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Intergenerational Progress

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INTERGENERATIONAL PROGRESS

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The Intellectual Property Clause of the U.S. Constitution identifies "Progress of Science and useful Arts" as the ends served by exclusive rights to writings and discoveries.[1] Courts and scholars alike overwhelmingly have conceived of these ends in utilitarian terms, seeking more and better inventions and works of authorship. As a consequence of this framing, intellectual property (IP) law relies almost entirely on the market as the mechanism for achieving "Progress," and we turn primarily to economics to evaluate and measure that Progress. In this Essay, we lay the groundwork for a broader understanding of the goals of IP law in the United States, particularly by arguing that there is room for a normative commitment to intergenerational justice.[2]

First, we argue that the normative basis for IP laws need not be utilitarianism. The Constitution does not require that we conceive of IP in utilitarian terms or that we aim only to promote efficiency or maximize value. To the contrary, the IP Clause leaves open a number of ways to conceive of Progress. Courts' and scholars' overwhelming acceptance of the utilitarian approach reflects nothing more than a modern policy choice, one made without much, if any, deliberation.[3]

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1. U.S. CONST. art. I, § 8, cl. 8 ("The Congress shall have Power . . . . To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries . . . .").

2. This obligation could be defined in a variety of ways; it could, for example, be to build the capacities of future generations, to improve the welfare of future generations, or simply to preserve and pass on inherited cultural resources. We do not take a specific position on the substantive content of the intergenerational commitment here, but instead simply posit the existence of an intergenerational commitment and question whether IP systems are as future regarding as they could or should be.

3. Think about it. Who chose utilitarianism as the normative basis for IP? Some might argue that it emerged as the consensus view among academics, politicians, and judges over the past half-century or so. But how did a consensus emerge? We suspect it was socially constructed by a host of different actors pursuing their own political and other agendas and that it dominates and persists because it is intuitive, at least at a basic level, and provides for more easily measured outcomes than alternatives. In this respect, the utilitarian model of IP reminds us of Benoît Godin's study of the

Second, we argue that acceptance of the utilitarian frame has led too easily to reliance on markets as the exclusive mechanism for achieving Progress. The fact that IP rights (as means) rely on markets (or market exploitation of the rights) does not mean that success in achieving the ends of "Progress of Science and the useful Arts" is or should be defined entirely by markets. Both IP rights and markets are merely means, and while copyright and patent laws determine the existence and shape of many markets, the ends of IP policy nonetheless include market and non-market values. This is important because, as Frischmann has discussed in detail elsewhere, economics—IP's primary methodology—struggles mightily with non-market values and various types of externalities associated with intellectual resources.[4]

To be clear, we are not arguing that a utilitarian policy focus is entirely wrong or that economics has no value in evaluating the IP system. Rather, we argue the conventional wisdom that utilitarianism is the sole normative basis for IP law rests on a very weak foundation, yet acceptance of this view has had a dramatic impact on the path of IP law and discourse. Because it relies so heavily on the market, and because the market is inherently short-sighted, IP is less future regarding than it could be. This is disappointing because the subject matter of IP makes it particularly susceptible to the promotion of intergenerational progress. Unlike tangible assets, inventions and works of authorship can be consumed non-rivalrously and can be used as productive inputs for a wide range of additional works. The subject matter of IP, then,

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linear model of innovation. Benoît Godin, *The Linear Model of Innovation: The Historical Construction of an Analytical Framework*, 31 SCI. TECH. & HUM. VALUES 639 (2006). Godin shows how:

> [T]he linear model is not an actual scientific model of innovation or intellectual progress at all. . . . Rather, a host of different actors—scientists seeking funding, economists advising government agencies, etc.—constructed the linear model of innovation to classify research activities, establish a connection between basic and applied research and eventually commercial activities, and advance political and other agendas. . . . [Despite the fact that] the linear model has been roundly criticized and rejected, [and] as Nathan Rosenberg claimed in 1994, "Everyone knows that the linear model of innovation is dead,' it remains intact in the discourse. . . . [A]lternative models have struggled to replace the linear model because they pose more difficult measurement issues, and 'with their multiple feedback loops look more like modern artwork or 'a plate of spaghetti and meatballs' than a useful analytical framework.'

BRETT FRISCHMANN, INFRASTRUCTURE: THE SOCIAL VALUE OF SHARED RESOURCES (forthcoming 2012) (manuscript at 275–76).

4. Brett M. Frischmann, *Evaluating the Demsetzian Trend in Copyright Law*, 3 REV. L. & ECON. 649 (2007); Brett Frischmann, *Spillovers Theory and Its Conceptual Boundaries*, 51 WM. & MARY L. REV. 801 (2009); Brett M. Frischmann & Mark A. Lemley, *Spillovers*, 107 COLUM. L. REV. 257 (2007).

could be leveraged much more effectively to build the capacities of future generations. We believe, for example, that IP law itself could promote intergenerational equity by making more space for productive use of intellectual assets, shortening terms of protection, or otherwise limiting the scope of IP rights. But policymakers could also account for short-sightedness embedded within the IP system by being more future-regarding in the other policies they adopt in conjunction with IP protection—for example, in funding university and nonprofit infrastructure and awarding grants for basic research.

In this Essay we begin to explore the feasibility of incorporating an intergenerational commitment into IP policy. We do so both for its own sake and as an important illustrative example of the wider range of ends IP could be structured to promote. Our feasibility inquiry raises two deeply contested philosophical questions:

> (1) What, if any, is the normative basis for intergenerational commitments?
> (2) What, if any, is the normative basis for U.S. copyright and patent laws?

