

Three Cheers for Trekonomics: The Future of Copyright Doctrine according to Star Athletica and Star Trek

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NOTE

THREE CHEERS FOR *TREKONOMICS*: THE FUTURE OF COPYRIGHT DOCTRINE ACCORDING TO *STAR ATHLETICA* AND *STAR TREK*

*Philip M. Duclos**

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*“We cannot recognize copyright as a game of chess in
which the public can be checkmated.”¹*

* Walla Walla University, B.A., History & Religion, 2014; Cornell Law School, J.D./LL.M. candidate, 2018; Managing Editor, *Cornell Journal of Law and Public Policy*, Volume 27. I would like to thank David Katz for the encouragement to write about *Star Athletica* and *Star Trek*, Professor Elizabeth Anker for inspiring me to write about science fiction and the law, Professor Oskar Liivak for his feedback early in the writing process, and the members of the *Journal of Law and Public Policy* for their advice and editorial assistance.

¹ *Morrissey v. Procter & Gamble Co.*, 379 F.2d 675, 679 (1st Cir. 1967).

INTRODUCTION

Ralph Offenhouse, a twentieth-century financier, finds himself awakened after three hundred years adrift in space, cryogenically frozen after his death due to a heart condition which has become treatable. While he was in limbo, a lot changed, both technologically and socially: space travel is now routine and money is a thing of the past. Captain Jean-Luc Picard of the *USS Enterprise* sums up the changes that have occurred. “People are no longer obsessed with the accumulation of things. We’ve eliminated hunger. Want. The need for possessions. We’ve grown out of our infancy.”² Offenhouse, offended, retorts, “You’ve got it all wrong. It’s never been about possessions. It’s been about power . . . to control your life, your destiny.”³ Later in the episode, Offenhouse bemoans his circumstances further: “There’s no trace of my money. My office is gone. What will I do? How will I live?”⁴ Captain Picard grasps Offenhouse’s concerns, and says, “This is the twenty-fourth century. Material needs no longer exist. . . . The challenge, Mr. Offenhouse, is to improve yourself. To enrich yourself. Enjoy it.”⁵ This challenge sums up much of what *Star Trek* is about and calls its fans to the project of enrichment—not only personal improvement but also social and technological. Even in the twenty-fourth century, Captain Picard joyfully remarks at the end of the episode, “There’s still much to do. Still much to learn.”⁶ This learning process should not only extend to science fiction writers but should also inform the legal processes and frameworks as courts and legislatures address them in today’s world.

The legal framework of intellectual property law is constantly in tension with itself.⁷ On the one hand, intellectual property law creates

² *Star Trek: The Next Generation: The Neutral Zone* (Paramount Domestic Television May 16, 1988).

³ *Id.*

⁴ *Id.*

⁵ *Id.*

⁶ *Id.*

⁷ Both intellectual property law and antitrust law seek to encourage competition, but do so using very different means. See Dina Kallay, *A Framework for Analysis of the Antitrust–Intellectual Property Intersection*, in *THE LAW AND ECONOMICS OF ANTITRUST AND INTELLECTUAL PROPERTY: AN AUSTRIAN APPROACH I* (2004) (discussing the overlapping and competing goals of copyright law and antitrust law and comparing different economic approaches to each). Antitrust law seeks to prevent monopolization to avoid “excessive price, misallocation of resources, and loss of dynamic efficiency.” Harvey J. Goldschmid, *Comment on Herbert Hovenkamp and the Dominant Firm: The Chicago School Has Made Us Too Cautious About False Positives and the Use of Section 2 of the Sherman Act*, in *HOW THE CHICAGO SCHOOL OVERSHOT THE MARK: THE EFFECT OF CONSERVATIVE ECONOMIC ANALYSIS ON U.S. ANTITRUST* 123, 125 (Robert Pitofsky ed., 2008). Nevertheless, intellectual property protects monopolies, for limited times, to create competition. See *infra* notes 8–9 and accompanying text.

monopolies⁸ in order “[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 On the other hand, monopolization reduces competition, reducing incentives to innovate.¹⁰ Although trademark law¹¹ and patent law¹² address these tensions adequately, copyright law proves more troubling.¹³ For example, the question of whether copyright protection can extend to the “stripes, chevrons, zigzags, and color blocks”¹⁴ on cheerleader uniforms implicates concerns about innovation because allowing copyright protection prevents unlicensed use of the copyrighted features. Furthermore, modern society, especially in technologically-advanced countries, is approaching a post-scarcity economy in which goods and services are available at drastically lower costs than before.¹⁵ This Note discusses the competing public policy goals of copyright law in light of the Supreme Court’s ruling in *Star Athletica, LLC v. Varsity Brands, Inc.* and considers the implications of *Star Trek*, a utopian¹⁶ science fiction series in which Replicator technology,¹⁷ and other factors, create a post-scarcity

⁸ See, e.g., Steven Wilf, *The Making of the Post-War Paradigm in American Intellectual Property Law*, 31 COLUM. J.L. & ARTS 139, 141 (2008) (discussing the tension between anti-trust law and intellectual property law in the post-World War II era).

⁹ U.S. CONST. art. I, § 8, cl. 8.

¹⁰ See *Diamond v. Chakrabarty*, 447 U.S. 303, 319 (1980) (Brennan, J., dissenting) (“The patent laws attempt to reconcile this Nation’s deep-seated antipathy to monopolies with the need to encourage progress.”); Asher Hodes, Note, *Diagnosing Patentable Subject Matter*, 26 BERKELEY TECH. L.J. 225, 251 (2011) (“One justification for patents is that they provide an incentive for expensive research, development, and commercialization by providing assurance that inventors or their licensees will have exclusive rights to market inventions.”).

¹¹ See, e.g., Nicholas S. Economides, *The Economics of Trademarks*, 78 TRADEMARK REP. 523 (1988) (discussing the rationale behind and the benefits of trademark law); P. Sean Morris, *The Economics of Distinctiveness: The Road to Monopolization in Trade Mark Law*, 33 LOY. L.A. INT’L & COMP. L. REV. 321 (2011) (discussing trademarks as monopolies in an international context).

¹² See generally Oren Bracha, *The Commodification of Patents 1600–1836: How Patents Became Rights and Why We Should Care*, 38 LOY. L.A. L. REV. 177 (2004) (exploring the history of patent law and patents as commodities).

¹³ See Peter S. Menell, *Property, Intellectual Property, and Social Justice: Mapping the Next Frontier*, 5 BRIGHAM-KANNER PROP. RTS. CONF. J. 147, 160, 175 (2016); L. Ray Patterson, *Free Speech, Copyright, and Fair Use*, 40 VAND. L. REV. 1, 53–63 (1987); see also Jon M. Garon, *Media & Monopoly in the Information Age: Slowing the Convergence at the Marketplace of Ideas*, 17 CARDOZO ARTS & ENT. L.J. 491, 493–94 (1999) (discussing problems copyright law faces with the emergence of modern technology).

¹⁴ *Varsity Brands, Inc. v. Star Athletica, LLC*, 799 F.3d 468, 470 (6th Cir. 2015).

¹⁵ See *infra* Section II.A.

¹⁶ Most science fiction is closer to dystopian than utopian. *Star Trek* is distinct from classic science fiction, such as *Star Wars*, in which the society is unequal. “Some have the means to avail themselves of robots, clones, and slaves. Others must make do and scrape by with the help of their immediate families and nephews. . . . In its world building, *Star Wars* is looking backward, so to speak.” MANU SAADIA, TREKONOMICS 138 (2016).

¹⁷ Replicators in the *Star Trek* universe work by rearranging subatomic particles into molecules and molecules into the user-requested product. See *id.* at 72–76; *infra* Section

economy.¹⁸ In this context, there are several important questions to consider: how should the American intellectual property regime prepare for a technologically-driven post-scarcity reality? What are the best ways to encourage innovation? And how can law and public policy augment the emerging benefits of a post-scarcity economy?

The positive implications of copyright protection stem from its ability to provide incentives to innovate, because innovation fosters economic growth¹⁹ and improves social welfare²⁰ by encouraging new artistic endeavors.²¹ Nevertheless, copyright law also has negative implications: it may stunt economic growth because using copyrighted materials may require licensing, increasing the cost of derivative works.²² Additionally, copyright law limits the accessibility of artistic expression and may, therefore, lower social welfare.²³ This Note argues—as the

II.A.2. The replicator first appeared in *Star Trek: The Next Generation: Code of Honor* (Paramount Domestic Television Oct. 12, 1987). Nevertheless, the ideas behind replicator technology dates back to GEORGE O. SMITH, *Special Delivery*, ASTOUNDING SCIENCE FICTION, Mar. 1945, reprinted in THE COMPLETE VENUS EQUILATERAL 282, 296–98 (1976); see Matthew Hollow, *Confronting a New 'Era of Duplication'? 3D Printing, Replicating Technology, and the Search for Authenticity in George O. Smith's Venus Equilateral Series* (May 2013), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2333496; see also Gene Roddenberry, *Star Trek: The Next Generation Writers/Director's Guide* 36 (Mar. 23, 1987), http://leethomson.myzen.co.uk/Star_Trek/2_The_Next_Generation/Star_Trek_-_The_Next_Generation_Bible.pdf.

¹⁸ See SAADIA, *supra* note 11, at 84; *infra* Section II.A.1.

¹⁹ See, e.g., *Verizon Commc'ns, Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398, 407 (2004) (“The opportunity to charge monopoly prices—at least for a short period—is what attracts ‘business acumen’ in the first place; it induces risk taking that produces innovation and economic growth. To safeguard the incentive to innovate, the possession of monopoly power will not be found unlawful unless it is accompanied by an element of anticompetitive conduct.”).

²⁰ See, e.g., *Lotus Dev. Corp. v. Paperback Software Int'l*, 740 F. Supp. 37, 52 (D. Mass. 1990) (“Copyright monopolies are not granted for the purpose of rewarding authors. Rather, Congress has granted copyright monopolies to serve the public welfare by encouraging authors (broadly defined) to generate new ideas and disclose them to the public, being free to do so in any uniquely expressed way they may choose.”).

²¹ See Barton Beebe, *Intellectual Property Law and the Sumptuary Code*, 123 HARV. L. REV. 809, 830 (2010) (“[I]ntellectual property law is the one body of law that does what we have always relied on nature to do, which is to enforce the scarcity of individual forms of distinction.”); Mark A. Lemley, *IP in a World Without Scarcity*, 90 N.Y.U. L. REV. 460, 462 (2015); Menell, *supra* note 13, at 158 (“Intellectual property rules create artificial scarcity as a means to encourage the development of inventions and creative expression.”).

²² See, e.g., *Golan v. Holder*, 565 U.S. 302, 346 (2012) (Breyer, J., dissenting) (“[T]he need to secure copying permission sometimes imposes administrative costs that make it difficult for potential users of a copyrighted work to find its owner and strike a bargain.”).

