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FREE-RIDING, COOPERATION, AND 'PEACEFUL REVOLUTIONS' IN COPYRIGHT

*Nicolas Suzor**

Modern copyright law is based on the inescapable assumption that users, given the choice, will free-ride rather than pay for access. In fact, many consumers of cultural works – music, books, films, games, and other works – fundamentally want to support their production. It turns out that humans are motivated to support cultural production not only by extrinsic incentives, but also by social norms of fairness and reciprocity. This article explains how producers across the creative industries have used this insight to develop increasingly sophisticated business models that rely on voluntary payments (including pay-what-you-want schemes) to fund their costs of production.

The recognition that users are not always free-riders suggests that current policy approaches to copyright are fundamentally flawed. Because social norms are so important in consumer motivations, the perceived unfairness of the current copyright system undermines the willingness of people to pay for access to cultural goods. While recent copyright reform debate has focused on creating stronger deterrence through enforcement, increasing the perceived fairness and legitimacy of copyright law is likely to be much more effective.

*The fact that users will sometimes willingly support cultural production also challenges the economic *raison d'être* of copyright law. This article demonstrates how 'peaceful revolutions' are flipping conventional copyright models and encouraging free-riding through combining incentives and prosocial norms. Because they provide a means to support production without limiting the dissemination of knowledge and culture, there is good reason to believe that these commons-based systems of cultural production can be more efficient, more fair, and more conducive to human flourishing than conventional copyright systems. This article explains what we know about free-riding so far and what work remains to be done to understand the viability and importance of cooperative systems in funding cultural production.*

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In 1999, Napster changed copyright forever. When Metallica sued to stop the “insidious and ongoing thievery scheme”, it set up a fierce battle between the music and film industries and their consumers. Seemingly overnight, fans became selfish free-riders with “the moral fiber of common looters”.¹ For the last fifteen years, the future of our creative industries has been seen to depend upon stopping free-riders, but the war is not going well. Surge after surge has failed to keep 'pirates' from looting, filching, and stealing digital copies of music, films, and books.² A

¹ See LEE MARSHALL, *BOOTLEGGING ROMANTICISM AND COPYRIGHT IN THE MUSIC INDUSTRY* 85 (2005).

² See JESSICA REYMAN, *THE RHETORIC OF INTELLECTUAL PROPERTY COPYRIGHT LAW AND THE REGULATION OF*

recent industry report estimates that just under 30% of internet users are engaged in infringement, up by 37% in fifteen months.³ The same figures suggest that infringing content now makes up 23.8% of all internet traffic in North America, Europe, and the Asia Pacific region. Copyright is now facing a crisis: a large proportion of ordinary consumers apparently have little respect for the law or for the artists that they are ripping off.

It turns out, however, that much of what we know about copyright and free-riders is wrong. In many cases, the free-riding fans who download illicit content are also some of the content industries' biggest customers.⁴ More importantly, it turns out that fans often really want to support the artists that they love. When Radiohead famously released their 2007 album, *In Rainbows*, as a digital download for any price, their fans chose to pay a total of approximately \$3 million.⁵ Since then, a series of experiments with 'pay-what-you-want' pricing in many different creative industries have reliably shown that given the choice, audiences will often pay more than

DIGITAL CULTURE 63 (2010) (discussing “the introduction of the character of the pirate into the copyright story”).

3 David Price, *Sizing the piracy universe*, NETNAMES 8 (2013), <http://www.netnames.com/digital-piracy-sizing-piracy-universe>.

4 See, e.g., Joe Karaganis, *HADOPI Says: Let's Try Cutting off Nose to Spite Face*, MEDIA PIRACY, THE AMERICAN ASSEMBLY (Jul. 26, 2011), <http://piracy.americanassembly.org/hadopi-says-lets-try-cutting-off-nose-to-spite-face/> (reporting on results from a study of French users by the HADOPI copyright enforcement authority); Enigmax, *Suppressed Report Found Busted Pirate Site Users Were Good Consumers*, TORRENTFREAK (Jul. 19, 2011), <http://torrentfreak.com/suppressed-report-found-busted-pirate-site-users-were-good-consumers-110719/> (reporting results of a study by Society for Consumer Research); Ernesto, *Pirates Are The Music Industry's Most Valuable Customers*, TORRENTFREAK (Jan. 22, 2010), <https://torrentfreak.com/pirates-are-the-music-industrys-most-valuable-customers-100122/>. Note that the more complex question about the aggregate effect of file-sharing on copyright industry revenues remains contested.

5 Andrew Lipsman, *For Radiohead Fans, Does “Free” + “Download” = “Freeload”?*, COMSCORE (Nov. 5, 2007), http://www.comscore.com/Insights/Press_Releases/2007/11/Radiohead_Downloads; See further David Byrne and Thom Yorke on the Real Value of Music, WIRED (Dec. 18, 2007), http://www.wired.com/entertainment/music/magazine/16-01/ff_yorke?currentPage=all; Andrew Lipsman, *For those of you wondering about comScore's Radiohead study...*, COMSCORE (Nov. 8, 2007), https://www.comscore.com/ita/Insights/Blog/For_those_of_you_wondering_about_comScore_s_Radiohead_study.

they have to for access to creative works. The independent game developer 2D Boy raised over \$100,000 in two weeks by making its game, *World of Goo*, available for whatever price people wanted to pay.⁶ Semaphore Press has shown that given a choice, 83% of law students chose to pay for casebooks, and 87% of those paid the suggested price.⁷ Nearly 25,000 of Amanda Palmer's fans paid just under \$1.2 million in aggregate for her latest album, before it was even produced; the album continues to be available on her website as a pay-what-you-want download under a Creative Commons license.⁸ Over the last few years, millions of consumers have chosen to pay nearly \$70 million for games offered by Humble Bundle on pay-what-you-want terms.⁹ Institutions, too, are often willing to pay for access when they could otherwise free-ride. CERN, for example, is bringing together over 1,000 libraries to voluntarily pay the costs of making physics research articles accessible to everyone,¹⁰ and a similar project, Knowledge Unlatched, has signed up nearly 300 libraries to pay the costs of publishing open access books that are free to the world.¹¹

The success of these experiments shakes the very foundations of copyright theory. Copyright provides a mechanism for professional producers of creative works to exclude free-

6 John Walker, *World Of Goo Sale Offers Fascinating Results*, ROCK, PAPER, SHOTGUN (Oct. 20, 2009), <http://www.rockpapershotgun.com/2009/10/20/world-of-goo-sale-provides-fascinating-results/>.

7 Lydia Pallas Loren, *The Viability of the \$30 (or Less) Casebook*, SSRN ELIBRARY 14 (May 2, 2013), <http://papers.ssrn.com/abstract=2268057>.

8 *See Amanda Palmer*, KICKSTARTER, <http://www.kickstarter.com/projects/amandapalmer/amanda-palmer-the-new-record-art-book-and-tour>; Amanda Palmer, *Theatre is Evil Digital*, <http://amandapalmer.net/products/theatre-is-evil-digital/>.

9 Humble Bundle, *Prior Bundle Statistics*, <http://support.humblebundle.com/customer/portal/articles/281031-prior-bundle-statistics>.

10 SCOAP3 Working Party, *Towards Open Access Publishing in High Energy Physics* (SCOAP3 Working Party 2007), <http://scoap3.org/files/Scoap3WPReport.pdf>.

11 Knowledge Unlatched, *Press Release: Knowledge Unlatched Pilot Collection to become Open Access* (Mar. 10, 2014), http://www.knowledgeunlatched.org/wp-content/uploads/2014/03/Pilot_Press_Release_10Mar2014.pdf.

riders and recoup their costs through sales and licensing. Copyright economics is fundamentally built on the assumption that consumers will avoid paying for access if they can. This outdated model of the consumer as a self-interested rational actor actually only reflects a small part of the motivations of humans. While consumers of creative works will often free-ride, given the choice, they also very often choose not to. In fact, a large body of evidence from behavioral economics and the social sciences demonstrates that people make decisions to pay based not only on their own self-interest, but also because they are motivated by personal morality and social norms of fairness and reciprocity. It turns out that across many different cultures, about half the time, people behave as 'conditional cooperators': they are generally willing to contribute to a public good if others do as well. Only about a third of the time do people act as the rational, self-interested, wealth-maximizing free-riders that copyright theory predicts.

This insight has profound implications. First, it suggests that current policy and industry approaches to the crisis in copyright brought by the internet are deeply flawed. While modern copyright reform debates typically focus on deterring self-interested free-riders, this ignores the real problem: copyright is losing its normative legitimacy. If people are largely motivated by fairness, the perceived inability of copyright law and business models to provide fair outcomes for either artists or consumers is devastating. Surprisingly, the key to winning the war on piracy is not by continuing to ratchet up the strength of copyright penalties, but instead to increase the fairness of the system.

The second implication is more radical. I argue that the focus on free-riders in copyright is fundamentally misplaced: because we care about efficiency, fairness to authors, and the flow of

knowledge and culture, we should actually encourage free-riding where possible. Copyright, to borrow a phrase, is the worst system for coordinating cultural production, except all the others that have been tried. The insight that people will often voluntarily cooperate in funding public goods suggests that new systems might be able to support professional production in the creative industries without the great social costs that copyright imposes. I argue that we should reorient copyright theory, policy, and practice to the task of developing sustainable systems to fund creative cultural production without excluding free-riders. Ultimately, copyright should focus less on the *proportion* of people who free-ride, and more on the absolute *number* of people who choose to pay.

In this article, I explain how producers can leverage both economic incentives and social norms to fund professional cultural production without excluding free-riders. These 'peaceful revolutions' restructure copyright markets into cooperative systems based on “negotiation, consent, and self-interest”.¹² In doing so, they represent an alternate system of coordinating creative production that is both more efficient and more suited to develop a just and attractive culture than conventional copyright systems. Because they provide a means to support the creative industries without exclusivity, they enable much greater distribution and reuse of creative works, greatly reducing the social costs of excluding free-riders. For this same reason, they also enable much greater access to the knowledge and cultural goods that are a prerequisite to the learning, self-expression, and play that humans need to flourish.

12 PETER SUBER, OPEN ACCESS 146 (2012) (discussing consortia for funding open access publishing and coining the term “peaceful revolution”).

Much more work is required to understand the limits and implications of cooperative systems of coordinating cultural production. The experiments that have been attempted so far provide ample proof of concept for the proposition that these models can be successful. There is sufficient evidence to suggest that these systems can operate to routinely support a diverse range of professional production across a variety of creative industries. I show how producers can employ three structural mechanisms to increase levels of cooperation in these circumstances: providing alternate incentives and reward structures; insulating cooperators from exploitation by free-riders; and developing institutions that facilitate the development and enforcement of cooperative social norms amongst relatively stable groups of participants. Finally, I conclude by mapping out two new avenues for important future research: the first designed to understand more precisely when these systems are viable, and the second to investigate their long-run impact by considering these modes of production as complex systems within the creative industries ecosystem.

The success of alternate systems at coordinating production in the professional core of the creative industries should prompt us to reconsider some of the fundamental principles of copyright. In order to maximize the efficiency of the digital economy and to maximize opportunities for individuals to learn and to participate in culture, these alternate systems should be encouraged in the situations and industries in which they are viable. The important point for policy is that copyright and public subsidies do not represent the only methods for coordinating cultural production. While alternate systems can coexist with conventional systems, supporting a varied innovation economy will require placing different emphases on different systems of

cultural production in different circumstances. Identifying what these circumstances are is now both a key opportunity and a key challenge for copyright policy.

Part I of this article explains the foundational role that free-riders play in the basic justification for copyright law. In Part II, I introduce a series of pay-what-you-want experiments in the creative industries that demonstrate that consumers often choose not to free-ride. I provide four categories of social motivations that explain why people pay: norms of pride, shame and fairness; concern for the welfare of third parties; a basic desire to reciprocate in kind; and moral commitments to alternate systems that enable more desirable outcomes. In Part III, I argue that the mainstream focus on deterrence in copyright, the increased gap between law and practice, and the perceived failure of copyright to provide fair outcomes for either artists or consumers is likely to dampen consumer reciprocity and encourage free-riding.

In Part IV, I canvass a series of experiments where producers in the creative industries have attempted to use both incentives and reciprocity norms to fund the production of openly licensed goods (works that are free to copy, distribute, and remix by the public at large). While these forms of cooperative approaches are still relatively rare, they suggest that the range of systems for encouraging cultural production is much broader than is commonly assumed. Part V sets out the hypothesis that compared to conventional copyright systems, these 'commons-based' systems of production can be more efficient and more conducive to human flourishing. Finally, I show why there is good reason to think this hypothesis is true and outline new research methodologies that will enable it to be tested.

The research in this article synthesizes existing studies of alternate copyright business

models through a novel conceptual lens. I have supplemented the existing theoretical and empirical base with additional case studies of experiments with voluntary pricing in cultural production. In order to examine how norms around paying and free-riding are constructed and contested, I conducted a critical discourse analysis¹³ of publicly available comments and conversations by producers, participants, and observers. The experiments examined were chosen through theoretical sampling to highlight particularly unusual and revelatory instances where the social construction of motivations were being jointly developed.¹⁴ For each case study, the most relevant discussions on the public web were identified and selected for analysis.¹⁵ Participant discourse in these discussion threads were analyzed to inductively refine the predictions from the literature and to saturate some of the gaps in existing research. While many of these models are still in their infancy, this qualitative study usefully fleshes out some of the ways that participants construct and contest prosocial norms in voluntary payment schemes.

Part I. The foundational assumptions of copyright law

The common utilitarian justification for copyright is that it is “a tax on readers for the

13 For a discussion of critical discourse analysis as method, *See* generally Teun A. van Dijk, *Principles of Critical Discourse Analysis*, 4 DISCOURSE SOCIETY 249 (1993).

14 *See* Kathleen M. Eisenhardt & Melissa E. Graebner, *Theory Building From Cases*, 50 ACAD MANAGE J 25, 47 (2007) (explaining inductive theory building through theoretical sampling, where “cases are selected because they are particularly suitable for illuminating and extending relationships and logic among constructs”).

15 In particular, I examined comments in online discussion threads attached directly to PWYW and crowdfunding campaigns, as well as discussions on news websites and blogs and interactive discussions with producers on other sites. While necessarily incomplete, use of this 'naturally occurring data' allowed me to interrogate the way in which prosociality and free-riding is constructed and contested through discourse between participants in situ and in more general meta-commentary, enabling inductive theory building. *See further* DAVID SILVERMAN, INTERPRETING QUALITATIVE DATA 201 (2006) (discussing the use of “naturally occurring data” in qualitative analysis).

purpose of giving a bounty to writers.”¹⁶ It appears now that the role of copyright is not to provide authors with incentives to create,¹⁷ but to provide 'incentives for capital'.¹⁸ Without copyright, once a given work is produced, it can be copied and redistributed very cheaply.¹⁹ Copyright provides the ability to exclude free-riders, allowing producers to sell copies to the public and recoup their costs of production. Copyright accordingly enables producers to invest the resources necessary to fund new productions, on the gamble that they will be successful.