We do not answer either question comprehensively here. Instead, for purposes of this Essay, we address the first question by adopting a rather broad conception of intergenerational justice, which we refer to generically as Intergenerational Progress. With this conception in mind, we dispute the conventional wisdom about the second question; specifically, we challenge the notion that the constitutionally prescribed ends for copyright and patent laws, namely "Progress in Science and the useful Arts," must be understood in utilitarian terms. We suggest that, while it does impose some limits, the IP Clause of the Constitution is open to a range of normative values whose advancement would constitute Progress. Moreover, we argue, the conventional wisdom that the IP Clause is necessarily utilitarian has deleterious yet unexamined consequences, for both current and future generations. In the end, we conclude that a normative commitment to intergenerational justice is compatible with Progress, whether or not such a commitment is grounded in utilitarianism.

I. WHAT DO WE MEAN BY INTERGENERATIONAL PROGRESS?

There are various theories of intergenerational justice, equity, and obligation. On some accounts, for example, the present generation is morally obligated to save or invest so as to allow future people to live

under "just conditions."[5] Others take a more limited view, suggesting that the present generation merely has an obligation to transmit to future generations the "fundamental blessings" it inherited.[6] Even on that view, we must acknowledge,[7] and probably preserve, the intellectual and cultural resources we have received from past generations.[8]

Again, we do not fully defend a particular theory of intergenerational equity here. For purposes of this Essay we make the more limited claim that the welfare of future generations matters—and should matter—to the present generation.[9] We do so in recognition of

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5. Rawls suggests that "just conditions" are "the conditions needed to establish and to preserve a just basic structure over time." JOHN RAWLS, JUSTICE AS FAIRNESS: A RESTATEMENT 159 (Erin Kelly ed., 2001). According to Rawls, once sufficient conditions for "just institutions" to be secure exist, then the present generation is not obligated to save for the future but must sustain the conditions necessary for future people to live under just institutions and must transmit at least the equivalent of the blessings it has received from the previous generation. *See John Rawls*, STANFORD ENCYCLOPEDIA OF PHILOSOPHY § 4.9 (2008), http://plato.stanford.edu/entires/rawls/.

6. Abraham Lincoln, The Perpetuation of Our Political Institutions: Address Before the Young Men's Lyceum of Springfield, Ill. (Jan. 27, 1838), *in* ABRAHAM LINCOLN: HIS SPEECHES AND WRITINGS 76, 76 (Roy P. Basler ed., 1946) (referring to "fundamental blessings").

7. As Blaise Pascal wrote:

> It is in this manner that we may at the present day adopt different sentiments and new opinions, without despising the ancients and without ingratitude, since the first knowledge which they have given us has served as a stepping-stone to our own, and since in these advantages we are indebted to them for our ascendency over them; because being raised by their aid to a certain degree, the slightest effort causes us to mount still higher, and with less pains and less glory we find ourselves above them. Thence it is that we are enabled to discover things which it was impossible for them to perceive. Our view is more extended, and although they knew as well as we all that they could observe in nature, they did not, nevertheless, know it so well, and we see more than they.

BLAISE PASCAL, THOUGHTS, LETTERS, AND OPUSCULES 548 (O.W. Wight trans., Boston, Houghton, Mifflin and Company 1893) (1859) (emphasis omitted).

8. *See* Michael J. Madison, *Knowledge Curation*, 86 NOTRE DAME L. REV. (forthcoming 2011).

9. This assumption may be a stretch, if the present generation's actions reflect its values. *See* Brett M. Frischmann, *Some Thoughts on Shortsightedness and Intergenerational Equity*, 36 LOY. U. CHI. L.J. 457 (2005). Still, as Edith Brown Weiss demonstrates, intergenerational stewardship duties are "supported by a robust set of cultural, political, legal and religious traditions." EDITH BROWN WEISS, IN FAIRNESS TO FUTURE GENERATIONS: INTERNATIONAL LAW, COMMON PATRIMONY, AND INTERGENERATIONAL EQUITY (1989); Frischmann, *supra*, at 461 (citing Edith Brown Weiss, *Intergenerational Equity: Toward an International Legal Framework*, *in* GLOBAL ACCORD: ENVIRONMENTAL CHALLENGES AND INTERNATIONAL RESPONSES 333, 336–42 (Nazli Choucri ed., 1993) (describing roots "in the common and civil law traditions, in

the inherent interdependence of generations that is implicit in the well-known notion that we "stand on the shoulders of giants."[10] That metaphor is most often used to emphasize the cumulative nature of cultural or scientific progress,[11] but the expression also reflects an understanding of intergenerational dependence. Each generation is both dwarf and giant; the current generation stands on the shoulders of the past and also serves as the shoulders for the future.[12] The nature of this interdependence among generations, its relationship to intellectual progress, and the moral duties generations might owe each other are quite complex issues,[13] and we plan to explore them in more detail in future work.

Accordingly, we leave aside here a host of philosophical and related implementation considerations, such as how to approach discounting or how to treat unborn persons. Our goal is simply to make the case that there is room for intergenerational equity at the IP policy table. IP systems shape the ways generations build upon, use, and interact with cultural, scientific, and other types of intellectual resources. Yet decisions about how to structure IP systems do not take explicit and meaningful account of the interests of future generations. We find this disappointing but not surprising.

In a sense, society has conflated the means and ends in IP, delegating decisions about what types of cultural, scientific, and

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Islamic law, in African customary law, and in Asian nontheistic traditions," as well as Judeo-Christian tradition, socialist legal tradition, and international law)).

10. Various scholars have studied the intellectual history of the metaphor and how its usage has evolved over time. While the modern usage may elevate the dwarf (or pygmy) to stress the superiority of the present, historical usage, for example in the Middle Ages, revered the accomplishment of the ancients. *See, e.g.*, REBECCA MOORE HOWARD, STANDING IN THE SHADOW OF GIANTS: PLAGIARISTS, AUTHORS, COLLABORATORS 65–66 (1999) (discussing the historical instability of the metaphor); ROBERT K. MERTON, ON THE SHOULDERS OF GIANTS: A SHANDEAN POSTSCRIPT (1965).