²³ This is not to suggest that intellectual property protection and human development via artistic expression are mutually exclusive. See generally Patrick Kabanda, *Work as Art: Links Between Creative Work and Human Development*, UNITED NATIONS DEV. PROGRAMME: HUM. DEV. REP. OFF. BACKGROUND PAPER (2015), http://hdr.undp.org/sites/default/files/kabanda_hdr_2015_final.pdf (arguing that artistic endeavors have enhanced human development and arguing for intellectual property protection to stop exploitation of indigenous artistic output).

plaintiffs in *Star Athletica* argued²⁴—that copyright protection should not extend to the “stripes, chevrons, zigzags, and color blocks”²⁵ on cheerleader uniforms. Limiting copyright protection in this case would not have stifled otherwise copyrightable innovations, while extending copyright protection allows designers a broader range of designs they can copyright and therefore prohibit others from using.²⁶

Part I of this Note examines the constitutional and public policy goals of copyright law, the expansion of copyright law, and potential legal developments of copyright law. Part II considers the public policy implications of our current technological progression toward a post-scarcity economy in light of the legal and social frameworks in *Star Trek*. Part III highlights the Supreme Court’s decision in *Star Athletica, LLC v. Varsity Brands, Inc.*, considering copyright law and its policy goals of progression and innovation. Part IV postulates that, in light of economic and social developments, Congress and the courts can best incentivize innovation by limiting the areas that are protected by copyright law to traditional works of authorship, such as art and literature.

I. CONSTITUTIONAL AND PUBLIC POLICY GOALS OF COPYRIGHT

The constitutional justification for copyright protection, and, therefore, the imperative for intellectual property law, is to encourage innovation.²⁷ Intellectual property law originated partly on the belief that granting limited monopolies for limited times would incentivize people

²⁴ See Brief for Appellant at 46–49, *Star Athletica, LLC v. Varsity Brands, Inc.*, No. 15-866, 2016 WL 98761 (2016).

²⁵ *Varsity Brands, Inc. v. Star Athletica, LLC*, 799 F.3d 468, 470 (6th Cir. 2015).

²⁶ See Beebe, *supra* note 21, at 815 (“[I]f technology has stripped nature of its ability to enforce rarity, then culture must fill that role.”). Consider the interesting case of knitting patterns, for which communities have developed norms in the absence of workable intellectual property doctrine for stitching designs. See Kirsty Robertson, *No One Would Murder for a Pattern: Crafting IP in Online Knitting Communities*, in *PUTTING INTELLECTUAL PROPERTY IN ITS PLACE* 41 (Laura J. Murray, S. Tina Piper & Kirsty Robertson eds., 2014). Note also the intellectual property altruism present in the celebrity cake-decorating community. “Remembering a fantastic cake I made is awesome and the chef that re-created it for @POTUS Trump did a fantastic job. Group hug, y’all. ????” Duff Goldman (@duffgoldman), TWITTER (Jan. 21, 2017, 9:30 AM), <https://twitter.com/duffgoldman/status/822858891939590145>.

²⁷ “The dominant view is that the progress portion of the IP clause is merely an introductory preamble that fails to limit Congress’s intellectual property power,” instead of creating a standard for measuring intellectual property laws. Simone A. Rose, *The Supreme Court and Patents: Moving Toward a Postmodern Vision of “Progress”?*, 23 *FORDHAM INTELL. PROP. MEDIA & ENT. L.J.* 1197, 1200 (2013) (discussing positively the view that the intellectual property clause is intended to be a limitation on intellectual property law). Nevertheless, the Copyright Act is written in such a manner that, even if the “promote Progress” imperative is *not* a limiting principle, the Copyright Act itself promotes progress. For example, the Copyright Act allows “fair use” to encourage progress. See 17 U.S.C. § 107.

to create new artistic works.²⁸ Modern research is challenging this assumption,²⁹ but corporate empires have built up around the profits from intellectual property and have fought to increase the strength and length of copyright protection.³⁰ Current copyright law seeks to balance the innovative imperatives with the goals of maintaining “broad public availability of literature, music, and the other arts,”³¹ but copyright law has not always worked to serve both of these goals simultaneously.

A. *Origins and Expansion of Copyright Law*

The original impetus behind the intellectual property clause was economic:³² “the conviction that encouragement of individual effort by personal gain is the best way to advance public welfare[.]”³³ The copyright clause was controversial from the beginning: Thomas Jefferson was critical of the intellectual property clause, writing to James Madison that he would have left the clause out of the Constitution.³⁴ Furthermore, Margaret Chon has suggested that the economic incentives inherent in the copyright clause are second only to the higher purpose of “Progress,” which “nurtures a commons of knowledge.”³⁵ Despite these fundamental concerns, the doctrine has expanded significantly in the last 200 years.

²⁸ This works both ways. An author will create to acquire a limited monopoly, but an existing monopoly in a product may also incentivize authors to create new art. For example, Donkey Kong, Mario, and *Star Wars* were all created because their authors were denied the right to create derivative works. See Joseph P. Fishman, *Creating Around Copyright*, 128 HARV. L. REV. 1333, 1336 (2015).

²⁹ See Christopher Buccafusco et al., *Experimental Tests of Intellectual Property Laws' Creativity Thresholds*, 92 TEX. L. REV. 1921, 1922 (2014) (“Although some research indicates that providing incentives to act creatively has the expected effect of increasing creativity, other research suggests that offering certain types of incentives can undermine creative behavior.”).

³⁰ See Steve Schlackman, *How Mickey Mouse Keeps Changing Copyright Law*, ART L.J. (Feb. 15, 2014), <http://artlawjournal.com/mickey-mouse-keeps-changing-copyright-law>.

³¹ *Twentieth Century Music Corp. v. Aiken*, 422 U.S. 151, 156 (1975) (“The limited scope of the copyright holder’s statutory monopoly, like the limited copyright duration required by the Constitution, reflects a balance of competing claims upon the public interest: Creative work is to be encouraged and rewarded, but private motivation must ultimately serve the cause of promoting broad public availability of literature, music, and the other arts. The immediate effect of our copyright law is to secure a fair return for an ‘author’s’ creative labor. But the ultimate aim is, by this incentive, to stimulate artistic creativity for the public good.”).

³² See U.S. CONST. art. I, § 8, cl. 8.

³³ *Eldred v. Ashcroft*, 537 U.S. 186, 214 (2003) (quoting *Mazer v. Stein*, 347 U.S. 201, 219 (1954), *superseded by statute*, 1976 Copyright Act, 17 U.S.C. § 101 (2016)); see also *Dr. Seuss Enters., L.P. v. Penguin Book USA, Inc.*, 924 F. Supp. 1559, 1568 (S.D. Cal. 1996) (“[T]he court must give primary consideration to the Framers’ belief that copyright monopolies increase welfare by encouraging creators of new expressive works.”).

³⁴ See Letter from Thomas Jefferson to James Madison (July 31, 1788), <http://founders.archives.gov/?q=volume%3AJefferson-01-13&s=1511311112&r=338> (“[T]he benefit even of limited monopolies is too doubtful to be opposed to that of their general suppression.”).

³⁵ Margaret Chon, *Postmodern “Progress”: Reconsidering the Copyright and Patent Power*, 43 DEPAUL L. REV. 97, 104 (1993).

Initially, in the United States, the Copyright Act of 1790 provided protection only for books, maps, and charts for up to twenty-eight years.³⁶ The Act required registration and notice in local newspapers.³⁷ Nevertheless, “[b]y the end of the nineteenth century, copyright protection extended to prints, musical compositions, dramatic works, photographs, graphic works, and sculpture.”³⁸ The Copyright Act was amended again in 1909 to include “all writings” and to expand protection to two terms of 28 years, dependent on registration and renewal.³⁹ In 1976, Congress again expanded the scope and duration of copyright protection. The language regarding the scope of copyrightable material changed to the modern phrasing, “fixed in a tangible medium of expression,”⁴⁰ which includes non-published works. Additionally, Congress extended the length “of copyright protection to the life of the author plus 50 years, or 75 years in the case of anonymous works, pseudonymous [*sic*] works, and works made for hire.”⁴¹ In 1980, Congress added protection for computer programs, and in 1998, it added 20 years to the duration of copyright protection.⁴² Under the current regime, a vast variety of works are eligible for copyright protection, and for long durations. This is drastically different from the initial copyright protection that Congress provided, and while there are valid arguments both for and against expanded protection, it is important to note the modern degree of protection.

Some commentators are concerned that Congress has expanded copyright protection not in order to encourage progress, but in order to fulfill the wishes of lobbyists. For example, the Sonny Bono Copyright Term Extension Act of 1998 passed only after the heirs of various composers, the Walt Disney Corporation, and others lobbied to extend copyright protection for an additional 20 years.⁴³ Although lobbyists for large corporations argue for the expansion of copyright protection, experts such as Professors Kal Raustiala and Christopher Sprigman argue that, at least in the area of fashion, the absence of copyright protection actually encourages innovation, because content originators constantly have to create new fashions to stay ahead of those who copy their trends.⁴⁴

³⁶ See MARK A. LEMLEY, PETER S. MENELL, & ROBERT P. MERGES, *INTELLECTUAL PROPERTY IN THE NEW TECHNOLOGICAL AGE*: 2016, IV-6 (2016).

³⁷ *Id.*

³⁸ *Id.*

³⁹ See *id.* at 7.

⁴⁰ 17 U.S.C. § 102 (2016).

⁴¹ Lemley et al., *supra* note 36, at 7.

⁴² *Id.*, at 8.

⁴³ *Id.*, at 119.

⁴⁴ See Kal Raustiala & Christopher Sprigman, *The Piracy Paradox: Innovation and Intellectual Property in Fashion Design*, 92 VA. L. REV. 1687, 1691 (2006); see also KAL RAUSTIALA & CHRISTOPHER SPRIGMAN, *THE KNOCKOFF ECONOMY: HOW IMITATION SPARKS INNOVATION* (2012).

B. Intellectual Property Protection of Fashion Designs

Copyright and trademark law have historically provided little protection for the fashion process, encouraging both design infringement and the creation of new designs at a rapid pace. In *Wal-Mart Stores, Inc. v. Samara Bros.*,⁴⁵ Samara Brothers brought an action against Walmart for trademark infringement⁴⁶ under the Lanham Act.⁴⁷ The Supreme Court denied trademark protection to Samara Brothers because their design was unregistered and had not acquired secondary meaning.⁴⁸ Courts have further limited intellectual property protection for fashion designs by preventing copyright law from covering “useful articles” that do not have artistically or aesthetically separable features.⁴⁹ Although these results might not comport with notions of fundamental fairness, the fashion process is driven by the cycle of design, production, and infringement.⁵⁰ This compulsion suggests that the *absence* of intellectual property protection encourages innovation in fashion at a much faster rate than would be expected under a more restrictive copyright scheme.⁵¹ “Copying creates trends, and trends are what sell fashion. . . . [T]he cycle is accelerated by the freedom to copy.”⁵² Professors Raustiala and Sprigman suggest that the absence of copyright protection is necessary to maintain

⁴⁵ 529 U.S. 205 (2000).

