seen as business-friendly, serving to reward investments in technical innovation. However, patents may equally well be business-unfriendly, suppressing competition, imposing litigation and licensing costs, and retarding independent or follow-on innovation. Application of the anti-regulatory First Amendment to expressive patents might frustrate the former, business-friendly view, while vindicating the latter. Thus, in the context of patents, the Court's deregulatory impulse must traverse an ideological landscape far more complex than the simple motives typically attributed currently to either patents or to expansive strict scrutiny.

This should perhaps come as no surprise from the perspective of patent policy—where patent regulation is concerned, some businesses win and other businesses lose. Patents may be business-friendly regulation in their role as rewards for innovation, but may simultaneously be business-unfriendly in their restriction on competition and technological diffusion. Indeed, in its recent patent subject matter cases, the Court has not shied away from stripping entire business sectors of their favored patent franchises, paring away gene patents from biotechnology firms in the *Myriad* case,<sup>70</sup> or radically restricting software patents in the *Alice Corp.* decision.<sup>71</sup> Stripping away the patent subsidy may not be a question as to whether businesses benefit, but rather as to whether *which* businesses benefit. And under the jurisprudence of the Roberts Court, that outcome may be available far more often than previously supposed.

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<sup>70</sup> *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 596 (2013) (holding that genomic DNA sequences are not patentable subject matter).

<sup>71</sup> *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208, 221 (2014) (holding that abstract methods implemented in software require an extra "inventive concept" to constitute patentable subject matter).