11. Suzanne Scotchmer, *Standing on the Shoulders of Giants: Cumulative Research and the Patent Law*, 5 J. ECON. PERSP. 29, 29 (1991) ("Most innovators stand on the shoulders of giants . . . .").

12. *Cf.* WILLIAM R. SHEA, DESIGNING EXPERIMENTS & GAMES OF CHANCE: THE UNCONVENTIONAL SCIENCE OF BLAISE PASCAL 191 (2003) ("We do not honor the Ancients because of their antiquity for it is rather we who are the ancients. The world is older now and we have more experience." (attributing the quote to Descartes)).

13. Keep in mind that the metaphor involves a dwarf looking out and observing from the vantage point of a giant's shoulder. Without the giant, the dwarf would be able to observe much less and would have to exert more effort walking about. With the giant's assistance, the dwarf's sight ranges far and wide. As the giant walks about, perhaps meandering randomly, perhaps walking along a path, different views of the world are revealed to the dwarf. Much more ground can be covered. The metaphor is intriguing and raises a number of other interesting questions about and perspectives on intergenerational interdependence and progress, which we leave aside for purposes of this Essay and hope to explore in the future.

intellectual progress we want to "the market." To the extent the welfare of future generations matters, we have assumed that future generations inevitably will benefit from whatever progress the market brings through economic growth and technological advancement.

There is obviously some logic to such an approach, and we do not mean to deny that IP systems optimally designed to facilitate markets would lead to progress and improve the welfare of future generations at least in some respects. Our argument is that progress need not, and indeed should not, be conceived of in linear, binary terms (more progress or less). Progress instead should be seen as contextual, in the sense that progress takes place within a particular information ecosystem, and the defining characteristics of that ecosystem shape the path along which we progress. To return to the giant and dwarf metaphor, tying the IP system to the market sets the giant walking on a particular path, one dictated by the cravings of the dwarf. Surely the dwarf (present generation) perched on the giant's shoulders (past generations' blessings) sees more if the giant walks along some path than if the giant stays still. But that does not tell us about the relative value of different paths, or even whether it might be possible to see down multiple paths at the same time. It is, in other words, not clear we should commit the future to the path dictated by our current cravings. Perhaps we can do better, both for ourselves and future generations.

II. THE NORMATIVE BASIS FOR U.S. COPYRIGHT AND PATENT LAWS

There is widespread consensus among scholars that patent and copyright laws, at least in the United States, are fundamentally utilitarian.[14] As Madhavi Sunder notes, "[u]nlike its cousins property

14. Margaret Chon, *Intellectual Property and the Development Divide*, 27 CARDOZO L. REV. 2821, 2831 (2006) ("The overall assessment of intellectual property's instrumental goal—the promotion of 'Progress,' at least in the U.S. context—has been dominated of late by the assumption that pure wealth or utility-maximization serves adequately to evaluate social welfare."); Linda R. Cohen & Roger G. Noll, *Intellectual Property, Antitrust and the New Economy*, 62 U. PITT. L. REV. 453, 461 (2001) ("[T]he conceptual model underlying American intellectual property law is utilitarian: rights are granted for social objectives (advancing knowledge and producing useful products)."); William W. Fisher III, *Reconstructing the Fair Use Doctrine*, 101 HARV. L. REV. 1659, 1688 (1988) [hereinafter Fisher, *Reconstructing the Fair Use Doctrine*] ("The utilitarian theory . . . is undoubtedly the most venerable and oft-cited of the justifications for the American law of intellectual property."); William Fisher, *Theories of Intellectual Property*, *in* NEW ESSAYS IN THE LEGAL AND POLITICAL THEORY OF PROPERTY 168, 169 (2001) (describing utilitarian theory as the "most popular" theory of IP); F. Gregory Lastowka & Dan Hunter, *The Laws of the Virtual Worlds*, 92 CALIF. L. REV. 1, 44-45 (2004) ("The literature on the granting of interests in tangible property is replete with utilitarian accounts. . . . Intellectual

law and the First Amendment, which bear the weight of values such as autonomy, culture, equality, and democracy, in the United States intellectual property is understood almost exclusively as being about *incentives.* Its theory is utilitarian, but with the maximand simply creative output."[15]

There are, of course, some notable exceptions to this rule, particularly with respect to copyright law.[16] Neil Netanel, for example, has characterized copyright as a mechanism for enhancing the democratic character of civil society.[17] Justin Hughes has articulated a variety of philosophical frames for IP.[18] Others, including Adam Mossoff, have argued that natural rights theories have played important roles in shaping IP doctrines.[19] And some have relied on non-utilitarian arguments in favor of moral rights protections, though generally not to the exclusion of a general utilitarian framework.[20] Nevertheless, it is fair to say that the utilitarian view of IP dominates and that alternative

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property is no different. . . . The economic emphasis in current American intellectual property is equally utilitarian at heart. Scholars who debate whether intellectual property grants are too broad or too narrow for the public interest are using the felicific calculus as their normative ground. Even the Supreme Court has invoked utilitarianism in deciding intellectual property cases dealing with copyright and with patent." (footnotes omitted)); Mark A. Lemley, *Property, Intellectual Property, and Free Riding*, 83 TEX. L. REV. 1031, 1032 (2005) (rejecting an anti-free-riding norm in IP and arguing that we "are better off with the traditional utilitarian explanation for intellectual property"); Pierre N. Leval, *Toward a Fair Use Standard*, 103 HARV. L. REV. 1105, 1107–10 (1990) (describing the purpose of copyright law as utilitarian).