⁴⁶ Samara Brothers also sued on the grounds of copyright infringement, but all parties except Walmart settled before trial, and the Supreme Court only granted certiorari on the question of trademark infringement. Walmart had directed its supplier, Judy-Philippine, Inc., to base children’s clothing designs on Samara Brothers’ designs, and Judy-Philippine directly copied dress designs from sixteen of Samara’s garments. *See id.* at 207–08. *See also* Beebe, *supra* note 21, at 843 (noting that trademark law is not appropriate for fashion design: “The words of the Lanham Act should not be stretched to cover matters that are typically of no consequence to purchasers.”).

⁴⁷ Pub. L. 79-489, 60 Stat. 427 (2017) (codified in various sections of 15 U.S.C.).

⁴⁸ *See* 529 U.S. at 216.

⁴⁹ *See, e.g.*, *Carol Barnhart Inc. v. Econ. Cover Corp.*, 773 F.2d 411, 414 (2d Cir. 1985). In *Chosun Int’l v. Chrisha Creations, Ltd.*, 413 F.3d 324, 329–30 (2d Cir. 2005), the circuit court vacated the district court’s grant of Chrisha Creations’ Fed. R. Civ. Proc. 12(b)(6) motion to dismiss for failure to state a claim and remanded for the district court to determine physical and conceptual separability of Chosun’s Halloween costumes.

⁵⁰ *See, e.g.*, Daryl Wander, Note, *Trendsetting: Emerging Opportunities for the Legal Protection of Fashion Designs*, 42 RUTGERS L.J. 247, 247–48 (2010).

⁵¹ *See* Raustiala & Sprigman, *supra* note 44. Professor Beebe discusses another justification for allowing copying: the “ideology of the copy.” *See* Beebe, *supra* note 21, at 840–41 (“For proponents of progressive intellectual property law, the concern that further copying of the work might damage the work by vitiating its aura of uniqueness is, in their view, as frivolous as the indigenous belief that the rampant copying of their sacred expressions may deplete those expressions of their magical powers.”).

⁵² Kal Raustiala & Christopher Jon Sprigman, *Why Imitation Is the Sincerest Form of Fashion*, N.Y. TIMES: OPINION (Aug. 12, 2010), <http://www.nytimes.com/2010/08/13/opinion/13raustiala.html> (criticizing the Innovative Design Protection and Privacy Prevention Act, H.R. 2511, 112th Cong. (2011) (never enacted)).

this creative cycle.⁵³ On the opposite side of the spectrum, Professor Beebe argues that the fashion process has accelerated problematically because of the ease with which infringers can copy fashion designs: “we can no longer rely on the materiality of material forms of distinction to moderate the velocity of the fashion process.”⁵⁴ Perhaps Professor Beebe is correct; however, the creative momentum fashion design has gained from an absence of copyright protection suggests that intellectual property laws could be revised to further promote progress and better align with the constitutional goals which lie at the heart of intellectual property law.

C. *What’s the Problem with Intellectual Property Laws?*

Perhaps the fundamental flaw with the current intellectual property regime is that it has become not a way to promote progress, but a way to maintain the status quo, “our system of consumption-based social distinction and the social structures and norms based upon it.”⁵⁵ This problem is perhaps most pressing in patent law, where “the over-patenting of basic technology creates the risk that downstream research and development will be impeded,”⁵⁶ which is contrary to the express goal of the intellectual property clause. Simone Rose cites this problem as resulting from the “failure to ‘humanize’ technology.”⁵⁷ By comparison, these dangers are less pressing in copyright law. The humanities, the areas that are most affected by copyright laws, do not relate to life and death in the same way that patent law does; however, it is still important to provide copyright protection in a meaningful way. The concepts of separability, both physical and conceptual, have provided a framework in the past that assists courts in determining which elements of a useful article, such as fashion designs or lamps, are copyrightable and which are not. Paul Goldstein suggests a revision of the separability doctrine for determining copyrightability that would increase protection for copyrightable materials while not extending protection where it is not due: “[A] pictorial,

⁵³ *Id.* (“With copyright protection fashion prices would rise, and the creative cycle would slow down.”).

⁵⁴ Beebe, *supra* note 21, at 818–19.

⁵⁵ *Id.* at 814.

⁵⁶ Rose, *supra* note 27, at 1221 (citation omitted).

⁵⁷ *Id.* (citation omitted). Rose argues that this impulse is problematic because “individuals can be priced out of access to patented products/processes, such as pharmaceuticals and genetic testing,” something that has upset consumers and even Congress in the past two years with the sharp increases in the prices of Daraprim and the EpiPen. See Andrew Pollack, *Drug Goes from \$13.50 a Tablet to \$750, Overnight*, N.Y. TIMES (Sept. 20, 2015), <http://www.nytimes.com/2015/09/21/business/a-huge-overnight-increase-in-a-drugs-price-raises-protects.html>; Chris Woodyard & Mary Jo Layton, *Massive Price Increases on EpiPens Raise Alarms*, USA TODAY (Aug. 25, 2016), <http://www.usatoday.com/story/money/business/2016/08/22/two-senators-urge-scrutiny-epipen-price-boost/89129620>.

graphic, or sculptural feature incorporated in the design of a useful article is conceptually separable if it can stand on its own as a work of art traditionally conceived, and if the useful article in which it is embodied would be equally useful without it.”⁵⁸ The courts could, in cases like *Star Athletica*, continue to give effect to Congress’ literal words; however, some judicial activism may be appropriate, as well. Furthermore, Congress should recognize both the courts’ unwillingness to engage in significant activism and the need to create a progressive intellectual property regime to ensure the welfare of Americans for the future.

There are two directions copyright law—and intellectual property law generally—could take in the future. The first possibility is a near-unlimited expansion of copyright law, as some scholars have suggested will be the inevitable result⁵⁹ of extensions to the Sonny Bono Copyright Term Extension Act.⁶⁰ The second possibility is a gradual reduction of copyright protection in recognition of the developing post-scarcity reality.⁶¹ Professor Beebe argues that post-scarcity is far in the future but that “a post-rarity society is already upon us.”⁶² This Note recognizes that post-rarity and post-scarcity are on the same continuum and that public policy must consider the future as a whole, not simply the immediate implications of our legal system.

II. PUBLIC POLICY IN A POST-SCARCITY SOCIETY

Although post-scarcity as portrayed in *Star Trek* remains science fiction—for the most part—the beauty of the law lies in its ability to create a legal framework for the future, not the past. This is especially apparent in the United States, which still relies on a 230-year-old Constitution, and which has construed that Constitution to address problems the Founders could not have foreseen. The legislatures and courts must prepare for the future by progressively using the Constitution’s framework

⁵⁸ PAUL GOLDSTEIN, COPYRIGHT § 2.5.3.1 (1989).

⁵⁹ See Craig W. Dallan, *The Problem with Congress and Copyright Law: Forgetting the Past and Ignoring the Public Interest*, 44 SANTA CLARA L. REV. 365, 455 (2004) (“Almost certainly, those who hold the property right view will continue their efforts to achieve perpetual copyright.”).

⁶⁰ Pub. L. No. 105–298, 112 Stat. 2827–2828 (codified as amended in scattered sections of 17 U.S.C.).

⁶¹ It is unlikely that copyright law will ever fade entirely, and it is proper that intellectual property protections should exist. In the copyright realm, for example, some works are so expensive to create that no reasonable person or business would undertake to create them for free or even for low profits. See, e.g., Lemley, *supra* note 21, at 496 (citation omitted) (“No amount of creative fire will drive someone who doesn’t have hundreds of millions of dollars to make Peter Jackson’s *Lord of the Rings* Trilogy. They need corporate backing, and the corporate backers need a revenue stream.”).

⁶² Beebe, *supra* note 21, at 815 (citation omitted).

to create law and policy, which are able to address yet unrealized concepts, such as post-scarcity.

A. *Current Trends Toward and Policy Implications of Post-Scarcity*

Modern society is moving ever closer to a post-scarcity society: goods are becoming cheaper and easier to procure⁶³ and services are becoming more specialized in order to survive in a world where the Internet offers a wide range of guidance⁶⁴—both in depth and in accuracy⁶⁵—that modern consumers can use to satisfy many of their needs.⁶⁶ As goods and services become more readily available, both through creation of free goods⁶⁷ and through illegal copying⁶⁸ of intellectual property, “intellectual property law has been embraced as a last redoubt for a social system so much of whose received social and cultural norms are based on conditions of scarcity and rarity and so much of whose technology is increasingly able to overcome those conditions.”⁶⁹ Technological

⁶³ *Id.* at 870 (arguing that producers are already having to commodify “immaterial scarcities that may perform the social function that material scarcities once performed” because modern production methods facilitate persuasive faux authenticity).

⁶⁴ See, e.g., Chris Weller, *Law Firms of the Future Will Be Filled with Robot Lawyers*, BUSINESS INSIDER (July 7, 2016), <http://www.businessinsider.com/law-firms-are-starting-to-use-robot-lawyers-2016-7> (discussing ROSS, an artificial intelligence “lawyer” which uses IBM’s Watson supercomputer to assist lawyers with document-heavy research); Arezou Rezvani, “*Robot Lawyer*” *Makes the Case Against Parking Tickets*, NAT’L PUB. RADIO: TECHNOLOGY (Jan. 16, 2017), <http://www.npr.org/2017/01/16/510096767/robot-lawyer-makes-the-case-against-parking-tickets> (discussing Joshua Browder’s website, donotpay.co.uk, which generates parking-ticket appeal letters and assists with landlord-tenant disputes and unexplained banking charges, based on a series of questions in everyday language).

⁶⁵ See, e.g., Anna Versai, “*The New Internet*” *Will Be Authentic and Reliable*, TECHNOWIZE (Feb. 15, 2017), <https://www.technowize.com/new-internet-will-authentic-reliable> (discussing a new start-up which hopes to create a user-authentication process for the internet to improve reliability); Callum Borchers, *Here’s Why Trump’s Attacks on ‘Fake News’ Succeed*, WASH. POST (Feb. 17, 2017), <https://www.washingtonpost.com/news/the-fix/wp/2017/02/17/heres-why-trumps-attacks-on-fake-news-succeed> (discussing some of President Trump’s issues with “fake news” and the problems posed with accuracy of information on the Internet).

⁶⁶ See *infra* Section II.A.3. for a discussion of the technology that is driving the western world closer to post-scarcity. See generally JEREMY RIFKIN, *THE ZERO MARGINAL COST SOCIETY 1–25* (2014) (chronicling the rise and fall of capitalism, the rise of the Internet of Things (connecting everyone with everything), and the paradigm shift to the Collaborative Commons (engaging billions of people to generate social capital)).

⁶⁷ Free goods include ideas and technology that are reproducible at no cost, including video games, electronic books, etc. Some goods, such as air and seawater, are practically limitless and therefore qualify. See Tejvan Pettinger, *Definition of a Free Good*, ECONOMICSHelp, May 3, 2013, <http://www.economicshelp.org/blog/2844/economics/definition-of-a-free-good>.