Copyright is considered necessary because users are generally assumed to be free-riders. This dominant way of thinking about copyright stems from Hardin's “tragedy of the commons” and Olson's “logic of collective action”, which assert that without private incentives, individuals are likely to free-ride rather than contribute to the maintenance or provision of public goods.²⁰ Conventional accounts of copyright accordingly assume that self-interested users will copy

16 CHARLES R. GASTON, MACAULAY’S SPEECHES ON COPYRIGHT AND LINCOLN’S ADDRESS AT COOPER UNION 25 (1914).

17 For artists, the motivations for creative work have much more to do with desire and compulsion than with monetary compensation: See J.M. Silbey, *Harvesting Intellectual Property: Inspired Beginnings and “Work-Makes-Work,” Two Stages in the Creative Processes of Artists and Innovators*, 86 NOTRE DAME LAW REVIEW 2091 (2011); Rebecca Tushnet, *Economies of Desire*, 51 WILLIAM AND MARY LAW REVIEW 513 (2009); The rewards of copyright accordingly do not appear to play a large role in motivating creative work: See Raymond Shih Ray Ku et al., *Does Copyright Law Promote Creativity - An Empirical Analysis of Copyright’s Bounty*, 62 VAND. L. REV. 1669 (2009); See further Eric E. Johnson, *Intellectual Property and the Incentive Fallacy*, FLORIDA STATE UNIVERSITY LAW REVIEW, FORTHCOMING (2011).

18 Julie E. Cohen, *Copyright as Property in the Post-Industrial Economy*, 2011 WIS. L. REV. 141, 148 (2011) (arguing that “[i]n particular, the incentives for capital that copyright supplies support mass culture industries and mass culture markets”).

19 William M. Landes & Richard A. Posner, *An Economic Analysis of Copyright Law*, 18 J. LEGAL STUD. 325, 334 (1989) (“when [copyright protection] is very low, few or no works will be created, since free riding by copiers may prevent any author from covering his cost of expression.”).

20 Garrett Hardin, *The Tragedy of the Commons*, 162 SCIENCE 1243, 162–63 (1968) (discussing humans’ “natural tendency to do the wrong thing”: “Ruin is the destination toward which all men rush, each pursuing his own best interest in a society that believes in the freedom of the commons.”); MANCUR OLSON, *THE LOGIC OF COLLECTIVE ACTION 2* (1965) (“rational, self-interested individuals will not act to achieve their common or group interests.”).

rather than pay for access to cultural and knowledge goods, leading to the underproduction of new works.²¹ This is the tragedy: it is in each individual's direct interest to free-ride, but because people free-ride, everyone is, on average, worse off.

A number of well-known exceptions exist to this standard justification, particularly where creators are able to cross-subsidize publishing through other income.²² Advertisers, for example, support a great deal of free distribution of cultural works.²³ Academics and other professionals publish as a by-product of their paid employment, motivated by prestige or a desire to share their work with the public.²⁴ Producers in the creative and cultural industries have always relied upon the public subsidies and private patronage to some extent.²⁵ A great proportion of creative artists have little expectation of receiving substantial royalties from their works; they work second (and third) jobs to fund their personal creative work and meet their costs of publishing.²⁶ Increasingly,

21 See JAMES BOYLE, *THE PUBLIC DOMAIN* 47 (2008) (arguing that the rhetoric of “the tragedy of the commons” to exercise considerable power over our policies today. Private property—enclosure—is portrayed as the happy ending for the tragedy of the commons: when policy makers see a resource that is unowned, they tend to reach reflexively for “the solving idea of property.”).

22 See, e.g., S. Breyer, *The Uneasy Case for Copyright*, 84 *HARVARD LAW REVIEW* 281, 309 (1970) (“Colleges now pay for the creation of texts to some extent by paying salaries to their authors and allowing them time to write.”); Tom G. Palmer, *Intellectual Property*, 12 *HAMLINE L. REV.* 261, 283 (1988) (“there are many mechanisms other than enforceable property rights for internalizing externalities, many of which are already in current use.”).

23 See Joëlle Farchy, *The Internet: Culture for Free*, in *A HANDBOOK OF CULTURAL ECONOMICS* 245, 249 (Ruth Towse ed., 2011) (discussing two-sided markets).

24 Arnold Plant, *The Economic Aspects of Copyright in Books*, 1 *ECONOMICA* 167, 168–69 (1934).

25 William J. Baumol, *Application of Welfare Economics*, in *A HANDBOOK OF CULTURAL ECONOMICS*, SECOND EDITION 9, 9 (Ruth Towse ed., 2011) (explaining public funding for the arts and noting that “much artistic activity historically has depended on the voluntary patronage of royal princes and, later, merchant princes.”); See further, for example, Ruth Towse, *Opera and Ballet*, in *A HANDBOOK OF CULTURAL ECONOMICS*, SECOND EDITION 313, 314–15 (Ruth Towse ed., 2011) (discussing subsidies for cultural industries, explaining that many opera houses are “private non-profit organizations which are in receipt of a mixture of public subsidy, private patronage and sponsorship”).

26 See Hans Abbing, *Poverty and Support for Artists*, in *A HANDBOOK OF CULTURAL ECONOMICS*, SECOND EDITION 344, 344 (Ruth Towse ed., 2011) (reporting that “According to research in different countries and in various surveys, between one-third and one-half of the artists in the West and Australia have overall incomes from work

too, creative professionals have chosen to give away the fixed versions of their work (including recordings, books, films, comics, and photographs) in order to increase exposure and stimulate demand for their services and value-added goods (live events, bespoke work, merchandise, and premium or limited edition works).²⁷

In recent decades, the falling costs of production and distribution of creative work have also led to an explosion in the visibility of ordinary or 'vernacular' creativity²⁸ and an extraordinary blurring of the lines between 'amateurs' and 'professionals'²⁹ and between 'users' and 'producers'.³⁰ At the same time, free software developers, wikipedians, and free culture artistic projects have shown that new communication tools enable widely distributed collaboration between unconnected individuals at a scale never seen before.³¹ It is apparent

that are at or below the so-called poverty line or subsistence level. [...] Looking at income from the arts alone instead of from work in general, artists earn even less.); *See further* S. Cunningham et al., *What's Your Other Job?* (2010) 16 (finding that in Australia, in most cases, the percentage of part-time employment is much higher in the arts than the workforce average); Bureau of Labor Statistics, *Musicians, Singers, and Related Workers*, in OCCUPATIONAL OUTLOOK HANDBOOK 2 (2010) (“Because many musicians find only part-time or intermittent work and experience unemployment between engagements, they often supplement their income with other types of jobs.”).

27 *See, e.g.*, Mike Masnick, *Nina Paley Releases Some Data On “Sita Sings The Blues”: The More She Shared, The More She Made*, TECHDIRT (Aug. 26, 2009), <http://www.techdirt.com/articles/20090824/1723375986.shtml> (Quoting the creator of feature film “Sita Sings the Blues”: “where the money comes from is the containers. And the containers, for example, are DVDs, merchandise, t-shirts, 35 mm film prints, physical screenings. ... The more the content flows freely, the more demand there is for those containers.”); *See further* Nine Inch Nails’ decision to release their album *The Slip* online for free at *Nine Inch Nails: The Slip*, NINE INCH NAILS (2008), <http://dl.nin.com/theslip/signup>; CORY DOCTOROW, CONTENT (2008) (explaining Cory Doctorow’s decision to release his books for free); Liz Dowthwaite, *Getting Paid for Giving Away Art for Free*, CREATE (Feb. 24, 2014), <http://www.create.ac.uk/blog/2014/02/25/webcomics-dowthwaite/> (discussing cross-subsidies in free online webcomics).

28 Jean Burgess, *Hearing Ordinary Voices*, 20 CONTINUUM 201 (2006).

29 *See generally* Dan Hunter & F. Gregory Lastowka, *Amateur-to-Amateur*, 46 WM. & MARY L. REV. 951 (2004) (discussing the rise of amateur production).

30 *See* AXEL BRUNS, BLOGS, WIKIPEDIA, SECOND LIFE, AND BEYOND ch. 2 (2008) (introducing the concept of “produsage”).

31 *See* L. LESSIG, REMIX 162–72 (2008) (discussing the “sharing economy” beyond Wikipedia).

through these examples and many more that 'commons-based peer-production'³² is able to provide a viable model for the large-scale collaborative production of knowledge and cultural goods without excluding free-riders. The effect of both of these phenomena has been to massively increase the availability of copyright works produced outside of the traditional copyright market paradigm, in situations where the ability to exclude free-riders is not only not necessary, but sometimes actively rejected by producers interested in encouraging widespread distribution of their works.

In much of modern copyright discourse, however, all of these activities remain at the margins. Wikipedia itself is an outlier – an exception to the norm,³³ in the same way that free-software is an exception to the conventional forms of software development.³⁴ For the core of professional creative production, the dominant assumption remains that selling access to copies is required to coordinate and fund cultural production.³⁵ Because users are generally free-riders, in order to properly support the production of expensive works of mass culture, it is assumed that “a regime of copyright law must supply incentives for capital.”³⁶ By providing an ostensibly value-neutral method of coordinating cultural production, the copyright market provides a method to extract money from consumers without relying on public funds, private patrons, or

32 See YOCHAI BENKLER, *THE WEALTH OF NETWORKS* (2006).

33 See Benjamin Mako Hill, *Almost Wikipedia: What Eight Collaborative Encyclopedia Projects Reveal About Mechanisms of Collective Action 2* (unpublished draft, on file with author) (explaining that only a small proportion of collaborative production projects online achieve success).

34 See, e.g., Jürgen Bitzer et al., *Intrinsic Motivation in Open Source Software Development*, 35 *JOURNAL OF COMPARATIVE ECONOMICS* 160 (2007) (recognizing a dichotomy between commercial software development and open source development).

35 See, e.g., Joelle Farchy, *P2P and Piracy*, 1 *REVIEW OF ECONOMIC RESEARCH ON COPYRIGHT ISSUES* 55, 66 (2004) (“The free software philosophy can never under any circumstances be extended to productions where the fixed costs are extremely high (e.g. certain kinds of movies).”).

36 Cohen, *Copyright as Property in the Post-Industrial Economy*, *supra* note 18, at 149.

advertisers, each of which can have a harmful distorting effect on the content of the work.³⁷

Part II. Users are not (always) free-riders

The mainstream copyright debate generally focuses on why consumers choose to infringe, and how free-riding can be deterred. A new narrative about the future of copyright is emerging in opposition to copyright's perceived failure to provide a fair deal either to artists or to consumers.³⁸ The normative underpinnings of this new narrative rest on the social benefits of widespread access to information,³⁹ although it is the less radical form of enabling creators to make a living in the face of mass copying in the digital economy that is most prominent. This new narrative asks a more interesting question: why do consumers choose to pay, and how can they be encouraged? In this producer-centric sense, Mike Masnick has distilled a simplified version of alternate business models of producers of creative content into a provoking algorithm: “Connect with Fans (CwF) + Reason to Buy (RtB) = The Business Model”.⁴⁰ Masnick's core argument is that the focus on free-riders in copyright industries is misplaced. Rather than expending energy trying to combat piracy in order to exclude people from accessing goods that are now costless to distribute – like digital music, movies, and books – Masnick argues that

37 N. NETANEL, COPYRIGHT'S PARADOX 81 (2008) (discussing copyright's “structural function”, which “supports a sector of authors and publishers who look to the market, not government patronage, for financial sustenance and who thus gain considerable independence from government influence.”).

38 *See, e.g.*, Jessica Litman, *Real Copyright Reform*, 96 IOWA LAW REVIEW 1, 41 (2010) (arguing that the legislative process used to enact US copyright laws “pays shockingly little attention to the reasonable interests of creators or members of their audiences”).

39 *See, e.g.*, John Perry Barlow, *The Economy of Ideas*, 2 WIRED, Mar. 1994 (quoting Stewart Brand: “Information Wants to Be Free”); *See further* Eben Moglen, *The Dotcommunist Manifesto* (2003), http://emoglen.law.columbia.edu/my_pubs/dcm.html.

40 Mike Masnick, *The Future Of Music Business Models (And Those Who Are Already There)*, TECHDIRT (Nov. 19, 2009), <http://www.techdirt.com/articles/20091119/1634117011.shtml>.

producers should 'set them free' to build attention and loyal audiences. Doing this, Masnick argues, will increase the value of complementary goods and services that are actually scarce, for which producers can much more easily charge a fee.⁴¹ Masnick's argument fits neatly into the narrative of advocates like Cory Doctorow and Tim O'Reilly, who have long argued that the biggest threat to artists is not piracy, but obscurity.⁴² Chris Anderson's book, *Free*, then encapsulates the benefits of zero-pricing for business and provides a comprehensive survey of business models not based on artificial scarcity.⁴³ This new narrative offers some hope that the crisis in copyright⁴⁴ may be overstated, and that artists and producers can flourish in the digital economy.

a. Pay-what-you-want schemes

Thousands of producers have tested this advice in practice. Across the creative industries and around the world, independent producers are combating copyright infringement not through legal enforcement, but by giving their audience a reason to pay. Pay-what-you-want models and crowdfunding⁴⁵ campaigns are starting to allow musicians,⁴⁶ comedians,⁴⁷ authors,⁴⁸

41 Mike Masnick, *The Grand Unified Theory On The Economics Of Free*, TECHDIRT (May 3, 2007), <http://www.techdirt.com/articles/20070503/012939.shtml>.

42 DOCTOROW, CONTENT, *supra* note 27, at 80; Tim O'Reilly, *Piracy is Progressive Taxation, and Other Thoughts on the Evolution of Online Distribution*, OPENP2P.COM (Dec. 11, 2002), <http://openp2p.com/lpt/a/3015>.

43 CHRIS ANDERSON, FREE (2009).

44 See Julie E. Cohen, *Pervasively Distributed Copyright Enforcement*, 95 GEO. L.J. 1 (2006) (arguing that copyright industries have used a rhetoric of permanent crisis to justify strengthened and more pervasive controls over the flow of information).

45 Crowdfunding can be defined as "the act of informally generating and distributing funds, usually online, by groups of people for specific social, personal, entertainment or other purposes": T. Kappel, *Ex Ante Crowdfunding and the Recording Industry: A Model for the US*, LOY LA ENT L REV 375, 375 (2009).; citing Peter Spellman, *Crowdfunding – Arts Patronage for the Masses*, BERKLEE MUSIC (25 February 2008). (<http://www.berklee.edu/bt/194/crowd_funding.html>).

46 See, e.g., note 8; Greg Kot, *Radiohead's "In Rainbows" experiment pays off with 3 million sales*, TURN IT UP

documentary and feature filmmakers,⁴⁹ and many more to raise the funds they need without restricting the distribution of their works. Across the range of creative industries, a series of experiments by individual artists and producers demonstrates that consumers will sometimes choose to pay rather than free-ride.