15. Madhavi Sunder, *IP³*, 59 STAN. L. REV. 257, 259 (2006) (footnote omitted).

16. *Cf.* Dan L. Burk & Mark A. Lemley, *Policy Levers in Patent Law*, 89 VA. L. REV. 1575, 1597 (2003) ("To a greater extent than any other area of intellectual property, courts and commentators widely agree that the basic purpose of patent law is utilitarian.")

17. NEIL WEINSTOCK NETANEL, COPYRIGHT'S PARADOX (2008); *see also* Neil Weinstock Netanel, *Copyright and a Democratic Civil Society*, 106 YALE L.J. 283, 364 (1996) (noting that copyright is "in, but not of, the market").

18. Justin Hughes, *The Philosophy of Intellectual Property*, 77 GEO. L.J. 287 (1988).

19. *See, e.g.*, Adam Mossoff, *Rethinking the Development of Patents: An Intellectual History*, 1550-1800, 52 HASTINGS L.J. 1255, 1257, 1313–15 (2001); *see also* Wendy J. Gordon, *A Property Right in Self-Expression: Equality and Individualism in the Natural Law of Intellectual Property*, 102 YALE L. J. 1533 (1993) (arguing that "a properly conceived natural-rights theory of intellectual property would provide significant protection for free speech interests"); Alfred C. Yen, *Restoring the Natural Law: Copyright as Labor and Possession*, 51 OHIO ST. L.J. 517, 517 (1990) (calling for a "restoration of the natural law to our copyright jurisprudence" (footnote omitted)).

20. *See, e.g.*, ROBERTA ROSENTHAL KWALL, THE SOUL OF CREATIVITY: FORGING A MORAL RIGHTS LAW FOR THE UNITED STATES (2010).

theories have had relatively little effect on policy in recent years. Indeed, students of IP over the last several decades probably take the utilitarian view for granted, as most of the leading textbooks present IP policy considerations predominantly in utilitarian terms.[21] Indeed, they frequently proceed to link IP explicitly to the market, focusing on the conventional public-goods story.[22]

For many, the utilitarian frame is mandated by constitutional text, which articulates Congress's IP power in means-end language: "Congress shall have the power . . . To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries."[23] Peter Menell, for example, argues that "[t]he United States Constitution expressly conditions the grant of power to Congress to create patent and copyright laws upon a utilitarian foundation . . . ."[24] Yochai Benkler takes a similar view, asserting that "[t]he Intellectual Property Clause itself states a utilitarian purpose: It permits grants of exclusive rights for limited times only and states its purpose as a social, not individual, one '[t]o promote the Progress of Science and the useful Arts.'"[25]

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21. *See, e.g.*, JULIE E. COHEN ET AL., COPYRIGHT IN A GLOBAL INFORMATION ECONOMY 6–7 (3d ed. 2010) (describing copyright as a solution to the public-goods problem, a "purely utilitarian purpose," and suggesting that "the Framers of the U.S. Constitution embraced this utilitarian rationale for copyright protection"); *id.* at 12 n.3 (noting that, despite "pronounced strains of Lockean labor theory in U.S. copyright law," "in the U.S., the utilitarian justification for copyright protection predominates, as evidenced by the constitutional grant of authority"); CRAIG JOYCE ET AL., COPYRIGHT LAW 3 (8th ed. 2010) (noting that "conventional accounts" of copyright "start with the proposition that, from the beginning, our statutes have reflected an assumption that unimpeded copying . . . would produce undesirable social consequences," and that the "focus of American copyright law is primarily on the benefits derived by the public from the labors of the authors, and only secondarily on the desirability . . . of providing a reward to the author or copyright owner," but also acknowledging that, in reality, the situation is "considerably more complicated" because of a variety of theories of copyright).

22. *See, e.g.*, MARGRETH BARRETT, INTELLECTUAL PROPERTY: CASES AND MATERIALS 2 (4th ed. 2010) ("The primary purpose of intellectual property law is to ensure a rich, diverse and competitive marketplace. To achieve this purpose, intellectual property doctrines all provide property rights as incentives to individuals who create new products, services or works of art or literature."); COHEN ET AL., *supra* note 21, at 6–7.

23. U.S. CONST. art. I, § 8, cl. 8.

24. Peter S. Menell, *Intellectual Property: General Theories*, *in* 2 ENCYCLOPEDIA OF LAW AND ECONOMICS: CIVIL LAW AND ECONOMICS 129, 130 (Boudewijn Bouckaert & Gerrit De Geest eds., 2000).

25. Yochai Benkler, *Siren Songs and Amish Children: Autonomy, Information, and Law*, 76 N.Y.U. L. REV. 23, 60 (2001); *see also id.* at 59 ("[T]he basic ideological commitment of American intellectual property is actually heavily utilitarian . . . ."); Gaia Bernstein, *In the Shadow of Innovation*, 31 CARDOZO L. REV.