⁶⁸ See, e.g., Alex Mindlin, *Peer-to-Peer Downloaders Gorge on Songs*, N.Y. TIMES: TECHNOLOGY (Apr. 2, 2007), <http://www.nytimes.com/2007/04/02/technology/02drill.html>.

⁶⁹ Beebe, *supra* note 21, at 817.

development is a boon for creators,⁷⁰ but phenomenal for consumers, because it costs less for them to acquire the same goods or services than previously;⁷¹ however, while technology encourages new industries,⁷² it often harms existing ones,⁷³ and technology generates problems even for consumers. Consider the case of advertising, which any millennial will bemoan because it lowers Internet browsing speeds and rapidly uses data allowances and space on phone and computer screens.⁷⁴

Nevertheless, copying, even illegal copying, can have major benefits, especially in fashion. This is true because copying “destroys the distinctiveness of existing fashions,” which creates demand for new and newly distinctive fashions.⁷⁵ Understanding what post-scarcity means,

⁷⁰ See Lemley, *supra* note 21, at 486–93 (arguing that there are six reasons that people are creating more content than ever without IP protection: (1) the reduced reproduction and distribution costs do not reduce profits to artists, (2) technological development has reduced production costs, (3) people still buy content, and “that music may be free may encourage people to try more music,” (4) reductions in production and distribution have opened the door to new creators, (5) new creators encourage creativity in already-present creators, and (6) “motivation to create is largely internal or problem driven.”).

⁷¹ See, e.g., Max Roser, *Technological Progress*, OUR WORLD IN DATA (2016), <https://ourworldindata.org/technological-progress>.

⁷² See Katie Allen, *Technology Has Created More Jobs Than It Has Destroyed*, Says 140 Years of Data, GUARDIAN: ECONOMICS (Aug. 18, 2015), <https://www.theguardian.com/business/2015/aug/17/technology-created-more-jobs-than-destroyed-140-years-data-census>.

⁷³ See, e.g., *Five Industries Under Threat from Technology*, FINANCIAL TIMES (Dec. 26, 2016), <https://www.ft.com/content/b25e0e62-c6ca-11e6-9043-7e34c07b46ef>. See also Lemley, *supra* note 21, at 497–98 (“[T]he people making money from content in the new regime are not always the same ones who made money in the old one. . . . It may well be rational for record companies and movie studios to fight the digital transition, even if it is rational for everyone else concerned to hope they lose the fight.”).

⁷⁴ See Menell, *supra* note 13, at 182 (“What began as a largely innocuous means of subsidizing print media and a solution to funding broadcast media has increasingly distorted the integrity of news reporting and creative expression. . . . What we perceive as “free” comes at a significant human, cultural, public health and welfare cost.”) (citation omitted); cf. RIFKIN, *supra* note 66, at 251 (citing *The End of the Free Lunch—Again*, ECONOMIST (Mar. 19, 2009), <http://www.economist.com/node/13326158> (“But what if the users aren’t listening, aren’t watching, and are looking to their peers for product recommendations and validation? The *Economist* concludes that ‘the number of companies that can be sustained by revenues from internet advertising turns out to be much smaller than many people thought.’”)).

⁷⁵ Beebe, *supra* note 21, at 821–22 (“The traditional economic account of the fashion process incorrectly assumes that individuals and groups innovate new fashions primarily to assert their status as hierarchically superior to others and copy preexisting fashions primarily to assert their status as hierarchically equal to others.”). Understandably, fashion designers are quite displeased with the current regime. See *Protection for Fashion Design: Hearing on H.R. 5055 Before the Subcommittee on Courts, the Internet, and Intellectual Property of the House Committee on the Judiciary*, 109th Cong. 12 (2006), <https://www.gpo.gov/fdsys/pkg/CHRG-109hhrg28908/pdf/CHRG-109hhrg28908.pdf>. Notably, H.R. 5055 did not pass, notwithstanding fashion protection in the European Union. See Francesca Montalvo, *Protecting Fashion: A Comparative Analysis of Fashion Design Protection in the U.S. and Europe*, CARDOZO ARTS & ENTERTAINMENT L.J. BLOG (Sept. 19, 2014), <http://www.cardozoarlj.com/2014/09/19/protecting-fashion-a-comparative-analysis-of-fashion-design-copyright-protection-in-the-u-s-and-europe>. Although senators have introduced bills variously in the House and Senate in the 109th

what post-scarcity includes, and the technological developments propelling post-scarcity is key to understanding the policy justifications for and against strengthened intellectual property protection.

1. Definitions of Post-Scarcity

There are several definitions of post-scarcity, each of which has some degree of validity. Karl Marx suggested that an industrial society could create wealth sufficient to satisfy all needs: the “universalizing of abundance.”⁷⁶ Robert Inglehart suggested another possible definition of post-scarcity: that society as a whole would turn away from the goals of economic growth and instead orient themselves to different values.⁷⁷ Anthony Giddens, in contrast, argues that four trends define post-scarcity: first, “the increasing involvement of political debate with questions of life politics;”⁷⁸ second, “the diffusion of circumstances of manufactured risk⁷⁹ from which no one can be completely free;”⁸⁰ third, “a decline in ‘productivism’, where this term is taken to refer to a pre-eminent commitment to economic growth;”⁸¹ and fourth, “the growing recognition that the problems of modernity cannot necessarily be resolved through more modernity.”⁸² In the contexts of copyright law and *Star Trek*, Marx’s definition is probably the most useful: that is, the possibility that there will be enough wealth that no one will be wanting. Nevertheless, Giddens’s definition is also compelling: “In the Federation, abundance and post-scarcity are much more than the absence of material poverty. They have a profound and lasting effect on behaviors and social relations. They lead to marked improvements in mental health.”⁸³

Another effect of post-scarcity is much more obvious in the patent area, where the possibility of life-saving drugs provided at drastically reduced costs is compelling. Walter Jon Williams, in his short story “Diamonds from Tequila” provides insight. “Diamonds from Tequila” is a story in which one of the characters, Ossley, uses a 3D printer to create

Congress (H.R. 5055), 110th Congress (H.R. 2033, S. 1957), 111th Congress (H.R. 2196, S. 3728), and 112th Congress (H.R. 2511, S. 3523), none have passed.

⁷⁶ Anthony Giddens, *Affluence, Poverty, and the Idea of a Post-Scarcity Society*, United Nations Research Institute for Social Development 7 (May 1995), [http://www.unrisd.org/80256B3C005BCCF9/\(httpAuxPages\)/D04C41AAF1FA94FF80256B67005B67B8/\\$file/dp63.pdf](http://www.unrisd.org/80256B3C005BCCF9/(httpAuxPages)/D04C41AAF1FA94FF80256B67005B67B8/$file/dp63.pdf).

⁷⁷ *Id.* at 8.

⁷⁸ *Id.*

⁷⁹ Manufactured risk, according to Giddens, “comes from human involvement in trying to change the course of history or alter the contours of nature.” *Id.* at 2.

⁸⁰ *Id.* at 8.

⁸¹ *Id.* (emphasis omitted).

⁸² *Id.*

⁸³ SAADIA, *supra* note 16, at 169–70.

a machine which accelerates the chemical processes in winemaking.⁸⁴ Ossley theorizes about creating drugs using a 3D printer:⁸⁵

Well, see, it's a shift in how everything's going to be manufactured, right? Little 3D printers in kiosks and garages, making all the tools you need. . . . [O]nce the formula gets out, people can make their medication on their own. Not just the illegal stuff, but everything else.⁸⁶

This story illuminates some of the legal issues with post-scarcity: both difficulty in maintaining a monopoly on products with intellectual property protection and difficulty in enforcing laws regarding illegal products. Moreover, post-scarcity is not limited to television and science fiction short stories: last year, students in Australia synthesized over \$100,000 worth of pyrimethamine, or Daraprim, with \$20 worth of materials.⁸⁷ The drastically reduced cost of producing such materials suggests a pressing need to revise our legal and policy goals and frameworks to accommodate the future; not simply to protect the intellectual property creators but also to protect and provide for those who have need of the life-saving drugs. Next, this Note examines the prerequisites to post-scarcity and concludes that many of the required elements are already present.

2. Elements (Potentially) Required for Post-Scarcity Reality

The western world is moving quickly toward a post-scarcity society through technological developments.⁸⁸ The society in *Star Trek* also creates post-scarcity largely through technological development—primarily the replicator, which can create almost anything for free by transporting molecules from a remote location and assembling them in the correct form.⁸⁹ Nevertheless, two other factors contribute to the post-scarcity encountered in *Star Trek*. The first of these is the absence of money, which is one of the most notable aspects of *Star Trek*, from an economic, or any other, perspective.⁹⁰ Because post-scarcity is complete for consumer

⁸⁴ Walter Jon Williams, *Diamonds from Tequila*, in ROGUES, 492, 494–96 (George R. R. Martin & Gardner Dozois eds., 2014).

⁸⁵ *Id.* at 515–16.

⁸⁶ *Id.* at 517–18.

⁸⁷ See Fiona MacDonald, *Students Have Made Martin Shkreli's \$750 Drug in Their Chem Lab for Just \$2*, SCIENCE ALERT (Dec. 1, 2016), <http://www.sciencealert.com/students-have-made-martin-shkreli-s-750-drug-in-their-chem-lab-for-just-2>; Daraprim Synthesis, OPEN SOURCE MALARIA (Nov. 29, 2016), http://malaria.ourexperiment.org/daraprim_synthesis.

⁸⁸ See *infra* Section II.A.3.

⁸⁹ See generally SAADIA, *supra* note 16, at 72–74 (describing how the replicator works).

⁹⁰ The absence of money works naturally in *Star Trek*, because people use replicators to produce whatever they need, thus destroying the demand for currency. Nevertheless, the absence of money creates some interesting situations, such as when Admiral James T. Kirk and Spock find themselves in San Francisco in 1986 (having traveled back in time to rescue a

goods—the only goods that are scarce (in the sense that the replicator cannot create them) are dilithium,⁹¹ antimatter,⁹² latinum,⁹³ and living material⁹⁴—money is no longer relevant.⁹⁵ In modern societies, money is used to convert one good into another. For example, a producer of corn may have too much corn and may lack another essential good, such as wheat. Money allows that producer to indirectly trade their excess corn for wheat, but even in today's economy, “[m]oney increasingly becomes nothing but money.”⁹⁶ In *Star Trek*, the monetary existential crisis is absent: anyone with excess resources can recycle them through the replicator and get what they are lacking in return.⁹⁷ In this sense, the tragedy of the commons⁹⁸—so pressing in today's world—is absent: there is no need to deplete the oceans of fish and destroy dolphin populations in the process, because anyone who wants fish can get fish from the replicator. Recycling is a fact of life, because it is as easy to recycle something as it is to throw it away. In *Star Trek*, everyone is a “prosumer,” only producing what they consume.⁹⁹ And while connoisseurs may notice a difference between replicated and non-replicated food,¹⁰⁰ most people do not eat at Michelin-starred restaurants regularly enough to notice (or care?) whether their fish is naturally or artificially produced. Nevertheless, even in utopian science fiction such as *Star Trek*,¹⁰¹ economic necessity plays

whale), without money and therefore without the ability to pay for dinner. *STAR TREK IV: THE VOYAGE HOME* (Paramount Pictures 1986).