Radiohead's *In Rainbows* provides not the first, but one of the most well known tests of pay-what-you-want pricing in the creative industries. After leaving their record label, Radiohead released a digital download of their next album on their website, allowing consumers to name their own price. Strangely, whether or not Radiohead's experiment was a success depends largely on the observer's point of view; to some, the fact that a large number of consumers often chose to free-ride and pay a price of zero showed that the model was deeply flawed.⁵⁰ To others, the fact that *In Rainbows* eventually sold over 3 million copies in addition to the digital downloads, raised significantly greater profits than Radiohead's previous studio album, debuted on top of the UK and US charts, and launched their largest tour to date showed the experiment to be a

(Oct. 20, 2008), http://leisureblogs.chicagotribune.com/turn_it_up/2008/10/radioheads-in-r.html.

47 Cory Doctorow, *Louis CK's DRM-free direct-sales video experiment pays off - Boing Boing*, BOING BOING (Dec. 15, 2011), <http://boingboing.net/2011/12/15/louis-cks-drm-free-direct-sa.html>.

48 See, e.g., *Support Free eBooks*, UNGLUE.IT, <https://unglue.it/>.

49 A number of Creative Commons-licensed films have been successfully funded on Kickstarter. See, for example: Frank Weaver, *Explore Ancient Rock Art, Experience Guarani Culture!*, KICKSTARTER, <https://www.kickstarter.com/projects/frankweaver/explore-ancient-rock-art-experience-guarani-cultur>; Annie Berman, *THE FAITHFUL: The King, the Pope, the Princess*, KICKSTARTER, <https://www.kickstarter.com/projects/annieberman/the-faithful-the-king-the-pope-the-princess>; Hanna Sköld, *Granny's Dancing on the Table - a GRANNY-INVASION!*, KICKSTARTER, <https://www.kickstarter.com/projects/370814120/grannys-dancing-on-the-table-a-granny-invasion>.

50 Leah Belsky et al., *Everything in Its Right Place*, 17 MICH. TELECOMM. & TECH. L. REV. 1, 8 (2010) (noting that many commentators “noted the large percentage of downloaders who paid nothing... and concluded that music consumers are generally selfish and unwilling to contribute money to finance the music they enjoy”).

resounding success.⁵¹

Since Radiohead's experiment, many others have launched pay-what-you-want (PWYW) business models.⁵² Nine Inch Nails' openly licensed *Ghosts I-IV* was a spectacular success: Trent Reznor's industrial rock group reported profits of more than \$1.6M from fans who chose to purchase copies of the entire album despite having the option to freely download the first nine tracks.⁵³ The Humble Bundle's model for computer games allows users to specify not only their price, but the way in which that price is split between the game developers, select charities, and Humble Bundle, Inc. Each bundle typically attracts several hundred thousand backers, with the average payment often between \$4-\$10.⁵⁴ By the end of 2013, Humble's bundles had raised approximately \$70M in revenue,⁵⁵ with \$30.9M going direct to charities.⁵⁶ Humble's success has led to the launch of a number of similar PWYW bundles,⁵⁷ and Humble and others have also

51 *Id.*; See further Daniel Kreps, *Radiohead Publishers Reveal In Rainbows Numbers*, ROLLING STONE (Oct. 15, 2008), <http://www.rollingstone.com/music/news/radiohead-publishers-reveal-in-rainbows-numbers-20081015>; Greg Kot, *Radiohead's "In Rainbows" experiment pays off with 3 million sales*, TURN IT UP (Oct. 20, 2008), http://leisureblogs.chicagotribune.com/turn_it_up/2008/10/radioheads-in-r.html; Eliot Van Buskirk, *New In Rainbows Numbers Offer Lessons for Music Industry*, WIRED (Jul. 31, 2008), http://www.wired.com/listening_post/2008/07/new-in-rainbows/.

52 See generally Ju-Young Kim et al., *Pay What You Want*, 73 JOURNAL OF MARKETING 44 (2009) (discussing pay-what-you-want pricing).

53 Cheryl Foong, *Sharing with Creative Commons*, PLATFORM: JOURNAL OF MEDIA AND COMMUNICATION 64, 7 (2010).

54 Humble Bundle, *Prior Bundle Statistics*, *supra* note 9. Like many PWYW schemes, averages are often somewhat skewed by a handful (often 1–5) of patrons, usually well-known game developers or organizations, who pay thousands of dollars each round.

55 *Id.*

56 John Walker, *Interview*, ROCK PAPER SHOTGUN (Aug. 23, 2013), <http://www.rockpapershotgun.com/2013/08/23/interview-humble-bundle-on-humble-bundles/>; The Humble Bundle support page states that by 31 December 2013, the amount raised for charity had reached \$30.9M: Humble Bundle, *How much has Humble Bundle raised for charity?*, HUMBLE BUNDLE - SUPPORT (n.d.), <http://support.humblebundle.com/customer/portal/articles/657215-how-much-has-humble-bundle-raised-for-charity->.

57 See, for example: The Indie Gala, <http://www.indiegala.com/>; Indie Royale, <http://www.indieroyale.com/>.

offered bundles of ebooks, stand-up comedy, music, and other digital goods. Semaphore Press, founded by Lydia Loren and Joseph Miller in 2008, publishes casebooks, making digital downloads available to students on a pay-what-you-want scheme, usually with a suggested price of \$30.⁵⁸ Semaphore's data shows that around 83% of students chose to pay rather than free-ride, and 87% of those students chose to pay the suggested price of \$30.⁵⁹

The evidence amassed from PWYW experiments to date suggests that consumers do often pay when they could otherwise free-ride.⁶⁰ The next Part canvasses some of the reasons why people choose to pay, presenting evidence from anthropology and behavioral economics that explains why a substantial proportion of humans across many different societies will often choose to cooperate rather than free-ride.

b. Explaining altruism in pay-what-you-want schemes

The rational actor model of classical economic theory suggests that people will not pay more than the minimum to get access to a good they value. In a pay-what-you-want scheme, then, a rational consumer should choose to pay zero (or the minimum threshold amount). The examples above demonstrate that this is not the case—people often voluntarily choose to support cultural production by paying when they do not have to. In a pure pay-what-you-want scheme, choosing to pay more than necessary is altruistic cooperation, in the sense that it is not directly or indirectly beneficial for the individual.⁶¹ Clearly, when people pay more than they have to in

58 Semaphore Press, <http://semaphorepress.com/>.

59 Loren, *supra* note 7, at 13–14.

60 Belsky et al., *supra* note 50, at 5.

61 S.A. West et al., *Social Semantics*, 20 JOURNAL OF EVOLUTIONARY BIOLOGY 415, 419 (2007).

PWYW, some people are choosing to pay rather than free-ride, for reasons other than personal wealth-maximization.

Why would people choose not to free-ride? The answer is that *homo economicus*, the simple model of humans as rational, self-interested wealth-maximizers, is wrong.⁶² It turns out that decisions about whether and how much to pay are influenced by regard for others and social conceptions of fairness and reciprocity.⁶³ One of the most compelling explanations for cooperation is simply that people will often punish transgression and reward kindness with kindness.⁶⁴ “[r]eciprocity is a basic norm taught in all societies.”⁶⁵ A mass of anthropological evidence demonstrates that people are generally cooperative social animals.⁶⁶ The impulse to cooperate, to reward kindness, and to punish free-riding seems to have strong evolutionary roots: our ancestors, living in small bands, had to cooperate to survive.⁶⁷ Social norms of fairness are expressed and reinforced through this cycle of rewarding cooperators and shaming and shunning

62 See generally Herbert Gintis, *Beyond Homo Economicus*, 35 *ECOLOGICAL ECONOMICS* 311 (2000) (arguing that “[t]he economist’s treatment of rationality... cannot be supported.”); See further Samuel Bowles & Herbert Gintis, *Behavioural Science*, 415 *NATURE* 125 (2002).

63 See Ernst Fehr & Klaus M. Schmidt, *The Economics of Fairness, Reciprocity and Altruism: Experimental Evidence and New Theories*, in *HANDBOOK OF THE ECONOMICS OF GIVING, ALTRUISM AND RECIPROCITY: APPLICATIONS* 615 (Serge-Christophe Kolm & Jean Mercier Ythier eds., Burlington, Elsevier Science 2006) (providing an overview of the large body of evidence that demonstrates that “a substantial percentage of the people are strongly motivated by other-regarding preferences and that concerns for the well-being of others, for fairness and for reciprocity, cannot be ignored in social interactions.”); Iris Bohnet, *Experiments*, in *THE OXFORD HANDBOOK OF ANALYTICAL SOCIOLOGY* 1187, 1208 (Peter Hedström & Peter Bearman eds., 2009); M.A. Nowak et al., *Fairness Versus Reason in the Ultimatum Game*, 289 *SCIENCE* 1773 (2000).

64 SAMUEL BOWLES & HERBERT GINTIS, *A COOPERATIVE SPECIES* ch. 3.1 (2011) (“In experiments we commonly observe that people sacrifice their own payoffs in order to cooperate with others, to reward the cooperation of others, and to punish free-riding, even when they cannot expect to gain from acting this way.”); Ernst Fehr & Urs Fischbacher, *The Nature of Human Altruism*, 425 *NATURE* 785 (2003).

65 Elinor Ostrom, *A Behavioral Approach to the Rational Choice Theory of Collective Action*, 92 *THE AMERICAN POLITICAL SCIENCE REVIEW* 1, 10 (1998).

66 BOWLES & GINTIS, *A COOPERATIVE SPECIES*, *supra* note 64.

67 See generally CHRISTOPHER BOEHM, *MORAL ORIGINS THE EVOLUTION OF VIRTUE, ALTRUISM, AND SHAME* (2012); BOWLES & GINTIS, *A COOPERATIVE SPECIES*, *supra* note 64.

free-riders. In evolutionary biology, this is termed 'strong reciprocity',⁶⁸ to distinguish it from cases of 'direct reciprocity', where a favor is likely to be repaid (and cooperation is therefore directly beneficial).⁶⁹

As a rough baseline, behavioral experiments exploring reciprocity in a laboratory setting have consistently found that about half of the time, people tested are 'conditional cooperators' who are “willing to contribute more to a public good the more others contribute.”⁷⁰ The rational actor model predicts that in experiments designed to model contributions to public goods, where cooperation increases the rewards to everyone but leaves the participant personally worse off, rational participants will always choose to free-ride. In reality, participants often choose to cooperate.⁷¹ Other experiments show that people are willing to increase their contribution when others cooperate more as well.⁷² When they have the opportunity to do so, people are also willing

68 See E. Fehr et al., *Strong Reciprocity, Human Cooperation, and the Enforcement of Social Norms*, 13 HUMAN NATURE 1, 3 (2002) (“A person is a strong reciprocator if she is willing to sacrifice resources (a) to be kind to those who are being kind (strong positive reciprocity) and (b) to punish those who are being unkind (strong negative reciprocity). The essential feature of strong reciprocity is a willingness to sacrifice resources for rewarding fair and punishing unfair behavior even if this is costly and provides neither present nor future material rewards for the reciprocator.”).

69 West et al., *supra* note 61, at 421.

70 Ernst Fehr & Herbert Gintis, *Human Motivation and Social Cooperation*, 33 ANNUAL REVIEW OF SOCIOLOGY 43, 50 (2007) (presenting a synthesis of the literature on behavioral experiments of cooperation and concluding that “the vast majority of subjects can be classified either as purely self-regarding or as conditionally cooperative”); Colin F. Camerer & Ernst Fehr, *Measuring Social Norms and Preferences Using Experimental Games*, in FOUNDATIONS OF HUMAN SOCIALITY : ECONOMIC EXPERIMENTS AND ETHNOGRAPHIC EVIDENCE FROM FIFTEEN SMALL-SCALE SOCIETIES 55, 66 (Joseph Patrick Henrich ed., 2004); See also Urs Fischbacher et al., *Are People Conditionally Cooperative?*, 71 ECONOMICS LETTERS 397 (2001); See also Rachel T.A. Croson, *Theories of Commitment, Altruism and Reciprocity*, 45 ECONOMIC INQUIRY 199 (2007) (finding that people often contribute an amount that approximates the median or average of the contributions they know or believe others to contribute).

71 Gerald Marwell & Ruth E. Ames, *Economists Free Ride, Does Anyone Else?*, 15 JOURNAL OF PUBLIC ECONOMICS 295 (1981).

72 Camerer & Fehr, *supra* note 70, at 74–76.

to punish those who they feel are unfairly taking advantage of themselves or others.⁷³ Most of these people will withdraw their cooperation if they do not believe that others will also cooperate – nobody likes to be a sucker.⁷⁴ The same experiments demonstrate that another group – perhaps a third – will still act as predicted by a model of rational wealth-maximization and will almost always free-ride given the choice.

Basic pay-what-you-want schemes can often be successful by appealing to the cooperative nature of humans, even if only half of them respond. While a proportion of users will always free-ride, if a sufficient number of conditional cooperators can be persuaded to contribute, producers are able to recoup their investment (and profit) in the absence of any way to exclude the free-riders. The rate at which conditional cooperators choose to participate is strongly affected by their evaluation of the likelihood that others will also cooperate. It is also affected by social measures of fairness and esteem (pride and shame), by the warm glow of helping others, by a desire to reciprocate, and by ethical commitments. In the following sections, I demonstrate how each of these factors contributes to consumer decisions to cooperate in voluntary payment schemes for creative works.

i. Fairness and esteem

Generally speaking, humans care strongly about how they perceive themselves and how

⁷³ *Id.* at 68–69; Ernst Fehr & Simon Gächter, *Altruistic Punishment in Humans*, 415 NATURE 137 (2002) (finding that in experiments, people punish free-riders if they are able to, even when it is not directly in their best interests).

⁷⁴ See Wendy J. Gordon, *Discipline and Nourish*, 95 CORNELL L. REV. 733, 736 (2009) (discussing “sap aversion”: “people have a taste for not being a taken for a sucker, a fool, a simpleton, a jerk, or a sap.”).

they will be perceived by others.⁷⁵ They will, accordingly, act in ways that are considered to be right, in accordance with social norms. A large body of behavioral evidence shows that, against their direct self-interest, people make offers that are fair and reject offers that are manifestly unfair.⁷⁶ In PWYW schemes, experiments have found that people who express both a concept of fairness that encourages cooperation and also a personal commitment to fairness are often willing to pay more.⁷⁷ For an apparently small proportion of patrons, the shame of not paying also seems to play a very large role in their decisions to pay.⁷⁸

The moral requirements of fairness are under constant active construction in PWYW schemes. The way in which a campaign is framed is likely to have a very strong effect on what people consider fair and are willing to pay.⁷⁹ There is a strong social norm that artists deserve to be paid for their work, and creative goods tend to have well-established reference prices – the standard price of a CD, for example, sets a benchmark for what might be considered fair. Generally speaking, PWYW patrons disproportionately choose to pay at the default or suggested

75 See GEOFFREY BRENNAN & PHILIP PETTIT, *THE ECONOMY OF ESTEEM AN ESSAY ON CIVIL AND POLITICAL SOCIETY* ch. 1 (2004); James Andreoni & B. Douglas Bernheim, *Social Image and the 50–50 Norm*, 77 *ECONOMETRICA* 1607, 1624–25 (2009).