Courts' statements about the purposes of IP law are perhaps open to a broader reading, as cases frequently identify as IP's goals the promotion of knowledge or the creation of social benefit, both of which could be read in non-utilitarian ways. In *Mazer v. Stein*, for example, the Court asserted that "[t]he economic philosophy behind the clause empowering Congress to grant patents and copyrights is the conviction that encouragement of individual effort by personal gain is the best way to advance public welfare through the talents of authors and inventors in 'Science and useful Arts.'"[26] In *Graham v. John Deere*, the Court claimed that Thomas Jefferson "rejected a natural-rights theory in IP rights and clearly recognized the social and economic rationale of the patent system. The patent monopoly was not designed to secure to the inventor his natural right in his discoveries. Rather, it was a reward, an inducement, to bring forth new knowledge."[27] But however broadly these statements, or the similar statements of many appellate courts,[28] might be construed, the utilitarian view of IP—and one that fully commits to the market mechanism as the means to achieving Progress—is on full display in the Court's recent IP cases.[29]

2257, 2275 (2010) ("Scholars tend to agree that the utilitarian theory—the promotion of innovation—is the prominent justification for intellectual property rights in the United States. They tie the dominance of the utilitarian goal to the instrumental nature of the U.S. Constitution's Intellectual Property Clause, which states that monopolies can be conferred 'to promote the progress of science and useful arts.'"); Lastowka & Hunter, *supra* note 14, at 44 ("The Constitution says that Congress may protect patents and copyright '[t]o promote the Progress of Science and useful Arts,' and this justification is, of course, utilitarian."); Leval, *supra* note 14, at 1108 ("Several aspects of the [constitutional] text confirm its utilitarian purpose."); Viva R. Moffat, *Mutant Copyrights and Backdoor Patents: The Problem of Overlapping Intellectual Property Protection*, 19 BERKELEY TECH. L.J. 1473, 1481 (2004) ("The utilitarian, or economic, theory is installed in the Constitution. . . . The Constitutional grant of authority provides little guidance to Congress and very little actual limit on Congressional action, but it clearly embodies the utilitarian theory for the protection of intellectual property." (footnote omitted)).

26. *Mazer v. Stein*, 347 U.S. 201, 219 (1954); *see also Harper & Row, Publishers, Inc. v. Nation Enters.*, 471 U.S. 539, 558 (1985).

27. *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 8–9 (1966). For a criticism of the Supreme Court's invocation of Thomas Jefferson's views about IP, see *Who Cares What Thomas Jefferson Thought About Patents? Reevaluating the Patent "Privilege" in Historical Context*, 92 CORNELL L. REV. 953 (2007).

28. *See, e.g.*, *Sarl Louis Feraud Int'l v. Viewfinder, Inc.*, 489 F.3d 474, 480 n.3 (2d Cir. 2007) ("[C]opyright laws are not 'matters of strong moral principle' but rather represent 'economic legislation based on policy decisions that assign rights based on assessments of what legal rules will produce the greatest economic good for society as a whole.'"); *NXIVM Corp. v. Ross Inst.*, 364 F.3d 471, 485 (2d Cir. 2004) ("If the use satisfies the criteria of § 107, it is fair because it advances the utilitarian goals of copyright.").

29. *See Eldred v. Ashcroft*, 537 U.S. 186, 212 n.18 (2003) ("Accordingly, 'copyright law *celebrates* the profit motive, recognizing that the incentive to profit from

This understanding of IP's normative premises, however, is not compelled by the text or history of the IP Clause. As a textual matter, the IP Clause is undeniably instrumental; it links a goal (promoting Progress) with a particular means (exclusive rights). It may even be consequentialist in orientation, though that is disputable.[30] But whatever version of utilitarianism one adopts, the common principle is that priority—in ranking, (e)valuation, decision making, etc.—is given to states of affairs that maximize the aggregate utility of society, where utility is measured by happiness, pleasure, or desire fulfillment (or some comparable measure).[31] Nothing in the text of the IP Clause compels us to conceive of Progress in these terms. Nor does the fact that IP systems are designed for public benefit or welfare, as the Supreme Court has reminded us,[32] mean that "benefit" or "welfare" must be equated with utility (happiness, pleasure, or preference satisfaction). Put another way, the end of "Progress in Science and the useful Arts" could be, but certainly does not have to be, read to embody the central normative objective of utilitarianism—maximizing utility (however measured).

Nor does the available historical evidence compel the conclusion that the Framers intended the Clause to be understood in utilitarian

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the exploitation of copyrights will redound to the public benefit by resulting in the proliferation of knowledge . . . . The profit motive is the engine that ensures the progress of science.' Rewarding authors for their creative labor and 'promoting . . . Progress' are thus complementary . . . ." (quoting *Am. Geophysical Union v. Texaco Inc.*, 802 F. Supp. 1, 27 (S.D.N.Y. 1992), *aff'd*, 60 F.3d 913 (2nd Cir. 1994); THE FEDERALIST NO. 43, at 272 (James Madison) (Clinton Rossiter ed., 1961))); *N.Y. Times Co., Inc. v. Tasini*, 533 U.S. 483, 496 n.3 (2001) ("Congress' adjustment of the author/publisher balance is a permissible expression of the 'economic philosophy behind the [Copyright Clause],' *i.e.*, 'the conviction that encouragement of individual effort [motivated] by personal gain is the best way to advance public welfare.'" (quoting *Harper & Row, Publishers, Inc. v. Nation Enterprises*, 471 U.S. 539, 558, (1985))).

30. It is disputable because one can argue reasonably that the means matter considerably in IP. That is why the IP clause specifies the means (exclusive rights) with limitations (limited times).

31. Utilitarianism is a very complicated branch of philosophy, though most of the complications are irrelevant here. For an accessible overview, see Lawrence B. Solum, *Legal Theory Lexicon 008: Utilitarianism*, LEGAL THEORY LEXICON, http://lsolum.typepad.com/legal_theory_lexicon/2003/11/legal_theory_le_4.html (last modified Aug. 15, 2010). *See generally* JOHN STUART MILL, UTILITARIANISM (1861), *reprinted in* 10 COLLECTED WORKS OF JOHN STUART MILL 203 (J.M. Robson ed., Univ. of Toronto Press 1969).