⁹¹ Used to power warp drives, which allow spaceships to go faster than the speed of light. See Roddenberry, *supra* note 17, at 36.

⁹² Used as a source of power in Federation ships. See *Matter/Antimatter Reaction Chamber*, *STAR TREK.COM*, http://www.startrek.com/database_article/matter-antimatter-reaction-chamber (last visited June 1, 2017).

⁹³ A liquid that the Ferengis, an alien race, use as currency. See *STAR TREK ONLINE WIKI, GOLD-PRESSED LATINUM*, http://sto.gamepedia.com/Gold-Pressed_Latinum (last visited June 1, 2017).

⁹⁴ See SAADIA, *supra* note 16, at 69.

⁹⁵ See *id.* at 24–25.

⁹⁶ Gianfranco Poggi, *Money and the Modern Mind: Georg Simmel's Philosophy of Money* 161 (1993) (quoting GEORGE SIMMEL, *GEORGE SIMMEL GESAMTAUSGABE* 609 (David Frisby & Klaus Christian Kohne eds., 1989)).

⁹⁷ See SAADIA, *supra* note 16.

⁹⁸ See *TRAGEDY OF THE COMMONS*, *THE NEW PALGRAVE DICTIONARY OF ECONOMICS ONLINE* (2008), http://dlc.dlib.indiana.edu/dlc/bitstream/handle/10535/5887/tragedy%20of%20the%20commons%20_%20Th...pdf.

⁹⁹ Nearly a century ago, Mahatma Gandhi longed for what has now been termed “prosumerism,” the combination of consumer and producer in the same person. See RIFKIN, *supra* note 66, at 104–05 (citing SURUR HODA, *GANDHI AND THE CONTEMPORARY WORLD* (1997)) (“Gandhi’s alternative proposal [to mass production] was local production by the masses in their own homes and neighborhoods—what he called *Swadeshi*. The idea behind *Swadeshi* was to ‘bring work to the people and not people to the work.’”).

¹⁰⁰ For example, Captain Picard kept non-replicated caviar on deck for special occasions, believing that the replicator produced caviar of an inferior quality. See *Star Trek: The Next Generation: Sins of the Father* (Paramount Domestic Television, March 19, 1990).

¹⁰¹ See *id.*

a huge role,¹⁰² and although the tragedy of the commons may not be a concern for the average consumer, the tragedy of the (galactic) commons is still uncomfortably present.¹⁰³ And there is one more problem, albeit a comparatively minor one: “If we automate all the jobs, we’ll be rich—which means we’ll have a distribution problem, not an income problem.”¹⁰⁴

People have used money for so long that they assume that it is necessary for society to function well; however, with the absence of money in *Star Trek*, reputation emerges as a form of currency, allowing people to differentiate themselves through their creation rather than their consumption.¹⁰⁵ In contrast, people refer to themselves and each other today as “consumers,”¹⁰⁶ differentiating themselves qualitatively. “Through their consumption, they sort themselves into a wide variety of equilibria of assimilation and differentiation that simply yield identity.”¹⁰⁷ The consumerist economy present today is largely the result of the industrial revolution,¹⁰⁸ but *Star Trek* may paint a more accurate picture of human tendencies.¹⁰⁹ While economists suggest that as people make more money, they have less incentive to work, modern studies show that peo-

¹⁰² See, e.g., SAADIA, *supra* note 16, at 153 (“The humans in [Isaac Asimov’s] *Foundation* had no free will to speak of, their choices and their actions determined by economic necessity, the galaxy’s true deus ex machina.”).

¹⁰³ In one *Star Trek* episode, the protagonists must wrestle with the damage that their warp drives are causing to the space-time continuum. *Star Trek: The Next Generation: Force of Nature* (Paramount Domestic Television Nov. 15, 1993). See SAADIA, *supra* note 16, at 111–12, 129–36.

¹⁰⁴ See Timothy Aepfel, *Be Calm, Robots Aren’t About to Take Your Job*, *MIT Economist Says*, WALL ST. J. (Feb. 25, 2015), <https://blogs.wsj.com/economics/2015/02/25/be-calm-robots-arent-about-to-take-your-job-mit-economist-says/>; but see RIFKIN, *supra* note 66, at 122 (citing Michaela D. Platzer & Glennon J. Harrison, *The U.S. Automotive Industry: National and State Trends in Manufacturing Employment*, CORNELL UNIV. INDUS. LABOR RELATIONS SCH. 8 (Aug. 2009), http://digitalcommons.ilr.cornell.edu/key_workplace/666 (“In the period of the Great Recession, economists discovered that while millions of jobs were irreversibly lost, productivity was reaching new peaks and output was accelerating around the world, but with fewer workers at their stations. . . . Those productivity advances came about by ‘the application of new technologies such as robotics and the use of computing and software on the factory floor.’”). Jeremy Rifkin notes that “increasing disparity in income has led to a drop in the overall happiness of society. Happiness studies show that countries that have the smallest gap between rich and poor score higher in their sense of collective happiness and well-being.” RIFKIN, *supra* note 66, at 277.

¹⁰⁵ See SAADIA, *supra* note 16, at 34–37.

¹⁰⁶ See, e.g., Natasha Josefowitz, *Consumed by Our Consumer Society*, HUFFINGTON POST (Dec. 19, 2014), http://www.huffingtonpost.com/dr-natasha-josefowitz/consumed-by-our-consumer_b_6329190.html.

¹⁰⁷ Beebe, *supra* note 21, at 827–28 (citation omitted) (internal quotation marks omitted).

¹⁰⁸ See generally COLIN CAMPBELL, *THE ROMANTIC ETHIC AND THE SPIRIT OF MODERN CONSUMERISM* (1987) (arguing that Romanticism led to the Industrial Revolution and that the Industrial Revolution led to modern consumerism).

¹⁰⁹ See, e.g., Dan Pink, *The Puzzle of Motivation* (2009), http://www.ted.com/talks/dan_pink_on_motivation (discussing the flawed economic model of the modern era and how non-financial rewards produce better results).

ple with higher incomes actually work more hours, likely due to having more fulfilling and engaging work.¹¹⁰ Counter to the traditional economic justification for intellectual property protection, Mark Lemley notes that “[t]here is substantial evidence in the innovation and psychology literatures that motivation to create is largely internal or problem driven. . . . [People] seem to be motivated more by rights of attribution and recognition than by money.”¹¹¹ In a *Star Trek* social system, “the individual achieves distinction not through her consumption of commodities but through her production of gifts.”¹¹² This, in turn, encourages the “production of reputation” and generates distinction through the creation of absolute utility rather than relative utility.¹¹³ Jeremy Rifkin argues that the “Collaborative Commons” are on the rise in the modern world, and shows that social trust, or reputation, already plays a large role.¹¹⁴

3. Applications of Post-Scarcity Technology

Science fiction has contributed to many technological advances through inspiration and by suggesting areas for development.¹¹⁵ Even though post-scarcity may seem like a futuristic idea, three relatively recent developments demonstrate that the Western world is already moving toward a post-scarcity economy. Perhaps the quintessential development leading to post-scarcity was replacing guano with synthesized nitrates for fertilizer. Since the synthesis of nitrates to replace guano, artificial manufacturing of natural substances has come a long way. Human growth hormone synthesis and the possibility of synthesizing food are also illustrative, and 3D printing hails a new era and, potentially, the rise of the replicator.¹¹⁶ By allowing creators to print their creations on demand, 3D-printing technology may lead to the development of new technolo-

¹¹⁰ See *Nice Work if You Can Get Out*, *ECONOMIST* (Apr. 19, 2014), <http://www.economist.com/news/finance-and-economics/21600989-why-rich-now-have-less-leisure-poor-nice-work-if-you-can-get-out> (discussing the traditional economic theory supporting the “income effect” hypothesis, but also critiquing the “income effect” in modern society, because people with higher incomes per hour have more to lose by foregoing work and because individuals with higher incomes generally have more meaningful, enjoyable occupations).

¹¹¹ Lemley, *supra* note 21, at 492–93 (citations omitted).

¹¹² Beebe, *supra* note 21, at 885.

¹¹³ *Id.* at 886.

¹¹⁴ RIFKIN, *supra* note 66, at 257–58 (cataloging various reputation rankings online).

¹¹⁵ See, e.g., *Star Trek: The Original Series: The Cage* (Desilu Productions Nov. 27, 1988) (an episode written in 1965 which introduced the communicator, predicting the rise of the mobile phone); EDWARD BALLAMY, *LOOKING BACKWARD: 2000–1887* (1888) (predicting the “credit card”).

¹¹⁶ See Beebe, *supra* note 21, at 836 (“[3D printing] technologies suggest that what might be termed the ‘universal printer’ is not simply imaginable, but an increasingly realistic possibility. It may not be too much to suggest that some point the distinction between the fifteenth-century two-dimensional printer and the twenty-first-century three-dimensional printer, capable of ‘printing out’ tangible goods according to a digitally recorded design, will be seen to be a distinction of degree, rather than of kind.”) (citation omitted); RIFKIN, *supra* note 60, at

gies, which could allow us to print food, drugs, or any variety of items.¹¹⁷ Furthermore, 3D printing is additive manufacturing,¹¹⁸ which “uses one-tenth of the material of subtractive manufacturing, giving the 3D printer a substantial leg up in efficiency and productivity.”¹¹⁹ This suggests both a lessened need for materials—and therefore a lowered cost of manufacturing—and a conscientiousness about environmental concerns. All of these developments were foreshadowed, however, by a much cruder substance: guano.

In the early nineteenth century, the Spanish discovered the virtues of using guano, which contains high amounts of nitrogen, phosphates, and potassium, for fertilizer.¹²⁰ Europeans began using guano for fertilizer and food production—and consequentially, the population grew dramatically.¹²¹ By the beginning of the twentieth century, guano reserves were quickly diminishing, and to maintain this increased food production, something had to be done.¹²² In response to the guano crisis, Fritz Haber created a mechanism for synthesizing ammonia, an essential compound in fertilizer production, in the early twentieth century.¹²³ Synthetic ammonia drastically reduced the demand for guano and allowed the rate of food production to grow even higher.¹²⁴

Over fifty years later, in 1963, scientists first started using human growth hormone to treat children with pituitary gland disorders.¹²⁵

89–90 (“Like the replicator in the *Star Trek* television series, the printer can be programmed to produce an infinite variety of products.”).

¹¹⁷ See RIFKIN, *supra* note 66, at 90 (“In the next three decades, industry analysts expect that 3D printers will be equipped to produce far more sophisticated and complex products at ever cheaper prices.”).

¹¹⁸ Additive manufacturing has historically been most common through practices such as pottery, where the potter begins with small amounts of clay, adding and shaping until she reaches the final product.