76 Camerer & Fehr, *supra* note 70, at 69–71 (reporting on results of “dozens of experiments under different conditions in many different countries”).

77 See, e.g., Marwell & Ames, *supra* note 71, at 308–9 (finding that a commitment to a concept of fairness that encourages high contributions to a public goods game was strongly correlated with actual payment amounts).

78 Tobias Regner, *Why Consumers Pay Voluntarily*, 2010,081 (Jena economic research papers 2010) (reporting that in a PWYW music model, “[g]uilt seems to have the strongest effect on behaviour... but it applies only to a few people.”).

79 See, e.g., Varda Liberman et al., *The Name of the Game*, 30 *PERS SOC PSYCHOL BULL* 1175 (2004) (finding that in otherwise identical games, labeling an experiment as a “Community Game” led participants to expect more cooperation from others (and also to reciprocate by cooperating in turn) more often than when the experiment was framed as a “Wall Street Game”).

reference price.⁸⁰ In some cases, producers set a default price supported by an explanation of their costs and a normative justification of a fair return.⁸¹ As might be expected, discussions of PWYW schemes are particularly rich in different constructions of how to value a particular product. Sometimes participants attempt to derive a figure based on hours of enjoyment, as measured, against some external measure of value, such as a two-hour film.⁸² Other time-based value scales are much more subjective and opaque, like this example from a purchaser of independent game developer 2D Boy's PWYW offering of *World of Goo*: "I'll either be bored of it within 10 minutes, in which case \$1 is fair, or I'll really love it, in which case I'll buy it again for \$20."⁸³

Importantly, however, there are counter-arguments in favor of free-riding, and individual participants sometimes justify their decisions to free-ride on a variety of factors. One of the most common counter-arguments proceeds on the basis that consumers may not have paid for access anyway, which means not every free-rider is a lost sale that imposes harm on the producer. This

80 Regner, *supra* note 78, at 20–21; Belsky et al., *supra* note 50, at 33–34. It is not wholly clear, however, whether consumers prefer the default because the reference price is considered to be the right price to pay or because it is simply the easier option, avoiding the more difficult mental calculation cost: See Klaus M. Schmidt et al., Pay What You Want as a Marketing Strategy in Monopolistic and Competitive Markets 19 (Dec. 19, 2012), <http://papers.ssrn.com/abstract=2191934>.

81 See, e.g., Matthias Greiff et al., *Pay What You Want - But Pay Enough! Information Asymmetries and PWYW-Pricing*, 04–2013 (Joint Discussion Paper Series in Economics 2013) (noting the strong influence of transparency (or otherwise) of the creator's production costs on consumers' willingness to pay under PWYW conditions).

82 See, e.g., comment by FistsOfTinsel, John Funk, *World of Goo "Pay What You Want" Sale a "Huge Success,"* THE ESCAPIST FORUMS (Oct. 22, 2009), <http://www.escapistmagazine.com/forums/read/7.150951-World-of-Goo-Pay-What-You-Want-Sale-a-Huge-Success> (Discussing the perceived large number of people who chose to pay very little for *World of Goo*: "Sure, it's okay to pay less, but shouldn't you really be basing the amount you pay against what you'd pay for other forms of entertainment, and compare it to the number of hours you'd get out of *Goo*? You could even divide that result and still get a lot more than a penny.").

83 Comment by "A potential player", 2D Boy, Pay-What-You-Want Birthday Sale Results (Oct. 19, 2009), <http://2dboy.com/2009/10/19/birthday-sale-results/>.

sentiment from another commentator on World of Goo's results is a common example: “Yeah, people paying some low amount seems bad, but a lot of those folks wouldn’t have bought it otherwise. So they still end up ahead.”⁸⁴ Other discussions often focus around the ability of people to pay. Participants often explain their decisions to underpay based on their personal financial circumstances, while others frequently criticize those justifications as selfish. These norms are under constant construction by participants in discussions around pay-what-you-want schemes.

While it has not been extensively empirically verified, there is a strong suggestion that PWYW works best when producers can develop strong personal links with their audience.⁸⁵ The extent to which people care about what others think of them depends on their relationship to those other people.⁸⁶ Fans, for example, might be strongly motivated to support their favorite artists, with whom they feel a special connection. Conversely, when they do not trust the motives or behavior of the producer, people will be likely pay less and pay less often.⁸⁷ This leads to two common and related post-hoc justifications for people's choice to infringe rather than pay for access to entertainment goods: a single lost sale means little to large corporations and, since individual artists are notoriously unfairly treated by publishers,⁸⁸ even less to the artists. This

84 Comment by “NKDietrich”, *Pay-What-You-Want Game Sale Results*, [H]ARD|FORUM 3 (Oct. 21, 2009), <http://hardforum.com/printthread.php?t=1462018&pp=40>.

85 See Vincent Mak et al., “*Pay What You Want*” as *Threshold Public Good Provision* 29–30 (unpublished draft) (arguing that the conditions for threshold public good provision are likely to be met for independent bands with loyal followings, amongst others).

86 Tore Ellingsen & Magnus Johannesson, *Pride and Prejudice*, 98 THE AMERICAN ECONOMIC REVIEW 990, 992 (2008) (proposing a model of behaviour based on social esteem).

87 Francisco J. León et al., *How Much Would You Like to Pay?*, 51 SOCIAL SCIENCE INFORMATION 389, 409 (2012) (suggesting that the people will pay less when they detect ulterior motives for actions).

88 See Belsky et al., *supra* note 50, at 13 (arguing that “the overwhelming majority of album releases net no

intuition is certainly reinforced quite commonly in the discourse around PWYW. Kaminski, an independent game designer, explains how he tried to personalize himself to his audience:

“I think that if people who torrent the game are aware that there is a live person behind the game, and makes the game for a living, they are more willing to provide support than to a giant lifeless studio”.⁸⁹

The responses to Kaminski's experiment often reinforce the importance of supporting independent artists. Independent artists tend to be held up to be more 'creative', producing out of 'love' (as distinct to the greed of corporations); they are often constructed to be morally worthy of support in a way that large corporations are not (“Pirating from indie [developers] is totally wrong, they make almost no money [from their games]”⁹⁰). Importantly, however, this is hotly contested – the moral requirement to pay for all access is strongly reinforced, often by reference to an imperative against 'stealing', and justifications for free-riding or piracy are often rejected as selfish: “If you can't afford it, maybe [you're] not entitled to it.”⁹¹ It must also be noted that large labels can command a much wider audience reach; potentially, even if rates of participation are lower, absolute contributions may be much higher.

The social construction of participating also feeds into the 'warm glow' that people receive

revenue for the individual artist, and it is common for artists to wind up owing money to the record label for unrecouped recording and promotion costs.”)

89 Kyle Orl, *How one game developer is making The Pirate Bay work for him*, ARS TECHNICA (Sept. 8, 2012), <http://arstechnica.com/gaming/2012/09/how-one-game-developer-is-making-the-pirate-bay-work-for-him/>.

90 Comment by “sertigo”, GreyLlama, *These kind of developers truly deserve recognition.*, REDDIT: GAMING (Aug. 17, 2012), http://www.reddit.com/r/gaming/comments/ydbdk/these_kind_of_developers_truly_deserve_recognition/.

91 Comment by “IceBreak”, *id.*

from choosing to cooperate.⁹² People often like to be recognized as generous, or as being tastemakers,⁹³ and many crowdfunding and PWYW projects exploit this by providing status rewards for various levels of support. The Humble Bundle, for example, prominently lists top contributors along with the amount they pledged. In many other crowdfunding campaigns, pledging over a threshold might earn a patron a line in the credits of a film, game, book, or recording, a distinguishing avatar in an online forum or computer game, backstage access at performances, and so on. The strength of this type of warm glow is hard to measure, and people are not often seen to talk or brag about these status signifiers, but it is likely to be important to some backers.

ii. Other regarding norms

In addition to wanting to cooperate and being seen to cooperate, people also care about the welfare of others. In behavioral experiments, cooperation increases when more is at stake – participants apparently rise to the occasion when the group stands to gain a lot from working together.⁹⁴ This implies that, contrary to the predictions of the rational actor model, “many people are positively weighting the outcomes of others.”⁹⁵ People who give derive personal

92 See James Andreoni, *Impure Altruism and Donations to Public Goods*, 100 THE ECONOMIC JOURNAL 464 (1990).

93 Helen Klæbe & Rebecca Laycock, *How to Work the Crowd: A Snapshot of Barriers and Motivations to Crowdfunding* (Artsupport, Australia Council for the Arts), Jul. 2012 81 (“Donors may pledge because they believe their friends will think they are cool if they have identified, or connected to, the ‘new hot’. This motivation increases (and is likely to be repeated) if the donor is an early identifier or supporter of an ‘unknown’ talent. Talent spotting early in a creative practitioner’s career is considered very cool within some social networks.”); JASON POTTS, CREATIVE INDUSTRIES AND ECONOMIC EVOLUTION 89 (2011) (“Credible signalling builds reputation, and reputation is social capital...”).

94 David Sally, *Conversation and Cooperation in Social Dilemmas A Meta-Analysis of Experiments from 1958 to 1992*, 7 RATIONALITY AND SOCIETY 58, 79 (1995).

95 Peter Kollock, *Social Dilemmas*, 24 ANNUAL REVIEW OF SOCIOLOGY 183, 200 (1998).

satisfaction from the act of helping others or from “making a difference”.⁹⁶ An emerging strain of neuroscience experiments suggests that this has a biological component, demonstrating that rewards received by others activate the same neural circuitry as personal rewards.⁹⁷ Evidence from behavioral economics suggests that consumers will sometimes purchase more often and pay more under a pay-what-you-want scheme with a charitable component than either a fixed-price scheme or a regular PWYW scheme.⁹⁸ This insight has been leveraged by PWYW sites to increase both number of purchases and profit – the Humble Bundle, for example, prominently stresses that, by default, a portion of the money participants choose to pay goes to a recognized charity (typically 10-30%).⁹⁹ Participants are also given the agency to redirect any proportion of their purchase price to charity – and sometimes allowed to elect a split between several charities.

iii. Reciprocity

Consumers who pay more than required in PWYW schemes are often motivated to reward what they see as kindness in producers. When given a good that is normally costly – such as recorded music – for free, and then given an option to pay, consumers are apparently often motivated to repay the generosity of the artist or producer. A survey of people who voluntarily gave money to purchase access to music under a PWYW model found that a portion of

96 See Brian Duncan, *A Theory of Impact Philanthropy*, 88 JOURNAL OF PUBLIC ECONOMICS 2159, 2160 (2004).

97 See Ernst Fehr & Colin F. Camerer, *Social Neuroeconomics*, 11 TRENDS IN COGNITIVE SCIENCES 419, 425 (2007) (providing a review of the literature and arguing that studies to date “reinforce the idea that social preferences for donating money, rejecting unfair offers, trusting others and punishing those who violate norms, are genuine expressions of preference.”)

98 Ayelet Gneezy et al., *Shared Social Responsibility*, 329 SCIENCE 325 (2010); See also Oege Dijk & Martin Holmen, *Charity, Incentives, and Performance*, Nov. 1, 2012, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2205622 (finding that charity increased cooperation in a laboratory setting).

99 Humble Bundle's tag line currently reads “Pay what you want. Support charity.”, and the charitable cause is prominently placed on the campaign page: See <https://www.humblebundle.com/>.

customers explicitly acknowledged the kind behavior of the producer in making music abundantly available on a 'try-before-you-buy' model, and these customers reciprocated by paying more than others.¹⁰⁰ The same phenomenon can be observed in other voluntary schemes. The independent game designer Mikolaj Kaminski, for example, endorsed an initially illicit Pirate Bay torrent of his game McPixel with a PWYW plea for donations (“enjoy the game, tell your friends about it, and throw some coins in my general direction if you like it!”). Kaminski explicitly framed his actions as a personal gift from an independent developer who understands that not everyone can afford to pay for games.¹⁰¹ The responses to Kaminski's experiment sometimes (but not often) explicitly reflected a sense of reciprocity: that by encouraging people to download the game for free, Kaminski deserved to be rewarded:

“If you post a discount code for reddit users, I will buy the game without even looking at the video. That's what being a good guy developer gets you.”¹⁰²

Interestingly, in the McPixel experiment, the developer explicitly constructs reciprocity as a cycle, where payment by audience members imposes further obligations: “If someone gives me money, I feel obliged to treat him with due respect, especially when it comes [to] something he

100 Regner, *supra* note 78, at 20.

101 *See* comment by Sosowski: “I can relate as to why people torrent games, and I just wanted them to know that I’m not EA or Activision, and that they should buy it if they like it and can afford it. I gave out the codes for people that cannot afford the game, or have no means of buying it. (Not enough codes, but it was meant to show that I can relate)” at I Am Sos, Who Made McPixel and Gave Out Free Codes on Pirate Bay. Ask Me Anything! : IAmA., http://www.reddit.com/r/IAmA/comments/ydn75/i_am_sos_who_made_mcpixel_and_gave_out_free_codes

102 Comment by “LegoClaes” I am Sos, who made McPixel and gave out free codes on Pirate Bay. Ask me anything! : IAmA., http://www.reddit.com/r/IAmA/comments/ydn75/i_am_sos_who_made_mcpixel_and_gave_out_free_codes.

pays for!”¹⁰³

iv. Commitment

Finally, people sometimes cooperate on moral grounds. A person who knows that the optimal result of a public goods dilemma is for each person to cooperate may choose to follow an internal rule to cooperate in those situations.¹⁰⁴ Amartya Sen has forcefully argued that the theory of rational choice should be expanded to include this type of 'commitment', which is no less rational even if it is not purely self-interested.¹⁰⁵ In the PWYW experiments studied, explicit justifications of this type are less common than others, but there are certainly people who explain that they are motivated to pay because they support the concept or idea of PWYW models:

This is the future of e-goods commerce, and also the solution for a better world[.]
greed makes more greed, selflessness is just awesome :)¹⁰⁶

The disintermediation of creative industries may play a particularly strong role in the commitment that people feel to pay. Large publisher-intermediaries have been caricatured in the public consciousness as untrustworthy, greedy, faceless corporations. In particular, the emergence of new, apparently more fair models of distributing creative works may engender

103 Comment by “kevin jubinville”, *Amanda Palmer: The new RECORD, ART BOOK, and TOUR by Amanda Palmer* » Comments, KICKSTARTER, <https://www.kickstarter.com/projects/amandapalmer/amanda-palmer-the-new-record-art-book-and-tour/comments?cursor=745899&direction=asc>.