32. *See, e.g., Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 429 (1984) ("Rather, the limited grant [of copyright] is a means by which an important public purpose may be achieved. It is intended to motivate the creative activity of authors and inventors by the provision of a special reward, and to allow the public access to the products of their genius after the limited period of exclusive control has expired.").

terms. As Diane Zimmerman recently chronicled, copyright theory at the time of the founding was "torn among inconsistent and conflicting suppositions about its purpose, about the relative importance to it of the natural rights claims of authors and about the strength of society's claim to greater freedom to share in and utilize new expression and ideas."[33] To take just one thread, it is clear that at least some part of the motivation for the IP Clause was a determination to promote general civic improvement and education.[34] This might explain why Dotan Oliar was able to conclude that the IP Clause combines elements of several proposed powers, including an education power and a power to grant encouragements.[35] It is also consistent with James Wilson's suggestion "that government's primary objective" is not protection of property, as some of his contemporaries believed, but is instead "the cultivation and improvement of the human mind."[36] And while the goals of civic improvement, education, or cultivation of the human mind could be conceived of in broadly utilitarian terms, all of them could at least as easily be, and frequently were, understood as goods in and of themselves.

It is also clear that natural rights theories played some role in early understandings of IP rights, even if those theories have tended to take a back seat over time.[37] In fact, notwithstanding the modern consensus about the theoretical basis for IP, an economic utilitarian framework would have made IP a pretty significant outlier at a time in which the economic approach to legal rights was essentially unheard of. We think it is much more likely that the modern consensus is actually a product of the rise of law and economics over the last several decades.

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33. Diane Leenheer Zimmerman, *The Statute of Anne and its Progeny: Variations Without a Theme*, 47 HOUS. L. REV. 965, 981 (2010) [hereinafter Zimmerman, *The Statute of Anne*]; *see also* Diane Leenheer Zimmerman, *Copyrights as Incentives: Did We Just Imagine That?*, 12 THEORETICAL INQUIRIES L. 29 (2011) [hereinafter Zimmerman, *Copyrights as Incentives*].

34. Zimmerman, *The Statute of Anne*, *supra* note 33, at 984.

35. Dotan Oliar, *The (Constitutional) Convention on IP: A New Reading*, 57 UCLA L. REV. 421, 448 (2009) (arguing based on various proposed clauses that "the text of the Progress Clause and the Clause's overall ends-means structure were adapted from three proposals . . . namely Pinckney's Education Power and Madison's and Pinckney's Encouragements Powers"); *see also id.* at 447 tbl.1 (showing proposed powers).

36. *Id.* at 449 (citing *James Madison's Journal (July 13, 1787)*, *in* 1 THE RECORDS OF THE FEDERAL CONVENTION OF 1787, at 605 (Max Farrand ed., 1911) ("[Wilson] could not agree that property was the sole or the primary object of Govermt. & Society. The cultivation & improvement of the human mind was the most noble object.").

37. Mossoff, *supra* note 19; Zimmerman, *The Statute of Anne*, *supra* note 33, at 988–89.

But evaluating IP rights in non-utilitarian terms should not be remarkable; in fact, a wide range of policy discussions, including those relating to First Amendment values, are framed in non-utilitarian terms and rely overwhelmingly on non-market values. No one thinks that the case for religious freedom, for example, has to be made in utilitarian terms. Indeed, we think it would be self-evidently strange to suggest that people should have the right to free exercise only to the extent such freedom maximizes society's utility, just as we cannot imagine much support for parceling out the right to freely exercise one's religion through a market mechanism. We similarly do not hang our support for the freedom to engage in political speech, or to be tried by a jury of one's peers, on an assessment of the incentive effects of such protections.

The point is not that the interests of future generations in intellectual resources are as weighty as these constitutional rights—though we happen to believe that they frequently touch, and sometimes are intimately intertwined with, those constitutional rights. Our point is that the orthodoxy of utilitarian IP is much less about the nature of intellectual resources than the fact that this frame has become orthodox. There is no reason why IP policy must, or should, be conceived of strictly in utilitarian terms.

We suspect that most who claim the IP Clause is utilitarian really are just using "utilitarian" as a synonym for "instrumental," or that they are, perhaps unwittingly, oversimplifying to avoid the substantial complications a genuine utilitarian calculus would entail.[38] But such casual (sloppy) substitution of utilitarianism for instrumentalism can have significant consequences. Specifically, the erroneous belief that the end of Progress in Science and the useful Arts must be conceived of in utilitarian terms has had a profound effect on patent and copyright laws. Three general implications seem quite apparent:

First, non-utilitarian theories of IP, such as natural-rights theories, are marginalized if not outright rejected.[39] Not only has this relegated existing non-utilitarian theories of IP to second-class status, but it has also stunted the development of new non-utilitarian theories of IP, Neil

38. *See* David McGowan, *Copyright Nonconsequentialism*, 69 MO. L. REV. 1, 2-3, 71-72 (2004) (describing the difficulties entailed in utilitarian analysis of IP and observing that, as a result of these difficulties, many people end up falling back on their assumptions or on first principles and simply couching those arguments in utilitarian terms). McGowan himself ultimately falls back on a Lockean labor theory to justify IP. *Id.* at 3, 7, 38.

39. *See, e.g.*, Fisher, *Reconstructing the Fair Use Doctrine*, *supra* note 14, at 1687-88 (1988) ("The utilitarian theory . . . is undoubtedly the most venerable and oft-cited of the justifications for the American law of intellectual property.").

Netanel's excellent scholarship notwithstanding.[40] We believe there is plenty of room at the table for new instrumental, consequentialist, and/or welfarist theories of IP.