¹¹⁹ See RIFKIN, *supra* note 66, at 90. Subtractive manufacturing is best exemplified through sculptures such as Michelangelo’s *David*—Michelangelo started with a large block of marble and removed the pieces he did not want, leaving the final product. See *Michelangelo’s David*, ACADEMIA.ORG, <http://www.academia.org/explore-museum/artworks/michelangelos-david> (last visited Aug. 2, 2017).

¹²⁰ See, e.g., SAADIA, *supra* note 16, at 97–99 (discussing the Europeans’ discovery and use of guano for fertilizer).

¹²¹ See, e.g., Elizabeth Kolbert, *Head Count: Fertilizer, Fertility, and the Clashes Over Population Growth*, NEW YORKER (Oct. 21, 2013), <http://www.newyorker.com/magazine/2013/10/21/head-count-3>.

¹²² See, e.g., Cara Giaimo, *When the Western World Ran on Guano*, ATLAS OBSCURA (Oct. 14, 2015), <http://www.atlasobscura.com/articles/when-the-western-world-ran-on-guano>.

¹²³ *Id.*

¹²⁴ See SAADIA, *supra* note 16, at 98–99.

¹²⁵ See Mallory Warner, *The Big Story Behind Synthetic Human Growth Hormone*, SMITHSONIAN: STORIES FROM THE NATIONAL MUSEUM OF AMERICAN HISTORY (Oct. 18, 2012), <http://americanhistory.si.edu/blog/2012/10/human-growth-hormone.html>.

Human growth hormone was extracted from cadavers¹²⁶ until 1985, when Creutzfeldt-Jakob disease was discovered in people who had been treated with human growth hormone.¹²⁷ The Food and Drug Administration, naturally, removed human growth hormone from the market due to the risk, and Genentech and Eli Lilly quickly synthesized recombinant human growth hormone, which did not carry the same risk of disease.¹²⁸ While fertilizer and human growth hormone are two of the better examples of post-scarcity technology, many others, including genetically modified organisms,¹²⁹ have contributed to expanding resources at lowered costs.

Naturally, there are strong critiques of technological development, even from Isaac Asimov, who coined the term “robotics.” Manu Saadia says, “[t]o [Asimov], when pushed all the way, automation leads to the implosion of society as we know it. Removing the need to work means removing the ferment that binds individuals to each other.”¹³⁰ But Asimov’s critiques of automation are the result of its cost to humanity as humanity, not automation’s ability to create economic equality.¹³¹ In a world without scarcity, we can seek a *Star Trek*-like result, where humans have an imperative to work, and work together, to improve the quality of life.¹³² Gene Roddenberry, the creator of *Star Trek*, believed that humans are indeed altruistic and can work together to improve the quality of life.¹³³

¹²⁶ See *Growth Hormone: New Method for Extracting Pituitary-Gland Secretion Makes It Possible to Build Muscle and Bone in Humans*, LIFE MAGAZINE 89 (Oct. 11, 1948).

¹²⁷ See James L. Mills et al., *Long-Term Mortality in the United States Cohort of Pituitary-Derived Growth Hormone Recipients*, 144 J. OF PEDIATRICS 430, 430 (April 2004), <http://www.sciencedirect.com/science/article/pii/S0022347604000198>.

¹²⁸ *Id.* at 434.

¹²⁹ See, e.g., Greg Traxler, *The GMO Experience in North and South America*, 2 INT’L J. TECH. & GLOBALISATION 46 (2006).

¹³⁰ SAADIA, *supra* note 16, at 161.

¹³¹ Asimov did “espouse[] the position that luxury and an evenly distributed cornucopia would neuter humanity’s drive, turning people into flaccid, solipsistic bores obsessed with trifles.” SAADIA, *supra* note 16, at 163. *Star Trek* suggests that Asimov’s eventual rejection of automation is unfounded—that technology, instead of destroying humanity’s vigor, will create new ways in which to create and innovate and improve the universe. See SAADIA, *supra* note 16, at 163. (“*Star Trek* assumes that work never stops, only its motivation changes.”).

¹³² See Roddenberry, *supra* note 17, at 14 (“Technical improvement has gone beyond developing things which are smaller, or faster, or more powerful, and it is now very much centered on improving the quality of life.”).

¹³³ See SAADIA, *supra* note 16, at 167–68 (quoting MARK CLARK, STAR TREK FAQ 2.0: EVERYTHING LEFT TO KNOW ABOUT THE NEXT GENERATION, THE MOVIES, AND BEYOND 203–04 (2013)). Roddenberry’s life itself demonstrates the measure of altruism and ideological transcendence of his series. See Matthew Inman, *It’s Going to be Okay*, THE OATMEAL (Nov. 10, 2015), <http://theoatmeal.com/comics/plane> (adapting material from DAVID ALEXANDER, STAR TREK CREATOR: THE AUTHORIZED BIOGRAPHY OF GENE RODDENBERRY (1994)). Although most of The Oatmeal’s comics are vulgar and profane, this one is safe for work.

B. *Science Fiction as a Legal Guide*

The law often fails to fully grasp economic principles, or to recognize those principles as Congress has interpreted them, as Justice Breyer noted in his dissent in *Star Athletica, LLC v. Varsity Brands, Inc.*: “The Constitution grants Congress primary responsibility for assessing comparative costs and benefits and drawing copyright’s statutory lines. . . . [I]t is clear that Congress has not extended broad copyright protection to the fashion design industry.”¹³⁴ Additionally, the legislative process is flawed, and corporations often have a disproportionate impact on what legislation is passed.¹³⁵ As a result, even though the Constitution and other founding documents strive toward economic equality and opportunity for the citizens,¹³⁶ public policy often fails to reflect these truly utilitarian principles.¹³⁷ Unfortunately, the optimism in *Star Trek* does not have significant influence over the modern political reality,¹³⁸ and the Prime Directive, the modus operandi of *Star Trek*, “acts as a caution for

¹³⁴ *Star Athletica, LLC v. Varsity Brands, Inc.*, 137 S. Ct. 1034 (2017) (Breyer, J., dissenting opinion at 8).

¹³⁵ See Lee Drutman, *How Corporate Lobbyists Conquered American Democracy*, THE ATLANTIC (Apr. 20, 2015), <https://www.theatlantic.com/business/archive/2015/04/how-corporate-lobbyists-conquered-american-democracy/390822>.

¹³⁶ “We the People of the United States, in Order to . . . promote the general Welfare,” U.S. CONST. pmb. “We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness.” THE DECLARATION OF INDEPENDENCE para. 2 (U.S. 1776). My reading of the Constitution and the Declaration of Independence is more progressive than most; however, Supreme Court cases recognizing, for example, the right to bodily integrity and the right to gay marriage suggest that egalitarian principles are deeply embedded in the constitutional text. See e.g., *Obergefell v. Hodges*, 135 S. Ct. 2584 (2015); *Griswold v. Connecticut*, 381 U.S. 479 (1965).

¹³⁷ An interesting development recently is the backlash against free trade—a backlash that is nonsensical considering how much society benefits from free trade; however, in the context of the American worker, who may not see the direct benefits of free trade, other than at the supermarket, the threat of job loss is significant. Instead of Congress addressing this problem through other means, the political process has simply turned its back on trade. See, e.g., Binyamin Appelbaum, *Senate Democrats Seek to Outdo Trump on Trade*, N.Y. TIMES (Aug. 2, 2017), <https://www.nytimes.com/2017/08/02/us/politics/senate-democrats-seek-to-outdo-trump-on-trade.html> (“The turn toward protectionism in the United States and other developed nations, notably Britain, has alarmed proponents of trade who argue that globalization has made the world wealthier, healthier and happier in recent decades. While acknowledging trade has disrupted the lives of many workers, experts caution that protectionist policies will not reverse the damage.”).

¹³⁸ Consider the rise of Donald Trump on the coattails of fear and a desire to look not to the future but to the past. Anthony Giddens characterizes “cynical pessimism” as “nostalgia for ways of life that are disappearing or a negative attitude toward what is to come.” ANTHONY GIDDENS, *THE CONSEQUENCES OF MODERNITY* 136–37 (1991). Compare Rose, *supra* note 27, at 1213 (“[A]s a society, we continue to struggle with how we can learn from the past, consider the future, and move toward a post-modern ‘utopia’ that is demilitarized, includes multi-layered democratic participation, and reflects a humanization of technology.”), with SAADIA, *supra* note 16, at 140 (“In *Star Trek*’s universe, technology is humanistic, if not humanitarian.”).

the best of our humanitarian and philanthropic impulses.”¹³⁹ The Prime Directive was first and foremost a rebuke of American intervention in the Vietnam War;¹⁴⁰ however, even today, “the Prime Directive is not just unrealistic, it is plain bonkers. It is completely at odds with contemporary norms.”¹⁴¹ It is difficult to translate the overarching objectives and concerns of *Star Trek* into such a seemingly minute area as copyright law, but law and policy move slowly and cautiously, not by leaps and bounds. This is especially evident in the Supreme Court’s recent case, *Star Athletica, LLC v. Varsity Brands, Inc.*, in which the Supreme Court extended copyright protection to the designs of a cheerleading uniform by clarifying the definitions within the copyright doctrine, rather than by expanding the doctrine.

III. *STAR ATHLETICA, LLC v. VARSITY BRANDS, INC.*: DOES THE UNIFORM MAKE THE CHEERLEADER?

Varsity Brands and Star Athletica each design and manufacture cheerleading uniforms (as well as other athletic gear).¹⁴² Varsity Brands obtained copyrights for several of its cheerleading uniform designs; however, in 2010, it discovered that Star Athletica had designed and manufactured cheerleading uniforms which were very similar to Varsity Brands’ copyrighted designs. Varsity Brands sued Star Athletica in the Western District of Tennessee.¹⁴³ The district court found that the Varsity Brands’ designs fell under the “useful articles” doctrine, and held that the designs were neither physically nor conceptually separable.¹⁴⁴ The court therefore found that the designs were not copyrightable, and granted Star Athletica partial summary judgment.¹⁴⁵ On appeal, the circuit court reversed, holding that Varsity Brands’ designs were conceptually separable, and thus copyrightable, and that Star Athletica had

¹³⁹ SAADIA, *supra* note 16, at 179. Saadia also opines that “[t]he Prime Directive [the objective of the characters in *Star Trek*] could be regarded as the translation of post-scarcity into foreign policy.” SAADIA, *supra* note 16, at 180.

¹⁴⁰ H. Bruce Franklin, *Star Trek in the Vietnam Era*, 62 *SCIENCE FICTION STUDIES* 21.1 (Mar. 1994), <http://www.depauw.edu/sfs/backissues/62/franklin62art.htm>.

¹⁴¹ SAADIA, *supra* note 16, at 180.

¹⁴² See Complaint at 2–3, *Varsity Brands, Inc. v. Star Athletica, LLC*, 2012 U.S. Dist. LEXIS 85836 (W.D. Tenn. June 21, 2012) (No. 10-02508).

¹⁴³ See Complaint at 1, *Varsity Brands*, 2012 U.S. Dist. LEXIS 85836 (No. 10-02508).