104 See John C. Harsanyi, *Rule Utilitarianism, Rights, Obligations and the Theory of Rational Behavior*, 12 THEOR DECIS 115, 122–24 (1980) (outlining a principle of “rational commitment”, where an individual adopts a rule-utilitarian strategy that would maximize social utility if followed by all); but See Rachel T. A. Croson, *Theories of Commitment, Altruism and Reciprocity: Evidence from Linear Public Goods Games*, 45 ECON. INQ. 199–216, 201 (2007) (finding that models of commitment could not explain behavior in laboratory public good experiments).

105 Amartya K. Sen, *Rational Fools*, 6 PHILOSOPHY & PUBLIC AFFAIRS 317, 327 (1977) (arguing that economists should accept an expanded view of rationality to include commitment, not just self-interest).

106 Comment by solidox, 2D Boy, Pay-What-You-Want Birthday Sale Results, *supra* note 83.

greater levels of support for independent producers amongst those who have grown dissatisfied with existing copyright business models.¹⁰⁷

c. Summary: a better model of the copyright consumer

The success of a wide variety of pay-what-you-want schemes, although not widespread, suggests that conventional accounts of copyright are very much incomplete. Ultimately, decisions to pay are socially constructed, and no single explanation exists for why people choose to cooperate rather than free-ride.¹⁰⁸ The reasons individuals cooperate are likely to be highly varied,¹⁰⁹ and it may be difficult to differentiate between self-interested and altruistic cooperation in real world settings.¹¹⁰ What we do know is that human beings are complex social creatures, and their actions are influenced by social norms.¹¹¹ They are also self-interested, and will often respond to incentives. Put simply, individuals like to do what they consider to be right, and they like to do what is best for themselves.¹¹² Whether a given individual will cooperate is a function of their own self-interest, their trust that others will reciprocate, and the complex patterns of

107 *But see* Andrew Moshirnia, *Giant Pink Scorpions: Fighting Piracy with Novel Digital Rights Management Technology*, 23 DEPAUL JOURNAL OF ART, TECHNOLOGY & INTELLECTUAL PROPERTY LAW 1, 44–45 (2012) (noting that justifications for infringement often center on the size and behavior of the publishers, but that rates of infringement are broadly similar across small to large publishers in the games industry); *See further* Fernando Machado & Rajiv K. Sinha, *The Viability of Pay What You Want Pricing* 14 (“if the seller is a small local business, consumers will perceive the act of paying zero (or a very small amount) as being considerably more harmful or more likely to cause harm than if they were buying from a large national corporation or a chain store. Furthermore, consumers tend to feel more proximate to local businesses than to national or international firms”).

108 Belsky et al., *supra* note 50, at 38 (arguing that “human beings have diverse motivational-behavioral profiles.”).

109 Charles M. Schweik & Robert English, *Preliminary Steps Toward a General Theory of Internet-Based Collective-Action in Digital Information Commons*, 7 INTERNATIONAL JOURNAL OF THE COMMONS 234 (2013).

110 West et al., *supra* note 61, at 427.

111 Andreoni, *supra* note 92, at 464 (“Clearly social pressure, guilt, sympathy, or simply a desire for a ‘warm glow’ may play important roles in the decisions of agents.”).

112 Fehr & Gintis, *supra* note 70 (arguing that neither the model of Homo Economicus or that of Homo Sociologicus explain human behavior, and that instead society consists of a heterogenous mix of strong reciprocators and self-interested individuals).

social norms that structure and construct their interaction.¹¹³ It is apparent, then, that the model of the consumer as a rational actor that underpins copyright law, a user who “is trying to get away with paying less than the market price for a particular cultural good”,¹¹⁴ is misguided. This rational economic model of the user captures only the self-interested motivations of audiences, and ignores the messy social situatedness of decision-making.¹¹⁵ Understanding the motivations of consumers requires understanding both the incentives presented to individuals and the norms of the group.

Part III. Explicitly introducing fairness to copyright

The way that current copyright business models ignore the role of reciprocity and fairness undermines the legitimacy of copyright law and likely increases rates of free-riding and infringement.¹¹⁶ Standard discussions about copyright reform focus on deterring infringement through legal penalties and increasing the efficiency of copyright markets.¹¹⁷ These discussions treat social norms not as an integral determinant of free-riding, but as a mere reflection of behavior to be changed through the operation of law. Because legal penalties are rare, most

113 Ostrom, *A Behavioral Approach to the Rational Choice Theory of Collective Action*, *supra* note 65, at 12–13; *See also* Roland Bénabou & Jean Tirole, *Incentives and Prosocial Behavior*, 96 *THE AMERICAN ECONOMIC REVIEW* 1652, 1654 (2006) (arguing that “agents’ prosocial or antisocial behavior reflects an endogenous and unobservable mix of three motivations: intrinsic, extrinsic, and reputational, which must be inferred from their choices and the context.”).

114 Julie E. Cohen, *The Place of the User in Copyright Law*, 74 *FORDHAM LAW REVIEW* 347, 351 (2005).

115 *See id.* at 370–73 (arguing that the law should recognize the “situated user”).

116 *See* Litman, *Real Copyright Reform*, *supra* note 38, at 31 (“The deterioration in public support for copyright is the gravest of the dangers facing the copyright law in a digital era.”).

117 *See, e.g.*, the recent UK review of the IP system: Ian Hargreaves, *Digital Opportunity: A Review of Intellectual Property and Growth*, Text 30 May 18, 2011 (emphasizing the importance of licensing and recommending the development of a digital copyright exchange: “the answer to the machine is in the machine”).

recent law reform debate has focused on increasing the severity¹¹⁸ and regularity of punishments.¹¹⁹ The problem is, however, that for the portion of users who do fundamentally want to support producers, an increasingly punitive copyright system is likely to be seen as unfair and thereby increase their willingness to free-ride. To make things worse, this increasing strength of copyright tends to further disconnect the law from practice and social norms,¹²⁰ and the reputation music industry has acquired for exploiting artists¹²¹ has greatly reduced the perceived fairness of copyright business models. At the same time, the intermediated, transactional nature of digital copyright markets reduces the link between authors and their audiences and likely further diminishes their desire to pay.¹²² The copyright industries have attempted to shift social norms back in their favor, but their attempts have been somewhat clumsy to date.¹²³ No wonder, then, that users often infringe copyright – as the fairness norm around paying for access weakens, people will more often act as rational actors. Since the

118 See, e.g., Andrew Trotter, *Statutory Damages in Copyright*, 21 AUSTRALIAN INTELLECTUAL PROPERTY JOURNAL 219, 234–35 (2010) (discussing the punitive role of statutory damages in copyright).

119 See Cohen, *Pervasively Distributed Copyright Enforcement*, *supra* note 44 (explaining the decentralization of copyright enforcement); See further Nicolas Suzor & Brian Fitzgerald, *The Legitimacy of Graduated Response Schemes in Copyright Law*, 34 UNIVERSITY OF NEW SOUTH WALES LAW JOURNAL 1 (2011) (discussing the attempts to increase the regularity of punishments by pushing responsibility for monitoring and enforcement to private intermediaries in “three-strike” or “graduated response” regimes).

120 See Jane C. Ginsburg, *How Copyright Got a Bad Name for Itself*, 26 COLUM. J.L. & ARTS 61 (2002) (explaining the role of “greed” in lessening the legitimacy of copyright law); See further J. Tehranian, *Infringement Nation*, UTAH L. REV. 537 (2007) (explaining the gap between copyright law and reality).

121 See Steve Albini, *The Problem With Music*, THE BAFFLER, Nov. 1, 1993, at 31.

122 See Belsky et al., *supra* note 50, at 54 (suggesting the importance of “[framing] the exchange of music as more than a monetary transaction.”).

123 While industry campaigns over the last four decades have had some success in shifting attitudes, there have also been the subject of intense derision, from “Home taping is killing music” in the 1980s to “You wouldn’t steal a car” advertisements in 2000s. See generally Majid Yar, *Teenage Kicks or Virtual Villany? Internet Piracy, Moral Entrepreneurship, and the Social Construction of a Crime Problem*, in CRIME ONLINE 95 (Yvonne Jewkes ed., 2013) (discussing the social construction and contestation of “piracy”); See further James Grimmelmann, *Ethical Visions of Copyright Law*, 77 FORDHAM LAW REVIEW 2005, 2019–21 (2009) (explaining competing rhetoric in copyright discourse).

likelihood of getting caught is still minuscule, free-riding is often the rational choice. If copyright law is to be respected and followed, it must reflect a fair social bargain. For copyright policy and industry practice, this likely means less stick and more carrot: focusing less on increasing the deterrence of copyright law through harsher and more regular enforcement, and instead encouraging the non-economic (social) motivations of audiences to support cultural production.

Some producers in the creative industries have developed a fuller understanding of the mix of motivations for people to act and have experimented with methods of inculcating and supporting prosocial norms amongst their audiences. The rise of crowdfunding provides an excellent example. Producers who run successful crowdfunding campaigns usually have strong networks of fans who fundamentally want to support them¹²⁴ as well as incentives in the form of exclusive rewards or value-added goods and services. Since the launch of Kickstarter, crowdfunding has rapidly become extremely popular.¹²⁵ Producers who are able to create strong connections with their fans are able to greatly reduce their risk and cost of borrowing – and therefore also their expected profits.¹²⁶

The art of providing both incentives and supporting reciprocal norms is rapidly being learned, and techniques refined, in individual experiments all across the creative industries. Highly successful design in PWYW schemes generally achieve three things: they provide attractive private incentives; they craft social norms that enhance the cooperative motives; and

124 Ajay Agrawal et al., *Crowdfunding* (2013).

125 Kickstarter alone has raised over \$1bn in pledges: *One Billion Dollars*, KICKSTARTER (Mar. 3, 2014), <https://www.kickstarter.com/1billion>.

126 Ajay Agrawal et al., *Some Simple Economics of Crowdfunding*, in 14 INNOVATION POLICY AND THE ECONOMY 11 (Josh Lerner & Scott Stern eds., 2013) (arguing that crowdfunding provides artists with “a lower cost of capital, and... access to more information.”).

they manage to balance the two forces so that private incentives don't crowd out generosity by making cooperators feel like suckers. Belsky et al provide a preliminary list of design choices that might be applied in PWYW models to encourage payment, focusing on developing personal connections with consumers; demonstrating trustworthiness, authenticity, and transparency; developing a sense of fairness, moral obligation, and a social norm of cooperation; providing autonomy; crafting the right mix of rewards and (less rarely) punishments; and leveraging social networks.¹²⁷ Retailers like Humble Bundle and producers using crowdfunding sites like Kickstarter are very quickly building expertise in combining these techniques to maximize their revenue.

Take, for example, independent game developer Double Fine's crowdfunding campaign for a recently released game, *Broken Age*. Double Fine, led by the legendary Tim Schafer, built on its established reputation to ask the crowd to fund the production of a new adventure game. In the largest successful Kickstarter campaign to date, Double Fine raised \$3.3M, well above its \$400k goal.¹²⁸ The final game, recently released, was made available to early backers at discounted price of \$15, and opened in wider retail to the rest of the world for \$24.99. Through crowdfunding, Double Fine was able to finance an independently produced video game that apparently would not have been possible to fund through a conventional publisher.¹²⁹ Double Fine was able to substantially reduce its risk profile by securing funds in advance through

¹²⁷ Belsky et al., *supra* note 50, at 51.

¹²⁸ Patrick Shaw, *Double Fine Adventure Kickstarter Nets \$3.3M*, WIRED (Mar. 4, 2012), <http://www.wired.com/gamelifelife/2012/03/double-fine-adventure/>.

¹²⁹ In a promotional video, co-creator Tim Schafer explained he was *Seeking* funding through Kickstarter because “If I were to go to a publisher right now and pitch an adventure game, they’d laugh in my face.” See *Double Fine Adventure*, KICKSTARTER, <http://www.kickstarter.com/projects/doublefine/double-fine-adventure>.

preorders and cross-subsidies; it was then potentially able to supplement this with its own or borrowed funds if necessary, at a greatly reduced risk. Consumers benefited from being able to access a new game, at a discounted price, earlier than the general public. Potentially, although it is hard to be sure, the game might also be judged to be better under these conditions—the developer might be able to take more creative risks and deliver a more polished product without the pressures and constraints that publishers bring to game development.¹³⁰ The way that Double Fine were able to engage their audience provides a key example of how producers are able to develop mutually beneficial relationships with customers that develops real enthusiasm for backers to pay.

This increased understanding of cooperative norms shows substantial promise for producers in the creative industries who have long been worried about rates of free-riding. Part of the attraction of these models is that they provide 'endogenous price discrimination'¹³¹ – by allowing consumers to select their own price points, they are able to satisfy more consumer demand and potentially capture more consumer surplus than if producers had to pick a single price. The real beauty of these models, though, is that they put fairness at the heart of copyright.¹³² By structuring transactions as voluntary but providing strong economic incentives

130 See Robin Potanin, *Forces in Play*, PROCEEDINGS OF THE 3RD INTERNATIONAL CONFERENCE ON FUN AND GAMES 135, 136–37 (Fun and Games '10, New York, NY, USA, ACM 2010) (describing pressures on developers from publishers in the games industry, and arguing that “Economics does not encourage diversity in the games industry.”); See further Mia Consalvo, *Crunched by Passion*, BEYOND BARBIE AND MORTAL KOMBAT. (2008) (discussing pressures faced by game developers).

131 See Mark R. Isaac et al., *The Pay-What-You-Like Business Model: Warm Glow Revenues and Endogenous Price Discrimination* (2010).

132 It is important to note that many conventional copyright licensing transactions certainly do leverage reciprocity and fairness norms, just not as explicitly: *Id.* at 440 (“consumers’ warm glow values are built in to the posted price calculations, and many are purchasing a product for far more than their intrinsic valuation for it.”).

and social rewards for payment, they might be able to achieve normative legitimacy in a way that other copyright business models have not been able to.

To an extent, this movement is well underway. While industry lobby groups are still committed to strengthening copyright domestically¹³³ and abroad,¹³⁴ business practice and copyright reform processes are also starting to converge on limiting free-riding by satisfying consumer demands through appropriate pricing¹³⁵ and establishing more efficient markets for rights clearances.¹³⁶ The teleology of digital business models in mainstream thought continues to point towards a 'celestial jukebox'¹³⁷ model of content distribution,¹³⁸ idealized now in the app stores, digital music stores, streaming music and video services that enable unprecedented access to the copyright market for both consumers and producers.¹³⁹ As these forces converge, the arc of copyright seems to continue inexorably towards this vision of a perfected copyright market, fair and convenient enough to be respected, but strong enough to be feared.¹⁴⁰

133 See, e.g., Annemarie Bridy, *Graduated Response American Style*, 23 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 1 (2012) (discussing the recently introduced “copyright alert system”).