Second, economics "provide[s] the principal framework for analyzing intellectual property."[41] This turns out to be a very complicated point. We recognize that utilitarianism and economics are overlapping sets; there are utilitarian approaches that do not rely on economics, just as economics is not always utilitarian. We also recognize that a particular subset of economics, neoclassical economics, dominates here. Why economics appears to be the principal framework is also a complicated question. It may be due to broader social and political movements in the United States; it may be due to the rise of cost-benefit analysis in policy and regulatory settings; it may be due to the demand for quantification, measurement, and other such deliverables.[42]

Whatever the causes, as a descriptive matter, we think it is clear that most scholars move immediately from the claim that IP is fundamentally utilitarian to articulating the policy considerations explicitly in economic terms.[43] In fact, many use language suggesting

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40. *See* Neil Weinstock Netanel, *Locating Copyright Within the First Amendment Skein*, 54 STAN. L. REV. 1 (2001); Netanel, *supra* note 17; *see also* Sunder, *supra* note 15, at 259–60 ("To put it bluntly, there are no 'giant-sized' intellectual property theories capable of accommodating the full range of human values implicit in intellectual production. But there should be." (footnotes omitted)).

41. Menell, *supra* note 24, at 130; Sunder, *supra* note 15, at 261 ("Despite these real world changes, intellectual property scholars increasingly explain their field through the lens of economics. . . . [L]egal scholars continue to understand intellectual property as solely a tool to solve an economic 'public goods' problem . . . .").

42. *Cf.* Chon, *supra* note 14, at 2831 ("The overall assessment of intellectual property's instrumental goal—the promotion of 'Progress,' at least in the U.S. context—has been dominated of late by the assumption that pure wealth or utility-maximization serves adequately to evaluate social welfare. Reliance on these metrics can be explained by an analogy to a drunk looking for his keys under a streetlight: since it is extremely difficult to measure how intellectual property affects rates of innovation, policy-makers tend to over-rely on rough proxies that can be measured, such as the 'bottom line' of economic growth or losses, or net trade balances or deficits."). Much of Chon's critique resonates with us, particularly since she notes that the utilitarian economic approach creates the potential for conflict between society's short- and long-term interests. *See id.* ("This approach dovetails with the interests of intellectual property industries, whose short term goals of maximizing revenue generation are not necessarily aligned with society's long term dynamic goals of maximizing innovation.").

43. *See, e.g.*, Stephen Breyer, *The Uneasy Case for Copyright: A Study of Copyright in Books, Photocopies, and Computer Programs*, 84 HARV. L. REV. 281, 291 (1970) ("If we are to justify copyright protection, we must turn to its economic objectives.").

that the economic-incentive approach *is* utilitarian.[44] One leading IP textbook, for example, claims that "[t]he principal basis for [IP] protection in the United States is the utilitarian or economic incentive framework."[45] In fact, the same casebook ties the economic account of IP law to the Framers, essentially attributing to them the public-goods narrative frequently used to justify IP.[46]

Third, the means and ends in IP are conflated and normative decisions about the path of Progress in Science and the useful Arts are effectively delegated to the market (or the cravings of the current generation). The Supreme Court demonstrated this point succinctly in *Eldred v. Ashcroft*,[47] when it said "[t]he profit motive is the engine that ensures the progress of science."[48]

For these reasons, we think those concerned about intergenerational equity should be concerned about the dominance of the utilitarian conception of IP. This is not to say that adhering to a utilitarian view of Progress would necessarily preclude a commitment to intergenerational equity. Some philosophers and economists have, in fact, developed utilitarian conceptions of intergenerational equity.[49]

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44. To close the loop, some even attribute this utilitarian/economic theory to the constitutional text. *See, e.g.*, Moffat, *supra* note 25, at 1481 ("The utilitarian, or economic, theory is installed in the Constitution. Article 1, section 8, clause 8 provides that 'Congress shall have the Power . . . To promote the Progress of Science and Useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.'"); *see also* Lastowka & Hunter, *supra* note 14, at 44–45 ("The Constitution says that Congress may protect patents and copyright '[t]o promote the Progress of Science and useful Arts,' and this justification is, of course, utilitarian. The economic emphasis in current American intellectual property is equally utilitarian at heart. Scholars who debate whether intellectual property grants are too broad or too narrow for the public interest are using the felicific calculus as their normative ground." (footnotes omitted)).

45. ROBERT P. MERGES, PETER S. MENELL & MARK A. LEMLEY, INTELLECTUAL PROPERTY IN THE NEW TECHNOLOGICAL AGE 2 (5th ed. 2010). The authors do note that "other theories - most notably the natural rights and personhood justifications - have been important in understanding the development and scope of intellectual property law." *Id.*

46. *Id.* at 12 (noting that "[t]o understand why the Framers thought exclusive rights in inventions and creations would promote the public welfare, consider what would happen absent any sort of intellectual property protection" and then proceeding to describe how inventions are costly to create but easy to copy and therefore might be undersupplied absent the artificial scarcity created by IP law).

47. 537 U.S. 186 (2003).

48. *Id.* at 212 n.18 (quoting *Am. Geophysical Union v. Texaco Inc.*, 802 F. Supp. 1, 27 (S.D.N.Y. 1992)).

49. For an accessible synopsis, see Axel Gosseries, *Theories of Intergenerational Justice: A Synopsis*, 1 S.A.P.I.EN.S (2008), http://sapiens.revues.org/index165.html; *see also* Geir B. Asheim & Wolfgang Buchholz, *The Malleability of Undiscounted Utilitarianism as a Criterion of Intergenerational Justice*, 70 ECONOMICA 405 (2003).