¹⁴⁴ Physical separability exists “when a component of a useful article can actually be removed from the original item” and sold separately. *Chosun Int’l v. Chrisha Creations, Ltd.*, 413 F.3d 324, 329 (2d Cir. 2005). Conceptual separability exists—more broadly than physical separability—if the pictorial, graphic, or sculptural features of the useful article can be identified separately from its utilitarian aspects. See *Kieselstein-Cord v. Accessories by Pearl, Inc.*, 632 F.2d 989, 993 (2d Cir. 1980).

¹⁴⁵ See *Varsity Brands, Inc. v. Star Athletica, LLC*, No. 10-2508, 2014 U.S. Dist. LEXIS 26279, at *20, *25 (W.D. Tenn. Mar. 1, 2014).

infringed on Varsity Brands' designs.¹⁴⁶ The Supreme Court granted certiorari to determine the correct separability test for useful articles and heard oral argument on October 31, 2016.¹⁴⁷ The opinions from the district court and the circuit court highlighted the confusion surrounding the conceptual separability doctrine for useful articles and the need for resolution by the Supreme Court. The Supreme Court, in affirming the Sixth Circuit, clarified the separability doctrine without significantly expanding it or considering policy implications.

A. *The Case for Copyright in the Lower Courts*

Varsity Brands' complaint in the Western District of Tennessee alleged that Star Athletica infringed several valid copyrights for cheerleading uniform design.¹⁴⁸ More particularly, Varsity Brands alleged that several of Star Athletica's designs were "substantially similar" to five designs which Varsity Brands had registered with the Copyright Office.¹⁴⁹ Star Athletica defended on the ground that its designs were similar only due to features which were neither physically nor conceptually separable from the useful articles.¹⁵⁰ The district court agreed with Star Athletica and granted it summary judgment.¹⁵¹ The district court's opinion compared approaches used by various circuit courts to determine separability and was persuaded by the Second Circuit's approach in *Jovani Fashion, Ltd. v. Fiesta Fashions*¹⁵² and the Seventh Circuit's approach in *Pivot Point International, Inc. v. Charlene Products, Inc.*¹⁵³

The district court found *Varsity Brands* to be factually similar to *Jovani*, in which the Second Circuit denied copyright protection for a prom dress because its attractiveness was essential to its utility.¹⁵⁴ In *Varsity Brands*, the district court said that a cheerleading uniform cannot

¹⁴⁶ See *Varsity Brands, Inc. v. Star Athletica, LLC*, 799 F.3d 468, 468, 494 (6th Cir. 2015).

¹⁴⁷ See *Star Athletica, LLC v. Varsity Brands, Inc.*, 799 F.3d 468 (6th Cir. 2015), cert. granted, 84 U.S.L.W. 3611 (May 2, 2016) (No. 15-866); Petition for Writ of Certiorari at i, *Star Athletica*, 135 S. Ct. 1823 (No. 15-866).

¹⁴⁸ See *Varsity Brands, Inc. v. Star Athletica, LLC*, No. 10-02508, 2012 U.S. Dist. LEXIS 85836, at *3 (W.D. Tenn. June 21, 2012).

¹⁴⁹ See *id.*

¹⁵⁰ Copyright law does not protect "useful articles" or artistic components of "useful articles" which are not physically or conceptually separable. See 17 U.S.C. § 101 ("[T]he design of a useful article, as defined in this section, shall be considered a pictorial, graphic, or sculptural work only if, and only to the extent that, such design incorporates pictorial, graphic, or sculptural features that can be identified separately from, and are capable of existing independently of, the utilitarian aspects of the article."); *Mazer v. Stein*, 347 U.S. 201, 471 (1954); *Kieselstein-Cord v. Accessories by Pearl, Inc.*, 632 F.2d 989 (2d Cir. 1980).

¹⁵¹ See *Varsity Brands, Inc. v. Star Athletica, LLC*, No. 10-2508, 2014 U.S. Dist. LEXIS 26279, at *28 (W.D. Tenn. Mar. 1, 2014).

¹⁵² *Jovani Fashion, Ltd v. Fiesta Fashions*, 500 F. App'x 42 (2d Cir. 2012).

¹⁵³ 372 F.3d 913 (7th Cir. 2004).

¹⁵⁴ See 500 F. App'x at 44.

serve its utilitarian purposes “without any ornamentation or design.”¹⁵⁵ The district court also found instructive the Seventh Circuit’s characterization of separability in *Pivot Point*, which dealt with the separability of the artistic and useful features of a mannequin head. In *Pivot Point*, the Seventh Circuit held that the artistic aspects of the mannequin head were conceptually separable because they could be “conceptualized . . . independently of their utilitarian function.”¹⁵⁶ Indeed, *Pivot Point*’s designers conceptualized their art as existing separately from the usefulness of the mannequin head; however, in *Varsity Brands*, Varsity Brands’ designers did *not* conceptualize their art as existing separately from the cheerleading uniforms, and the district court noted that this distinction was useful.¹⁵⁷

Furthermore, the district court noted that the Fifth Circuit’s use of Melville and David Nimmer’s marketability test would produce the same result.¹⁵⁸ The marketability test asks whether pictorial, graphical, or sculptural features are marketable independently of the item’s utilitarian qualities.¹⁵⁹ The Fifth Circuit held, in *Galiano v. Harrah’s Operating Co.*, that casino uniform designs were not copyrightable because the designs were only marketable as casino uniforms—that is, *with* their utilitarian features.¹⁶⁰

Despite the different approaches of the Second, Seventh, and Fifth Circuits, the district court noted that each approach, applied in *Varsity Brands*, would produce the same result: Varsity Brands’ cheerleading uniform designs did not exist independently of “the image and concept” of their cheerleading uniforms and were therefore neither physically nor conceptually separable.¹⁶¹ Varsity Brands appealed the district court’s grant of summary judgment to the Sixth Circuit, arguing that the district court should have afforded greater deference to the Copyright Office’s

¹⁵⁵ *Varsity Brands*, 2014 U.S. Dist. LEXIS 26279, at *22. At the Fourth Circuit, the dissenting judge in *Varsity Brands* argued that “the reasonable observer would not associate this blank outfit [that is, a cheerleading uniform without any ornamentation] with cheerleading. This may be appropriate attire for a match at the All England Lawn Tennis Club, but not for a member of a cheerleading squad.” *Varsity Brands, Inc. v. Star Athletica, LLC*, 799 F.3d 468, 495 (6th Cir. 2015) (McKeague, J., dissenting). Nevertheless, a viewer of the rock band Nirvana’s music video for its song “Smells Like Teen Spirit” can easily recognize the actress’ uniforms as “cheerleading uniforms,” despite the absence of “ornamentation or design” (except for a red anarchist symbol on the actress’ shoulders). See Nirvana, *Smells Like Teen Spirit*, YouTube (June 16, 2009), https://www.youtube.com/watch?v=U_WKbfoiekq.

¹⁵⁶ 372 F.3d at 931–32.

¹⁵⁷ See *Varsity Brands*, 2014 U.S. Dist. LEXIS 26279, at *22–23.

¹⁵⁸ See MELVILLE B. NIMMER & DAVID NIMMER, 1-2A NIMMER ON COPYRIGHT § 2A-08(B)(4) (2015).

¹⁵⁹ See, e.g., *Galiano v. Harrah’s Operating Co.*, 416 F.3d 411, 422 (5th Cir. 2005).

¹⁶⁰ See *id.* at 422.

¹⁶¹ See *Varsity Brands*, 2014 U.S. Dist. LEXIS 26279, at *25–26.

determination that Varsity Brands' designs were copyrightable,¹⁶² that the district court used the wrong separability test,¹⁶³ and that Varsity's designs were not useful articles but were graphic works.¹⁶⁴ The circuit court held that the district court erred in not granting greater deference to the Copyright Office's determination that Varsity's designs were copyrightable.¹⁶⁵ Furthermore, the circuit court examined nine approaches to conceptual separability¹⁶⁶ and determined that the best approach to determine conceptual separability of a useful article involves three steps¹⁶⁷: (1) define the utilitarian aspects of the useful article,¹⁶⁸ (2) ask whether "the viewer of the design [can] identify 'pictorial, graphic, or sculptural features' separately from its utilitarian aspects,"¹⁶⁹ and (3) ask whether the pictorial, graphic, or sculptural features of the useful article can exist independently of its utilitarian aspects.¹⁷⁰ If a court answers all three questions affirmatively, the pictorial, graphic, or sculptural features are conceptually separable and therefore copyrightable.¹⁷¹ The circuit court looked to the design-process approach articulated in *Pivot Point*¹⁷² for guidance on the third question¹⁷³ and cited the *Compendium of U.S. Copyright Office Practices* in holding that the artistic features of the cheerleader uniforms could exist apart from and be "perceived as fully realized, separate works."¹⁷⁴ Therefore, the artistic features and utilitarian aspects of the cheerleader uniforms were conceptually separable.

Furthermore, the circuit court rejected Star Athletica's argument that the cheerleader uniforms' pictorial, graphic, and sculptural features

¹⁶² See 799 F.3d at 476. Varsity argued that the district court should have deferred to the Copyright Office's certificates of registration under either *Chevron, U.S.A., Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837 (1984), or *Skidmore v. Swift & Co.*, 323 U.S. 134 (1944). The Sixth Circuit held that *Skidmore* deference governs Copyright Office determinations because Copyright Office determinations "apply to individual applications and are conclusive only as to the application under review." 799 F.3d at 479. The Supreme Court granted certiorari only on the question of what test governs the separability doctrine. See *Star Athletica, LLC v. Varsity Brands, Inc.*, 136 S. Ct. 1823 (2016); Petition for Writ of Certiorari at i, *Star Athletica, LLC v. Varsity Brands, Inc.*, No. 15-866 (petition for cert. filed Jan. 5, 2016).

¹⁶³ See 799 F.3d at 476–77.

¹⁶⁴ See *id.* at 477.

¹⁶⁵ See *id.* at 480.

¹⁶⁶ See *id.* at 484–85.

¹⁶⁷ The circuit court numbered their questions differently, beginning with two questions to determine whether the design was of a pictorial, graphic, or sculptural work and whether the design was of a useful article. See *id.* at 487.

¹⁶⁸ See *id.*

¹⁶⁹ *Id.* at 488 (quoting 17 U.S.C. § 101).

¹⁷⁰ See 799 F.3d at 488.

¹⁷¹ See *id.*

¹⁷² 372 F.3d 913 (7th Cir. 2004).

¹⁷³ See *Varsity Brands*, 799 F.3d at 488.