134 Sean M. Flynn et al., *U.S. Proposal for an Intellectual Property Chapter in the Trans-Pacific Partnership Agreement*, *The*, 28 AM. U. INT’L L. REV. 105 (2012).

135 See Joe Karaganis, *Rethinking Piracy*, in MEDIA PIRACY IN EMERGING ECONOMIES 66 (Karaganis, Joe ed., 2011) (noting a shift in industry practice towards recognizing piracy as unmet consumer demand).

136 See, e.g., Hargreaves, *supra* note 117, at 30 (Discussing copyright licensing and recommending the establishment of a Digital Copyright Exchange: “It is widely acknowledged that the solution to these difficulties lies in the very technologies that created the problem. Just as digital technologies provide new and exciting ways of using content, they offer a means of transforming the efficiency of licensing. As the submission from the European Publishers Council states: “the answer to the machine is in the machine”).

137 See generally PAUL GOLDSTEIN, *COPYRIGHT’S HIGHWAY* (2003).

138 Nicolas Suzor, *Access, Progress, and Fairness*, 15 VAND. J. ENT. & TECH. L. 297, 313–14 (2013).

139 Ben Goldsmith, *The Smartphone App Economy and App Ecosystems*, in THE ROUTLEDGE COMPANION TO MOBILE MEDIA (Gerard Goggin & Larissa Hjorth eds., 2013) (describing growth in the apps industry aligned with increase in smartphone and tablet use).

140 Suzor, *supra* note 138, at 301–2.

Part IV. 'Peaceful revolutions'

While using reciprocity norms is key to increasing the efficacy of current digital distribution models, perfecting the celestial jukebox may not be the best end-goal for copyright. It has long been thought that copyright, which provides a property right to exclude free-riders, is the 'least objectionable' means of remunerating creators and publishers.¹⁴¹ The fact that consumers will often voluntarily choose to support creative production indicates that we should seriously reconsider this assumption. In this part, I suggest that not only are cooperative systems of coordinating cultural production possible, but where they are effective, they are likely to be *better* than conventional copyright systems.

In game theoretical terms, the decision of individuals to free-ride or to pay to support the production of cultural goods is thought of in terms of a prisoners' dilemma,¹⁴² where the dominant strategy is always to 'defect' or free-ride.¹⁴³ There are two fundamental flaws with this justification for copyright. The first is that cultural production does not have to be a prisoners' dilemma.¹⁴⁴ The tragedy of the commons is a prisoners' dilemma because free-riders end up

141 See GASTON, *supra* note 16 ("It is desirable that we should have a supply of good books; we cannot have such a supply unless men of letters are liberally remunerated; and the least objectionable way of remunerating them is by means of copyright.").

142 See, e.g., Wendy J. Gordon, *Asymmetric Market Failure and Prisoner's Dilemma in Intellectual Property*, 17 U. DAYTON L. REV. 853, 869 (1991) (arguing that "If creation is expensive, if access is often easy and copying is usually cheap, and if there are competing creators and copyists, this combination of features is likely to lead to a prisoner's dilemma situation in which legal rights may be required to encourage productive behavior."); Russell Hardin, *Collective Action as an Agreeable N-Prisoners' Dilemma*, 16 BEHAVIORAL SCIENCE 472 (1971) (modeling collective action as an n-person prisoners' dilemma).

143 ANATOL RAPOPORT, PRISONER'S DILEMMA 34–36 (University of Michigan Press 1965) (describing the structure of a prisoners' dilemma).

144 See Kollock, *supra* note 95, at 189–90 (noting the "common mistake" of assuming that public goods games are all prisoners' dilemmas).

destroying the pasture through overuse.¹⁴⁵ But since information is non-rival and non-exhaustible, while free-riders do not contribute towards the costs of production, they do not actually harm others. It is accordingly possible to design schemes where being a 'sucker' by cooperating when others do not is not the worst outcome.

The second flaw in the conventional story is that, as we have seen, even when cultural production is a prisoners' dilemma, users do not in fact always free-ride in the way that classical economic theory predicts. The abstraction of the prisoner's dilemma relies on an artifice that the prisoners can't communicate – or won't trust each other if they can.¹⁴⁶ In fact, humans have long overcome cooperative dilemmas through communication. The mere ability to talk enhances cooperation,¹⁴⁷ allowing participants to build trust by obtaining some form of (unenforceable) social assurances that others will cooperate.¹⁴⁸ By communicating, participants are also able to construct fairness norms amongst themselves – including guilt and shame as well as social rewards for cooperation.¹⁴⁹ More formally, by working together, humans can also develop cooperative institutions that develop, monitor, and enforce social norms to increase trust and

145 Garrett Hardin, *supra* note 20.

146 Sally, *supra* note 94, at 59–60.

147 *See id.* at 78 (conducting a metastudy of 130 experiments of prisoner's dilemma games involving over 5000 participants, and concluding that communication increases rates of cooperation by approximately 40%); Ostrom, *A Behavioral Approach to the Rational Choice Theory of Collective Action*, *supra* note 65, at 6 (“consistent, strong, and replicable findings are that substantial increases in the levels of cooperation are achieved when individuals are allowed to communicate face to face.”).

148 *See* generally Tore Ellingsen & Robert Östling, *When Does Communication Improve Coordination?*, 100 THE AMERICAN ECONOMIC REVIEW 1695 (2010) (providing a model that predicts that communication is likely to increase cooperation in certain games, at least where there is no strong temptation for participants to deceive others).

149 Belsky et al., *supra* note 50, at 59.

limit free riding.¹⁵⁰

These two findings challenge the economic *raison d'être* of copyright law. They imply that it might be possible to use both incentives and reciprocity norms to design alternate systems that can support routine cultural production without excluding free-riders. To the extent that this is true, there is a good chance that cooperative systems are likely to provide better outcomes than conventional copyright systems. Take, for example, Amanda Palmer's album, *Theatre is Evil*, which Palmer self-released in 2012 after raising more than \$1.19M in what was the most successful music Kickstarter project to date at the time.¹⁵¹ Palmer raised enough money through the campaign to allow her to create the album, organize a tour, and produce and deliver the perks backers ordered. Palmer's final profit on the project was apparently up to \$100,000.¹⁵² Like Double Fine, Palmer relied heavily on both value-added goods and services and a personal relationship with her fans to convince them to pay. Unlike Double Fine, however, once the project was produced, Palmer released it on her website under PWYW terms and a Creative Commons *Attribution ShareAlike Non-Commercial* license.¹⁵³ Having already recouped her costs, Palmer was able to take this move with no risk that she would be out of pocket. For Palmer's audience, the use of PWYW pricing enables much greater distribution. In this model, the social

150 See Elinor Ostrom, *Building Trust to Solve Commons Dilemmas*, in *GAMES, GROUPS, AND THE GLOBAL GOOD* 207, 221 (Simon A. Levin ed., 2009) (discussing the role of context and structure in building trust and reciprocity in collective action).

151 Tom Cheredar, *Amanda Palmer attracts over \$1M in the biggest Kickstarter music deal ever*, VENTUREBEAT (Jun. 2, 2012), <http://venturebeat.com/2012/06/02/amanda-palmer-kickstarter-2/>.

152 See Amanda Palmer, *all you ever wanted to know about all this kickstarter money & where it's going.*, AMANDA PALMER: THE NEW RECORD, ART BOOK, AND TOUR (May 23, 2012), <http://www.kickstarter.com/projects/amandapalmer/amanda-palmer-the-new-record-art-book-and-tour/posts/232020>.

153 Palmer, *Theatre is Evil Digital*, *supra* note 8.

cost of deadweight loss typically associated with monopoly prices is almost eliminated.¹⁵⁴

Palmer's fans personalize this abstract gain, commonly expressing gratitude for being able to access the album for free when they otherwise would not be able to afford it:

“right now there is no possible way i can afford your album, even though i want to pay for it so so badly. ... as soon as things [stabilize], i'm on my feet again, and i have a steady income flowing i will pay you every dollar you deserve.”¹⁵⁵

Strikingly, the proportion of Palmer's fans who chose to support the project do not appear to resent free-riders. These people do not think of themselves as 'suckers', but instead often express their gratitude to Palmer for enabling them to participate and contribute to the production process. Conceivably, there may be people who do feel like suckers and either did not pledge or did not publicly complain, but the important point is that there were more than enough fans who wanted to be involved to fund Palmer's production costs and the subsequent free release of her album.

While this form of using crowdfunding to fund the free release of creative works is not as popular as crowdfunding that operates on conventional copyright principles, there are still many other successful examples. A wide variety of producers in various creative industries from around the world have been able to develop cooperative systems of funding professional 'commons-based' cultural production, where the knowledge and cultural goods are made widely

154 See further Choong Hee Lee et al., *Research on Public Remuneration of Open Content Based on Collective License*, 14 INNOVATION : MANAGEMENT, POLICY & PRACTICE 576, 577 (2012) (discussing collective licensing as a means to fund openly licensed content, and arguing that the “major advantage of this institutional change is the removal of the social cost from monopolistic price-conditional access and usage.”).

155 Comment by “Kimi” Palmer, *Theatre is Evil Digital*, *supra* note 8.

available at zero cost (and sometimes on 'open'¹⁵⁶ licensing terms that permit almost unlimited modification and reuse). The Spanish site Goteo is a crowdfunding site specifically designed to fund open projects and public goods ranging from renewable energy systems¹⁵⁷ to openly licensed music.¹⁵⁸ Thousands of producers have used other crowdfunding sites to fund openly licensed projects,¹⁵⁹ including recorded and sheet music,¹⁶⁰ textbooks and other educational works,¹⁶¹ software,¹⁶² films,¹⁶³ and many more. Other smaller, purpose specific commons-crowdfunding sites have also emerged, bringing people together to pay the costs of producing

156 Formally, “open” in this context means that the information resources available at low or zero cost, with little restriction on reuse, modification, or distribution. See Open Knowledge Foundation Network, *Open Definition*, OPEN DEFINITION (n.d.), <http://opendefinition.org/>; cf Free Software Foundation, *The Free Software Definition* (Feb. 17, 2014), <https://www.gnu.org/philosophy/free-sw.html>; and Debian Social Contract (Apr. 26, 2004), http://www.debian.org/social_contract (providing alternate definitions of “free” that pre-date and inspired the Open Knowledge Foundation Network’s definition of “open”).

157 CITCEA, *Renewable electricity generation by using residual biomass gasification in the Republic of Chad*, GOTEU.ORG (n.d.), <http://goteo.org/project/gasificador-opensource-en-el-chad>.

158 See, e.g., *COLABORA EN EL PRIMER DISCO DE SUNNARE*, GOTEU.ORG, <http://goteo.org/project/colabora-en-el-primer-disco-de-sunnare1> (a campaign to fund the production of an openly licensed album by Spain-based band Sunnare).

159 For a list of Kickstarter projects which feature Creative Commons licensing, See *Creative Commons*, KICKSTARTER, <https://www.kickstarter.com/pages/creativecommons>.

160 See, e.g., Musopen, which has successfully crowdfunded both an online database of public domain sheet music and an effort to record and freely (CC0) release Chopin’s music: Aaron Dunn, *Set Chopin Free by Aaron Dunn*, KICKSTARTER, <https://www.kickstarter.com/projects/Musopen/set-chopin-free>.

161 See, e.g., the successfully funded and complete computer programming textbook “The Rook”’s Guide to C++’ (Jeremy Hansen, *The Rook’s Guide to C++ - A Creative Commons-Licensed Text*, KICKSTARTER, <https://www.kickstarter.com/projects/261336366/the-rooks-guide-to-c-a-creative-commons-licensed-t>); ; See also Smarthistory: a multimedia web-book about art and art history, <http://smarthistory.khanacademy.org/> (a successfully Kickstarted online history encyclopaedia which is free for the public to access and whose entries are Creative Commons- licensed).

162 Better-known projects include nonprofit Facebook alternative Disapora, which was successfully funded on Kickstarter in 2010 after raising \$200,641 against its goal of \$10,000 but struggled to attract market success after completion: See *Decentralize the web with Diaspora*, KICKSTARTER, <http://www.kickstarter.com/projects/mbs348/diaspora-the-personally-controlled-do-it-all-distr>; See further Crowdfunded free software, <http://cffsw.modernthings.org/>, a database of openly licensed software crowdfunding projects.

163 See, e.g., Bassam Kurdali, *The Tube Open Movie by Bassam Kurdali*, KICKSTARTER, <https://www.kickstarter.com/projects/1331941187/the-tube-open-movie> (a successfully funded “experimental animation”).

open works for the benefit of others.¹⁶⁴

At a much larger scale, Wikimedia runs an annual fund-raising drive to “keep Wikipedia free”¹⁶⁵ to pay for the ongoing costs of running Wikipedia. Wikimedia's income is derived almost solely through donations (\$44.6M in 2013),¹⁶⁶ most of which apparently come from individual donors. In the field of scholarly publishing, universities, learned societies, philanthropic funds, and public grantmaking agencies provide substantial support for the costs of publishing over 9,800 open access academic journals, which make more than 1.5 million scholarly articles available for free to the world at large.¹⁶⁷ The SCOAP³ project, led by CERN, has brought together a consortium of “more than a thousand libraries, funding agencies and research consortia across the world”¹⁶⁸ and negotiated an agreement with the publishers of ten journals to publish the great majority of research articles in particle physics as open access for three years from 2014.¹⁶⁹ Knowledge Unlatched, a similar project in the humanities and social sciences (HASS), has signed up nearly 300 libraries around the world to its pilot program to publish 28 monographs from established presses under open access licenses.¹⁷⁰ Other examples

164 See, e.g., note 48 (crowdfunding open access book publishing); Nick Liow, *The Open Game Art Bundle*, COMMONLY.CC, <http://open.commonly.cc/> (crowdfunding the public domain release of computer game art assets).

165 From Wikipedia founder Jimmy Wales, WIKIMEDIA (2011), https://wikimediafoundation.org/wiki/Keep_Wikipedia_Free (last visited Feb 16, 2014).

166 In 2013, \$44.6M of Wikimedia's \$48M revenue came from “donations and contributions”: Wikimedia, Financial Statements, Years Ending June 30, 2013 and 2012 (2013).

167 The Directory of Open Access Journals currently lists 9804 journals from 124 countries, giving access to a total of more than 1.5 million articles: See <http://www.doaj.org/>

168 Richard Van Noorden, *Open-Access Deal for Particle Physics*, 489 NATURE 486 (2012).

169 European Organization for Nuclear Research, Open Access publishing initiative, SCOAP³, to start on 1 January 2014 3 (Dec. 5, 2013), <http://press.web.cern.ch/press-releases/2013/12/open-access-publishing-initiative-scoap3-start-1-january-2014>.