But we resist a utilitarian conception of intergenerational equity for at least two reasons. First, intellectual and cultural resources play a foundational role in building individuals' capabilities to participate in a variety of social systems, including economic, cultural, political, and educational systems.[50] The value associated both with such capabilities and, when utilized, public participation in such systems is often quite difficult to capture in utilitarianism, and in particular, its primary mode of expression and analysis in policy setting, economics.[51] There may be many different types of externalities involved, and it can be incredibly difficult if not impossible to measure the aggregate social value. Elsewhere, Frischmann has tried to work within economics while addressing these boundary problems. He has recognized that "[a]nalytically, the challenge in employing economics derives from the difficulties in capturing benefits and costs realized in noneconomic systems (but caused by or at least related to actions in economic systems)."[52] This is a major part of Amartya Sen's motivation for developing the capabilities approach.[53] We are not specifically advocating a capabilities approach here, though that approach resonates with us in a number of ways. We emphasize that the IP Clause is not necessarily utilitarian in order to make room for a normative commitment to an end other than maximizing social welfare in a strictly utilitarian sense.

We also are skeptical of a utilitarian conception of intergenerational equity because it raises enormously difficult problems of discounting.[54] In one sense, a utilitarian approach could lead to an overwhelming and stifling burden on the present generation to invest: if we assume an infinite number of future generations with populations at

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50. On how ideas play this role, see Brett M. Frischmann, *Speech, Spillovers, and the First Amendment*, 2008 U. CHI. LEGAL F. 301, 311-16.

51. *See* AMARTYA SEN, DEVELOPMENT AS FREEDOM (1999).

52. Frischmann, *Spillovers Theory*, *supra* note 4, at 819.

53. *See* SEN, *supra* note 51, at 70-71. The capabilities approach comprises a normative evaluation framework influenced by economics but focused on capabilities rather than utility. Capabilities are opportunities or freedoms to realize actual, "real-life" achievements, or what Sen refers to as "functionalities." Sen deliberately emphasizes the importance of the real opportunities that people have in life and is unabashedly normative. Sen, Nussbaum, and others employing the capabilities approach write about, inter alia, how society is, or would be, better off "investing" in the capabilities of individuals to be and do what they have reason to value. We discuss the capabilities approach elsewhere.

54. *See, e.g.*, Asheim & Buchholz, *supra* note 49; John Broome, *Discounting the Future*, 23 PHIL. & PUB. AFF. 128 (1994); Giancarlo Marini & Pasquale Scaramozzino, *Social Time Preference*, 13 J. POPULATION ECON. 639 (2000); Mancur Olson & Martin J. Bailey, *Positive Time Preference*, 89 J. POL. ECON. 1 (1981); F. P. Ramsey, *A Mathematical Theory of Saving*, 38 ECON. J. 544 (1928).

least equal to that of the present generation, then one can imagine the utilitarian calculus pushing the present generation to invest everything for the future, except for resources necessary to meet the present generation's basic needs.[55] One may avoid these results[56] by applying a positive discount rate to the interests of future generations, but that would require us to have some method for choosing the appropriate discount rate, which raises a fundamental, perhaps intractable (moral) question because of the dramatic effect the discount rate can have on the substantive obligations.[57]

CONCLUSION: WHY INTERGENERATIONAL PROGRESS?

Our preliminary view is that IP systems are a particularly interesting, especially attractive (even efficient), and legally and politically viable means by which society can invest in the future. During the Symposium at the Wisconsin Law School, we presented the following five-step argument:

> (1) Intergenerational Progress, or a commitment to improving the welfare of future generations, is compatible with Progress in Science and the useful Arts;
> (2) IP systems are especially attractive means for serving the end of Intergenerational Progress because of the resources (subject matter) involved;
> (3) IP systems may struggle to serve the end of Intergenerational Progress because IP rights are designed to

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55. *See, e.g.*, *Intergenerational Justice*, STANFORD ENCYCLOPEDIA OF PHILOSOPHY, http://plato.stanford.edu/entries/justice-intergenerational/ (last updated Feb. 26, 2008). Parfitt, Sidgwick, and many others have considered this issue. *See id.*; *see also* DAVID W. PEARCE & R. KERRY TURNER, ECONOMICS OF NATURAL RESOURCES AND THE ENVIRONMENT 223-24 (1990) (failure to discount would (i) leave all generations at a subsistence level of existence because benefits would be postponed perpetually for the future and (ii) lead to cost-benefit analysis favoring rules that impose excessive sacrifices on the current generation); Douglas Kysar, *Discounting . . . on Stilts*, 74 U. CHI. L. REV. 119 (2007); Cass R. Sunstein & Arden Rowell, *On Discounting Regulatory Benefits: Risk, Money, and Intergenerational Equity*, 74 U. CHI. L. REV. 171, 199-200 (2007) (discussing discounting in the context of regulatory cost-benefit analyses).

56. There are other ways out of this conundrum, but to our knowledge, not within a utilitarian framework.

57. The significant consequences of choosing the discount rate is well illustrated in the debate among economists about climate change. *Compare* NICHOLAS STERN, THE ECONOMICS OF CLIMATE CHANGE: THE STERN REVIEW (2007), *with* William Nordhaus, The *Stern Review* on the Economics of Climate Change (May 3, 2007) (unpublished manuscript), *available at* http://nordhaus.econ.yale.edu/stern_050307.pdf.

enable and encourage market-driven investments and the market system introduces countervailing present-oriented influences (shortsightedness);
(4) The potential conflict between (2) and (3) can be, and to a degree is, resolved by institutional design, by constructing complex, mixed regimes of private property rights and public commons; and
(5) To the extent that institutional design within the IP systems does not fully resolve the conflict between (2) and (3) and IP systems are insufficient means to promote Intergenerational Progress, society may turn to other institutions, such as public funding of research, which may or may not require some degree of coordination with IP.

We realize that each of these steps raises a host of contested issues and complications.[58] It was not possible to resolve them all in this Essay. Accordingly, we focused primarily on the first step. In future work, we plan to examine the others.

58. Admittedly, we knew what we were getting into.

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