¹⁷⁴ U.S. Copyright Office, *Compendium III: Copyright Office Practices* § 924.2(B) (2014).

were “inextricably intertwined with [their] utilitarian aspects,”¹⁷⁵ saying that applying Star Athletica’s standard would render paintings uncopyrightable because they decorate the rooms in which they hang.¹⁷⁶ The court further held that the designs did not merely enhance the nature of the cheerleading uniforms as useful articles but could exist independently or could be incorporated into other articles.¹⁷⁷ According to the circuit court, a cheerleading uniform’s essential function is to “cover the body, wick away moisture, and withstand the rigors of athletic movements.”¹⁷⁸ Considering the essential functions of a cheerleading uniform, the court held that the uniforms’ graphic features were “more like fabric design than dress design” and that the graphic features were therefore copyrightable.¹⁷⁹ In dissent, Judge McKeague argued that the Copyright Office’s determination of copyrightability was not persuasive, was inconsistent with congressional purposes,¹⁸⁰ and “would allow for the protection of patent-like features without having to fulfill the rigorous standards for obtaining a design patent.”¹⁸¹

B. Star Athletica v. Varsity Brands at the Supreme Court: To Say What the Law Is

Despite the lengthy delay between oral argument¹⁸² and the Supreme Court’s opinion,¹⁸³ the Court reached a 6-2 decision, with only justices Breyer and Kennedy in dissent. Justice Thomas, for the majority, abolished the distinction between physical and conceptual separability,¹⁸⁴ asking “whether the feature for which copyright protection is

¹⁷⁵ *Varsity Brands*, 799 F.3d at 490.

¹⁷⁶ *See id.*; but *see id.* at 495 (McKeague J., dissenting) (“That’s not true. It renders unprotectable only artwork that is integral to an item’s utilitarian function. . . . [Furthermore,] a painting is not subject to the separability analysis because it does not qualify as a ‘useful article.’”).

¹⁷⁷ *See id.* at 491 (majority opinion).

¹⁷⁸ *Id.* at 490 (citation omitted). Judge McKeague, dissenting, argued that this “broad definition could be used to describe all athletic gear.” *Id.* at 495 (McKeague J., dissenting).

¹⁷⁹ *Id.* at 493 (majority opinion).

¹⁸⁰ *See id.* at 496 (citing *Skidmore v. Swift & Co.*, 323 U.S. 134, 140 (1944) and *Morton v. Ruiz*, 415 U.S. 199, 237 (1974)).

¹⁸¹ 799 F.3d at 496 (quoting *Winfield Collection, Ltd. v. Gemmy Indus., Corp.*, 147 F. App’x 547, 550–52 (6th Cir. 2005)). Notably, in oral argument at the Supreme Court, Justice Sotomayor summarized Varsity’s claim as follows: “You’re killing . . . knock-offs . . . with copyright. You haven’t been able to do it with trademark law. You haven’t been able to do it with patent designs [sic]. We are now going to use copyright law to kill . . . the knockoff industry.” Transcript of Oral Argument at 35, *Star Athletica, LLC v. Varsity Brands, Inc.*, No. 15-866 (argued Oct. 31, 2016).

¹⁸² Oral Argument was on October 31, 2016.

¹⁸³ The Supreme Court released its opinion on March 22, 2017.

¹⁸⁴ *Star Athletica, LLC v. Varsity Brands, Inc.*, 137 S. Ct. 1002, 1014 (2017) (“The statutory text indicates that separability is a conceptual undertaking. Because separability does not require the underlying useful article to remain, the physical-conceptual distinction is unnecessary.”).

claimed would have been eligible for copyright protection as a pictorial, graphic, or sculptural work had it originally been fixed in some tangible medium other than a useful article before being applied to a useful article.”¹⁸⁵ Justice Thomas said, “imaginatively removing the surface decorations from the uniforms and applying them in another medium would not replicate the uniform itself.”¹⁸⁶ Key in the court’s consideration was the fact that another interpretation of the statute would seemingly extend copyright protection to two-dimensional designs reprinted on the surface of useful articles only as long as the design did not cover the whole surface of the useful article.¹⁸⁷ Furthermore, the court refused to consider the debate over the relative utility of a cheerleader uniform with or without the designs at issue because “[t]he statute does not require the decisionmaker to imagine a fully functioning useful article without the artistic feature.”¹⁸⁸ This analysis is problematic, however, because it essentially creates a blocking-patent parallel in copyright, where a now-copyrightable design can reduce the usefulness of a useful article. Justice Thomas further rejected the independent artistic judgment and marketability tests because “neither consideration is grounded in the text of the statute.”¹⁸⁹ Rejecting the marketability test could have positive policy foundations. Thomas says that “asking whether some segment of the market would be interested in a given work threatens to prize popular art over other forms, or to substitute judicial aesthetic preferences for the policy choices embodied” by Congress.¹⁹⁰ Similarly to statutory interpretation, Thomas limited his inquiry to “how the article and feature are perceived, not how or why they were designed.”¹⁹¹ Justice Ginsburg’s short concurrence would have upheld the Sixth Circuit on the grounds that the designs were “not designs of useful articles [but] . . . themselves copyrightable pictorial or graphic works reproduced on useful articles.”¹⁹² Although this affirmation of the Sixth Circuit’s ruling is relatively minor and will likely have little impact in the realm of copyright law, it underscores the need for the Court to affirmatively act for future interests; moreover, since the legislature has much more influence in this area, Congress should focus on encouraging the original constitutional goals of progress and development.

In dissent, Justice Breyer highlighted some of the practical difficulties which will arise from the Court’s decision, although he did not dis-

¹⁸⁵ *Id.* at 1011.

¹⁸⁶ *Id.* at 1012.

¹⁸⁷ *Id.*

¹⁸⁸ *Id.* at 1013.

¹⁸⁹ *Id.* at 1015.

¹⁹⁰ *Id.*

¹⁹¹ *Id.*

¹⁹² *Id.* at 1018 (Ginsburg, J., concurring).

cuss policy to a large extent. One of the primary problems will still be drawing the line between copyrightable subject matter and whether that protection extends to reproduction of that design on a useful article. For example, Justice Breyer mentions Vincent Van Gogh's *Shoes*, saying that copyright protection would not extend to shoes based on those which appear in the painting.¹⁹³ "The designs necessarily bring along the underlying utilitarian object. Hence each design is not conceptually separable from the physical useful object."¹⁹⁴ Breyer's argument concludes that "a copyright on Van Gogh's painting would prevent others from reproducing that painting, but it would not prevent others from reproducing and selling the comfortable old shoes that the painting depicts."¹⁹⁵ Indeed, this is where the difficulty lies, which the majority does not resolve: where does the copyright protection in the painting end; where does the ability to reproduce an item which appears in the copyrighted work begin? Breyer, moreover, would consider the absence of congressional action to be instructive: because Congress has refused to extend protection to the fashion design industry, the Court should not exercise that prerogative.¹⁹⁶ Breyer concludes by critiquing the majority with its own words: "One may not 'claim a copyright in a useful article merely by creating a replica of that article in some other medium,' such as in a picture."¹⁹⁷ Where lines should be drawn—in copyright law or in any other area of the law—is often a difficult one, involving complex questions of interpretation and policy. Often, the court has used forms of judicial activism to advance policy interests; however, copyright law is not one of those areas. Instead, Congress has steadily increased the duration of copyright protection from fourteen years to potentially over a century. Copyright protection, and intellectual property law as a whole, should not simply take corporate interests into account but should consider both the courts' methods of statutory interpretation and the policy interests—not just for fashion, but for every area of the law—and craft laws that respond proactively rather than retroactively to technological development.

CONCLUSION

The fashion industry itself has "long supplied . . . not so much absolute utility [but] relative utility."¹⁹⁸ The impetus of relative utility is problematic in a country where the income gap has radically increased.

¹⁹³ *Id.* at 1033 (Breyer, J., dissenting).

¹⁹⁴ *Id.*

¹⁹⁵ *Id.*; see also *id.* at 1035 ("Consider designs 074, 078, and 0815. They certainly look like cheerleader uniforms. That is to say, they look like pictures of cheerleader uniforms, just like Van Gogh's old shoes look like shoes. I do not see how one could see them otherwise.").

¹⁹⁶ *Id.* at 1034.

¹⁹⁷ *Id.* at 1036.

¹⁹⁸ Beebe, *supra* note 21, at 865.

Although copyright protection is necessary to “help direct funding to creators who badly need it,”¹⁹⁹ our intellectual property laws should look not only to the present but also to the future. That is, instead of encouraging producers to commodify “what are essentially forms of pre- or anti-modernity,” selling “the distinction of terroir, history, and legend to a world that has otherwise been deterritorialized, dehistoricized, and disenchanted,”²⁰⁰ American intellectual property laws should seek to encourage development without regard to prior regimes. Fashion designs have historically worked in a positive manner—the high instance of copyright infringement has encouraged greater creativity. Calls for distinction will probably never abate completely, but Congress can work toward laws and policies that encourage cultural, religious, or reputational distinctions, rather than material. One of the areas Congress can look to for inspiration is science fiction, especially utopian science fiction like *Star Trek*.

Perhaps one of the reasons drafters of law and policy have not taken science fiction seriously is that “*dystopian* science fiction never fails to capture our imaginations.”²⁰¹ As such, science fiction fails to meet what Americans perceive as our reality: a reality of progress. That sentiment of progress is the impetus behind the intellectual property clause in the Constitution; however, current incarnations of intellectual property laws have become conservative forces “to preserve certain conditions of scarcity and rarity that ‘Progress’ is increasingly overcoming.”²⁰² As “Progress” overcomes these social strictures, hopefully resources better spent “in the pursuit of absolute utility or ‘Progress’” will no longer be “spent in pursuit of intangible and otherwise typically quite meaningless and useless forms of relative utility.”²⁰³ Our intellectual property policy should be “not just technologically but socially—and politically—progressive,” and that policy should encourage the growth and extension of the system of social distinction that relies on creation, rather than consumption.²⁰⁴ Science fiction makes the case that the benefits of post scarcity are not reserved only for the technologically advanced: even poor

¹⁹⁹ Eric Priest, *Meet the New Media, Same as the Old Media: Real Lessons from China's Digital Copyright Industries*, 23 GEO. MASON L. REV. 1079, 1091 (2016) (exposing the shift in Chinese intellectual property norms away from pirated content and toward copyright protection and showing that legal pressure to keep advertisers from advertising on Internet sites with a plethora of pirated content has forced Chinese practice from a post-scarcity-type approach and toward a traditional approach to intellectual property protection).

²⁰⁰ Beebe, *supra* note 21, at 869.

²⁰¹ SAADIA, *supra* note 16, at 138 (emphasis added) (“As in Mary Shelley’s masterpiece [FRANKENSTEIN], there is an undeniable element of Christian mythology in *Terminator*. . . . It is meant to terrify and to edify. And it works.”).

²⁰² Beebe, *supra* note 21, at 888.

²⁰³ *Id.* at 882.

²⁰⁴ *Id.* at 885–86.

societies, such as that found on Ursula Le Guin's planet Annares, benefit from post-scarcity. The planet's inhabitants "manage to lead fulfilling lives and to create meaningful relationships."²⁰⁵ Examining science fiction and other sources outside the law will assist legislatures in crafting policies and laws that are prospective, hopeful, and craft a better future, in which all Americans can reasonably expect to wake up with the American Dream having become their reality.

²⁰⁵ SAADIA, *supra* note 16, at 143 ("[P]ost-scarcity is not so much a matter of material wealth or natural bounty, but an organizational option for society.").