170 Knowledge Unlatched, Press Release: Knowledge Unlatched Pilot Collection to become Open Access, *supra*

abound in academia, including encyclopedias¹⁷¹ and news outlets¹⁷² that use collaborative funding models to make professionally-produced resources available to the public.

These are all examples of what Peter Suber calls 'peaceful revolutions': systems of production that greatly increase the dissemination of knowledge and culture by flipping copyright business models to cooperative ones.¹⁷³ The great promise of these systems is their potential to sustain commons-based models of production for the typical core of costly, mass market professional production in the creative industries. If they can do this, there is a good chance that they represent a more efficient and more desirable mechanism of coordinating production than conventional copyright does.

a. Cooperation at scale: three structural changes

So far, we have seen a series of examples of one-off, isolated experiments. Could they work at a larger scale? Even if there are enough conditional cooperators in a population to routinely fund the costs of cultural production, behavioral public goods experiments show that while people may cooperate at first,¹⁷⁴ conditional cooperators reduce their contributions in the

note 11.

171 Edward Zalta, *The Stanford Encyclopedia of Philosophy A University/library Partnership in Support of Scholarly Communication and Open Access*, 67 COLL. RES. LIBR. NEWS 502 (2006) (describing university and library funding for an online academic encyclopedia).

172 See The Conversation, 2012 Stakeholder Report.

173 SUBER, *supra* note 12, at 146. Note that while Suber was specifically discussing large-scale collaborative institutions in Open Access, the analysis is more broadly applicable.

174 Ostrom, *A Behavioral Approach to the Rational Choice Theory of Collective Action*, *supra* note 65, at 5 (“Most experimental studies of social dilemmas with the structure of a public-goods provision problem have found levels of cooperative actions in one-shot games, or in the first rounds of a repeated game, that are significantly above the predicted level of zero.”)

presence of free-riders.¹⁷⁵ Why then, would we have any reason to believe that people would voluntarily pay, as Zimmerman asks, “when they know that their contributions also support hundreds, if not thousands, of free riders”?¹⁷⁶

In the sections that follow, I explain three categories of structural approaches that suggest that cooperation may be workable at scale for funding commons production in the core of professional cultural production. If the decision of people to free-ride or not is based on both their self-interest and their evaluation of the chance that others will cooperate as well, increasing cooperation requires either targeting their incentives or insulating the cooperators from the free-riders. The first category focuses on changing incentive structures to provide incentives for the rational actors who value the goods to contribute rather than free-ride. The second examines how cooperators can be protected from free-riders who sap their motivation to participate. The third category turns to consider how groups can build more formal institutions to enable large-scale cooperation over time by creating social norms and enforcement mechanisms that facilitate repeated interactions between relatively stable groups of actors. Each of these methods works because markets for copyright goods are malleable social structures that can be modified to enhance cooperation.

i. Incentives for econs

The first route to ensuring that self-interested econs¹⁷⁷ do not spoil the motivations of

175 H. Gintis et al., *Explaining Altruistic Behavior in Humans*, 24 *EVOLUTION AND HUMAN BEHAVIOR* 153, 160–61 (2003); Fischbacher et al., *supra* note 70, at 397; Fehr & Gintis, *supra* note 70, at 50.

176 Diane Leenheer Zimmerman, *Authorship Without Ownership*, 52 *DEPAUL L. REV.* 1121, 1150 (2002).

177 *See* RICHARD H. THALER & CASS R. SUNSTEIN, *NUDGE IMPROVING DECISIONS ABOUT HEALTH, WEALTH, AND*

conditional cooperators is to provide them with incentives to cooperate. In these situations, cooperation is a case of 'mutual benefit', where the party who bears the costs of cooperation also derives a direct benefit that outweighs the cost.¹⁷⁸ One of the most common ways to convince consumers to pay for free goods is to cross-subsidize from complementary value-added goods and services.¹⁷⁹ This is at the core of Masnick's equation, which relies on using the visibility of infinitely reproducible intangibles to increase demand for scarce goods and services.¹⁸⁰ In both commons and conventional crowdfunding models, for example, backers might get value-added goods or services that are denied to the general public – private or club goods that provide a strong incentive to pay.¹⁸¹ For creative projects, contributors might get exclusive perks such as having their name listed in the film credits, limited editions, backstage passes, autographed works, and so on.¹⁸² While good data is not available, cross-subsidies certainly seem to play

HAPPINESS 6–8 (2008) (drawing a distinction between “humans” and “econs”: “Econs respond primarily to incentives.”).

178 West et al., *supra* note 61, at 418.

179 Hal Varian, *Public Goods and Private Gifts* (2013).

180 Mike Masnick, *The Grand Unified Theory On The Economics Of Free*, TECHDIRT (May 3, 2007), <http://www.techdirt.com/articles/20070503/012939.shtml> (arguing that content creators should “[s]et the infinite components free, syndicate them, make them easy to get -- all to increase the value of the scarce components”); *See also* ANDERSON, FREE, *supra* note 43 (explaining cross-subsidies in “free” business models).

181 Paul Belleflamme et al., *Individual Crowdfunding Practices*, 15 VENTURE CAPITAL 313, 317 (2013) (contrasting equity- and donation-based crowdfunding with reward-based crowdfunding, which “allows crowdfunders to receive a nonfinancial benefit in return to their financial contributions (e.g., credit on an album, pre-ordering of products or services).”).

182 Kappel, *supra* note 45, at 376 (In return for their funding, “financial contributors typically receive ‘patronage perks’ such as use of their name in the film credits or album liner notes, advanced autographed copies of the work, or backstage access at a performer’s show.”); *See, e.g.*, Nine Inch Nails, *Ghosts - Order Options*, NINE INCH NAILS: GHOSTS I-IV - ORDER (n.d.), http://ghosts.nin.com/main/order_options (Nine Inch Nail’s PWYW scheme for Ghosts allowed consumers to pay up to \$300 for an ultra-deluxe limited edition package); *See also* Amanda Palmer: *The new RECORD, ART BOOK, and TOUR by Amanda Palmer* » Updates, KICKSTARTER (May 23, 2012), <https://www.kickstarter.com/projects/amandapalmer/amanda-palmer-the-new-record-art-book-and-tour/posts?page=5> (offering not only physical goods and signed limited editions, but also higher rewards such as hosting a party at the home of backers who paid \$5000, or holding an art-sitting to paint a canvas portrait of backers who paid \$10,000).

some important role in encouraging audiences to pay for works they could otherwise get for free. Participants frequently discuss their desires for limited edition goods – this example from a backer of Amanda Palmer's Kickstarter campaign is indicative: “After days of dithering, I just upped my pledge to \$125, 'cause I reeeeeeeally want that art book.”¹⁸³ For people who value the exclusive goods or services, then, cross-subsidies transforms the prisoners' dilemma of choosing whether to pay for cultural works into a much less problematic consumer transaction.¹⁸⁴ In cases where demand is high enough, this can be a very successful way to fund the production of open works.¹⁸⁵

A different approach relies on producers raising funds *ex ante* and withholding the production or release of free cultural works until a certain threshold has been raised. This is the 'Street Performer Protocol':¹⁸⁶ if all goes well, once the threshold has been met, the new work is released to the public for free, to the mutual benefit of all involved – creators, publishers, patrons and, importantly, also to the free-riders who might enjoy the work but did not contribute to its funding. Stephen King provided one of the first high-profile tests of this new model with his serialized novel *The Plant* in 2000.¹⁸⁷ Readers had the option to download each installment for free, but King asked that readers pay at least \$1 for each download of the first three installments

183 Comment by Valerie Allen, note 103.

184 *But see* Joëlle Farchy, *supra* note 23, at 251 (raising concerns that cross-subsidization models enhance the power of manufacturers and distributors).

185 *But see* Peter K. Yu, *Digital Copyright and Confuzzling Rhetoric*, 13 VAND. J. ENT. & TECH. L. 881, 905–6 (2010) (doubting the overall impact of cross-subsidies in funding creative projects).

186 John Kelsey & Bruce Schneier, *The Street Performer Protocol and Digital Copyrights*, 4 FIRST MONDAY (1999); *See further* Kylie Veale, *Internet Gift Economies*, 8 FIRST MONDAY (1996-2003, 2003).

187 *See* William A. Fischer, *Stephen King and the Publishing Industry's Worst Nightmare*, 13 BUSINESS STRATEGY REVIEW 1 (2002).

of the work and at least \$2 for each download of the following three installments. King promised that so long as at least 75 per cent of downloaders continued to pay, he would continue to write installments.

King's experiment illustrates how producers can restructure markets for digital goods to escape the prisoners' dilemma. In a prisoners' dilemma, the worst possible outcome is to be a 'sucker' who cooperates when others do not.¹⁸⁸ By contrast, in the Street Performer Protocol, where the good has not yet been produced, the worst possible outcome – at least for fans – is that too many people free-ride and the good is not produced. This a snowdrift game, so called because when you are faced with a snowdrift blocking a road, it is better to shovel it out of the way than to do nothing, better still if everyone shovels, best if someone else shovels while you do nothing, and worst for everyone if nobody picks up a shovel.¹⁸⁹

Unlike the Prisoner's Dilemma of conventional cultural production, we can expect a positive level of cooperation in ex ante crowdfunding models where the benefit of getting access to the final product outweighs the cost of being a sucker.¹⁹⁰ Fans of Stephen King's work who want to see *The Plant* produced, for example, have a strong incentive to pay King's ransom.

188 Russell Hardin, *Collective Action as an Agreeable N-Prisoners' Dilemma*, 16 BEHAVIORAL SCIENCE 472, 473–74 (1971).

189 Kollock, *supra* note 95, at 188–92; D.F. Zheng et al., *Cooperative Behavior in a Model of Evolutionary Snowdrift Games with N-Person Interactions*, 80 EPL 18002 (2007); These are also called “chicken” games, when you gain the most if the oncoming truck swerves and you do not have to go out of your way to avoid it, but lose the most in the ensuing crash when both people choose to defect: Irwin Lipnowski & Shlomo Maital, *Voluntary Provision of a Pure Public Good as the Game of “chicken,”* 20 JOURNAL OF PUBLIC ECONOMICS 381 (1983).

190 Marco Archetti & István Scheuring, *Evolution of Cooperation*, 299 JOURNAL OF THEORETICAL BIOLOGY 9 (2012); Michael Doebeli & Christoph Hauert, *Models of Cooperation Based on the Prisoner's Dilemma and the Snowdrift Game*, 8 ECOLOGY LETTERS 748 (2005).

Their best strategy is to sometimes voluntarily pledge, with a probability that takes into account the cost/benefit ratio and the number of other people who also need to pledge for the project to succeed.¹⁹¹

Wikipedia provides an interesting example of a very successful street performer protocol. Each fundraising campaign, Wikimedia representatives—and particularly the founder, Jimmy Wales—make credible threats that if sufficient donations are not received, Wikimedia may be forced to run advertisements or charge for access to pay Wikipedia's ongoing costs.¹⁹² Each year so far, Wikimedia has exceeded its fundraising targets, suggesting that users are willing to bear costs to “keep Wikipedia free”.¹⁹³

These examples show two forms of incentives that should be able to raise rates of participation in one-shot interactions. Stephen King's experiment ended sourly; King eventually canceled the project after pay-through rates for the fourth installment dropped to 46 per cent. *The Plant* was never published, and both King and his audience were disappointed. This might go some of the way to explaining why few high profile producers have tried this model since. Theoretically, however, using one or both approaches – ex ante funding and value-added goods and services – should be sufficient to increase rates of participation amongst people the group of participants who would usually free-ride if possible.

191 See Archetti & Scheuring, *supra* note 190, at 17 (discussing optimal strategy in an n-person volunteer's dilemma).

192 Mak et al., *supra* note 85, at 2–3 (arguing that “PWYW can transform a private good ...into a public good”).

193 From *Wikipedia founder Jimmy Wales*, WIKIMEDIA (Nov. 14, 2011), https://wikimediafoundation.org/wiki/Keep_Wikipedia_Free.

ii. Insulating cooperators through positive assortment

Conditional cooperators don't like being suckers. In a well-mixed population, cooperation is difficult because cooperators are surrounded by free-riders who will take advantage of their generosity.¹⁹⁴ Importantly, however, our cultural landscape is not well-mixed. The structure of a producer's social network is likely to have a strong effect on rates of cooperation.¹⁹⁵ Everything else being equal, the lower the proportion of free-riders in any given group, the higher rates of cooperation are likely to be.¹⁹⁶ Simulations suggest that high thresholds of cooperation will be easier to achieve where social network connectivity is low, and cooperators do not have to interact with a large number of free-riders.¹⁹⁷

The implication is that voluntary payment schemes based on reciprocity are much more likely to be successful if participants feel as if they are interacting directly with the artist producer or with a select in-group of cooperators. It might be the case that in many cases, the sense of a personal connection would be sufficient to encourage participants to pay despite the fact that a broader mass of people choose to free-ride. When Amanda Palmer spoke about the relationship between her and the 25,000 fans who backed her record, and about the perceived fairness of the bargains between them, she spoke in terms of a fairness negotiated between a

194 Fischbacher et al., *supra* note 70, at 397.

195 See generally Lars Gunnar Carlsson & Annica Charlotte Sandström, *Network Governance of the Commons*, 2 INTERNATIONAL JOURNAL OF THE COMMONS 33 (2007) (discussing the importance of social network structures to successful collective action in natural resource commons).

196 Devesh Rustagi et al., *Conditional Cooperation and Costly Monitoring Explain Success in Forest Commons Management*, 330 SCIENCE 961, See (2010) (reporting that cooperation in forest management in Ethiopia was lower in groups with higher proportions of free-riders).

197 Hisashi Ohtsuki et al., *A Simple Rule for the Evolution of Cooperation on Graphs and Social Networks*, 441 NATURE 502, 504 (2006) ("In particular, more cooperation should emerge if connectivity is low."); See also Corina E. Tarnita et al., *Evolutionary Dynamics in Set Structured Populations*, 106 PNAS 8601, 8604 (2009).

community:

Because they weren't with us ..., and they couldn't see the exchange that was happening between me and my crowd, an exchange that was very fair to us but alien to them.¹⁹⁸

Palmer's fans appeared to react directly and positively to the connection they felt to her; many expressed their love and gratitude, which Palmer occasionally reciprocated. The connection felt by fans was palpable – for example, this comment is illustrative: “You're what a real rock star should be, someone who loves their fans as much as their fans love them”.¹⁹⁹ It would seem that many of Palmer's backers, when they are thinking about reciprocity, are not thinking about abstract free-riders who will take advantage of them, but of Palmer herself, who they just want to support. That fans feel such love for artists should not come as a surprise, and it is certainly not clear that a fan who supports a new production from their favorite artists would necessarily feel aggrieved if others were then able to access that work for free.

We see similar phenomena in communities of cooperators who are able to develop a strong sense of identity and shared purpose. Commons projects sometimes use this to great effect by creating an in-group²⁰⁰ of cooperators from around the world, where prosocial norms can be created that encourage cooperation in the face of large rates of free-riding amongst the broader

198 Amanda Palmer, *The art of asking*, TED 9:57 (Feb. 2013), http://www.ted.com/talks/amanda_palmer_the_art_of_asking.

199 Comment by “Meg”, note 103.

200 *See* Belsky et al., *supra* note 50, at 39–40 (“there is work in social psychology and neuroscience on social preferences, such as empathy and solidarity, or in-group bias all of which provide different perspectives on why we cooperate, and what aspects of the systems we inhabit influence the degree to which we cooperate.”).

community.²⁰¹ In a natural resource commons, where resources are subtractable collective goods, limiting the proportion of free-riders is crucial, because free-riders leave everyone else worse off.²⁰² In knowledge commons, on the other hand, the extent to which cooperators within each of these groups feels aggrieved by free-riders is largely a matter of perspective, and this is heavily mediated by the group. Wikipedians and free software developers, for example, do not feel like suckers in the face of huge numbers of people who benefit from their work but do not contribute to the community. Some of these groups do feel aggrieved when commercial users free-ride and do not reciprocate,²⁰³ but others develop different norms that support almost unlimited free-riding.²⁰⁴

Similar principles are likely to apply for groups specifically designed to fund the open production of cultural works. Unglue.it, for example, is a crowdfunding platform that allows users ('ungluers') to contribute to the costs of publishing open access books. Unglue.it's website proclaims its mission to “share books with the world”, and the narratives used to sell books are explicitly framed in terms of providing the benefits of a particular book to others, particularly

201 *See, e.g.*, E. GABRIELLA COLEMAN, CODING FREEDOM (2013) (explaining the way in which prosocial sharing norms are developed and maintained through extensive initiation and public debate in the Debian free software project).

202 ELINOR OSTROM, GOVERNING THE COMMONS 91 (1990) (“At the least, those who invest in the CPR may not receive as high a return as they expected. At the worst, the actions of others could destroy the resource itself. Thus, for any appropriators to have a minimal interest in coordinating patterns of appropriation and provision, some set of appropriators must be able to exclude others from access and appropriation rights.”).

203 The main innovation of the GNU General Public Licence was to prevent this form of free-riding by developing a 'copyleft' norm, which effectively discriminates between commercial users who create new works but share their improvements back with the community and those who do not. *See* Brian F. Fitzgerald & Nicolas Suzor, *Legal Issues for the Use of Free and Open Source Software in Government*, 29 MELB. U. L. REV. 412, 414 (2005); *See also* Clark D. Asay, *General Public License Version 3.0*, 14 MICH. TELECOMM. & TECH. L. REV. 265, 276 (2007) (describing changes to further limit forms of free-riding, include “Tivoization”, in the later Version 3 of the GPL).

204 For a discussion of the way in which licensing norms are negotiated in free software communities, *See* Stefano De Paoli et al., *Free and Open Source Licenses in Community Life*, 13 FIRST MONDAY (2008).

people in developing countries. While more research remains to be done, it seems reasonable to suggest that if cooperators are able to self-select into sets where either they rarely have to interact with free-riders or where they can develop prosocial norms that actually encourage free-riding, the *proportion* of cooperators may not be as important as their *absolute* number and degree to which they are able to cluster together.²⁰⁵ The long-tail effect of the internet is also likely to help here, enabling producers to reach a much wider audience and larger numbers of people with eclectic tastes, potentially making viable projects which could not be funded in conventional markets.²⁰⁶ In theory at least, at any given threshold, the larger the group, the easier it will be to form a critical mass, since the number of people who value the good disproportionately highly will be larger.²⁰⁷

iii. **Cooperative institutions: Large-scale, stable cooperation over time**

Most of the experiments discussed so far are one-shot: they provide an open offer to a large number of people, some of whom choose to cooperate for a specific purpose. If the number of people who choose to pay is sufficiently large, the project is successful. While these models may work for individual projects, they may not always provide a predictably stable model of funding

205 See Ostrom, *A Behavioral Approach to the Rational Choice Theory of Collective Action*, *supra* note 65, at 13 (“Contingent agreements do not need to include all those who benefit. The benefit to be obtained from the contribution of Y proportion of those affected may be so substantial that some individuals are willing to contribute so long as Y proportion of others also agree and perform.”).

206 CHRIS ANDERSON, *THE LONG TAIL* (2006); *See also* Max O. Souza et al., *Evolution of Cooperation Under N-Person Snowdrift Games*, 260 *JOURNAL OF THEORETICAL BIOLOGY* 581 (2009) (developing a model that predicts that successful cooperation may be more likely when the threshold is able to be met by a small proportion of the population, although coordination costs increase).

207 GERALD MARWELL & PAMELA OLIVER, *THE CRITICAL MASS IN COLLECTIVE ACTION* 49–52 (1993) (“the expected number of individuals who are willing and able to give at any specific contribution level will always be higher for a larger group.”)

for large-scale sustained productions. By changing the rules of the game, groups of individuals can change prisoners' dilemmas into forms that enable cooperation at scale and over time.²⁰⁸

Groups can institute various mechanisms – particularly, social rewards and punishments – to discourage free-riding and encourage cooperation.²⁰⁹ The study of collective action in natural resource commons (fisheries, forestries, irrigation water, grazing land, and so on) has shown that there are generalizable characteristics of the institutional structures and rules that enable successful, long term cooperation.²¹⁰ While we do not yet have the comparable long-term data, there is good reason to believe that similar rules might apply for maintaining cooperation in the production of knowledge goods.²¹¹

The SCOAP³ and Knowledge Unlatched systems are examples of complex negotiated arrangements that are designed to sustain long-term cooperation. In each case, because the materials that libraries are paying for are ultimately released for free to the public at large, each individual library has an incentive to free-ride rather than cooperate. In order to be successful, libraries, like individual users, need both rational incentives (in the form of current or future savings) and some assurance that they will not be unfairly subsidizing the costs of publishing

208 Ostrom, *A Behavioral Approach to the Rational Choice Theory of Collective Action*, *supra* note 65, at 8 (“Extensive research on how individuals have governed and managed common-pool resources has documented the incredible diversity of rules designed and enforced by participants themselves to change the structure of underlying social-dilemma situations.”).

209 See David G. Rand et al., *Positive Interactions Promote Public Cooperation*, 325 *SCIENCE* 1272 (2009) (finding that in public goods games, rates of participation and average payoffs were higher when participants could reward other participants for cooperative behavior than when participants only had the choice to punish or defect).

210 See OSTROM, *GOVERNING THE COMMONS*, *supra* note 202.

211 C. HESS & E. OSTROM, *UNDERSTANDING KNOWLEDGE AS A COMMONS* (2007); Michael J. Madison et al., *Constructing Commons in the Cultural Environment*, 95 *CORNELL L. REV.* 657 (2010).

while other institutions free-ride. Both schemes are set against a background social imperative to make academic research as broadly available as possible. Both schemes are also set in opposition to a particular pressing problem: the rapidly increasing costs of journal subscriptions in the sciences;²¹² and the crisis in humanities publishing caused by increasing costs and shrinking sales of monographs that is preventing scholars from disseminating their work.²¹³ Both models rely on libraries, as the key funders of academic publishing, to commit to a new structure in the hopes of providing a better long-term publishing model. Knowledge Unlatched also provides clear incentives – libraries are offered books at a per-title cost of \$60 or less (significantly lower than standard prices for academic books) and offered discounts for each book they have already purchased in hardcopy or electronic versions. SCOAP³, by contrast, attempts to limit free-riding that may diminish cooperative motives through a complex scheme that creates thresholds for funding levels in each country according to their share of global physics outputs.²¹⁴ Both the SCOAP³ and Knowledge Unlatched projects have successfully launched initial pilot programs. While their long term sustainability has not yet been proven, the fact that both projects have been able to secure agreements from hundreds of libraries is extremely promising.

There are other important examples in the educational sector. The *Stanford Encyclopedia*

212 See, e.g., Martha Kyrillidou & Shaneka Morris, *ARL Statistics 2008-2009* (Association of Research Libraries 2011) 11 (reporting a 381% increase in journal subscription costs and an 87% increase in monograph acquisition costs from 1986 to 2009); See also Harvard Faculty Advisory Council, *Major Periodical Subscriptions Cannot Be Sustained* (2012) (arguing that rising journal subscription costs are unsustainable even for extremely well-funded research libraries).

213 Knowledge Unlatched addresses a particular crisis in humanities publishing where the dwindling market makes it very difficult particularly for junior academics to publish their research. See TOBY MILLER, *BLOW UP THE HUMANITIES* 51–52 (2012).

214 SCOAP3 Working Party, *supra* note 10.

of Philosophy is funded through a combination of philanthropic grants and university library donations.²¹⁵ *The Conversation*, an Australian not-for-profit online news publication, provides public access to professionally edited academic commentary and analysis. *The Conversation* is funded by philanthropic and government grants and 'partner' universities.²¹⁶ Universities have a strong incentive to see the work of their academics published to a broad audience, although again the dominant strategy for any given university is likely to be to free-ride, since *The Conversation* does not limit submissions to partner institutions.

Each of these institutional collective action approaches, both within and outside academia, promises a great potential for creating sustainable commons-based production processes. The mechanisms for such large-scale cooperation, however, have not been extensively tested or studied. It is by no means clear what types of commons-based information production can be funded by private consortia, or how sustainable or scalable cooperation can be. Clearly, however, institutional cooperation is already working to fund some forms of open cultural production, and there is substantial demand, at least in academia, for experiments with commons-based funding mechanisms at larger scales.

b. A hypothesis: commons-based systems outperform conventional copyright systems

There is sufficient evidence to demonstrate that cooperative systems for coordinating cultural production are able to operate across a variety of creative industries at a diverse range of

²¹⁵ Zalta, *supra* note 171.

²¹⁶ *The Conversation*, *supra* note 172.

scales. The experiments that have been attempted so far provide ample proof of concept for the proposition that these models can be successful. The outstanding questions are now about the extent to which these models can stretch, and the implications they may present for copyright doctrine and policy.

In order to explore the limits and implications of cooperation, I propose a hypothesis: commons-based systems of coordinating creative production are likely to outperform conventional copyright systems on measures of efficiency, fairness, and capabilities for human flourishing. These three criteria encapsulate a particular view of copyright that focuses on its instrumental goal to “promote the Progress of Science and useful Arts”.²¹⁷ Economic efficiency measures the ability of copyright to fulfill its core function of coordinating investment in cultural production. Beyond efficiency, part of the reason we care about copyright is the commitment that authors should be treated fairly.²¹⁸ The final measure provides a more substantive evaluation of the role of copyright in our society in promoting equality and freedom.²¹⁹ Progress itself is not a fundamental good; rather, copyright is important because of the role it plays in helping people learn, play, and express themselves through culture.²²⁰ Unlike efficiency, this last measure is not indifferent to quality of expression (its diversity of views and of forms), distributional concerns

217 US Const, Art I § 8, cl 8.

218 Wendy J. Gordon, *An Inquiry into the Merits of Copyright*, 41 STANFORD LAW REVIEW 1343, 1439 (1989) (discussing the role of “desert” in copyright: “while desert may not be the only component of justice, it does have a weight that deserves respect.”); Jessica Litman, *Sharing and Stealing*, 27 HASTINGS COMM. & ENT. L.J. 1, 32 (2004) (discussing the role of fairness in copyright).

219 See generally AMARTYA SEN, *DEVELOPMENT AS FREEDOM* (1999); MARTHA C. NUSSBAUM, *CREATING CAPABILITIES* (2011).

220 See generally Julie E. Cohen, *Creativity and Culture in Copyright Theory*, 40 UC DAVIS LAW REVIEW 1151 (2007).

about cost and access, or the rules that limit how expression may be used and reused. Together, these criteria provide a more substantive consequentialist evaluation of the role of copyright in supporting “a just and attractive culture”.²²¹

i. Efficiency

Copyright is fundamentally and intractably inefficient. Structurally, it allows producers to recoup their costs by enabling them to exclude those who cannot afford to pay the price they set. By turning expression, a public good, into a private good, copyright necessarily limits the distribution of knowledge and culture throughout society.²²² Because excluding free-riders comes at such a heavy cost,²²³ copyright “is a second best solution to market failure,” but “there is no first best answer.”²²⁴ Within the paradigm of copyright law, while it is possible to optimize the balance between incentives and access to an extent, there is always a trade-off, and underutilization (deadweight loss) is unavoidable.²²⁵ Ultimately, it becomes impossible to increase access to information goods without diminishing the incentives to invest in the production of new works – a self-defeating strategy.²²⁶

221 William W. Fisher, *Theories of Intellectual Property*, in *NEW ESSAYS IN THE LEGAL AND POLITICAL THEORY OF PROPERTY* 168, 172 (Stephen R. Munzer ed., 2001).

222 See Kenneth Arrow, *Economic Welfare and the Allocation of Resources for Invention*, in *THE RATE AND DIRECTION OF INVENTIVE ACTIVITY: ECONOMIC AND SOCIAL FACTORS* 609, 617 (Richard Nelson ed., 1962).

223 See Mark A. Lemley, *Property, Intellectual Property, and Free Riding*, 83 *TEX L. REV.* 1031, 1049 (2004); See further Brett M. Frischmann & Mark A. Lemley, *Spillovers*, 107 *COLUMBIA LAW REVIEW* 257 (2007) (arguing that economic externalities are good for society).

224 Ruth Towse, *What We Know, What We Don't Know and What Policy-Makers Would Like Us to Know About the Economics of Copyright*, 8 *REVIEW OF ECONOMIC RESEARCH ON COPYRIGHT ISSUES* 101, 105 (2011).

225 See Landes & Posner, *supra* note 19, at 326 (“Copyright protection—the right of the copyright’s owner to prevent others from making copies—trades off the costs of limiting access to a work against the benefits of providing incentives to create the work in the first place. Striking the correct balance between access and incentives is the central problem in copyright law.”).

226 See Suzor, *supra* note 138, at 310 (“If copyright incentives are necessary to produce creative expression, and

Commons-based models of cultural production, when they are successful, avoid the costly trade-off between incentives and access.²²⁷ As compared to monopoly pricing under traditional copyright models, the benefits of making information goods available at their marginal cost of distribution (vanishingly close to zero, in the case of digital goods) are potentially immense. The use of open licensing for copyright works enables widespread and practically unlimited dissemination and reuse of knowledge and cultural goods. Openly licensed goods also greatly reduce the transaction costs involved in seeking permission to use and reuse copyright works.²²⁸ Systems of production that are less reliant on copyright are likely to incur less of the substantial costs of copyright monitoring and enforcement. Easier access to creative content – lower prices and lower transaction costs – and a reduction in the power of established intermediaries to control distribution can also create opportunities for businesses who add value through disruptive innovation around interactions with existing content.²²⁹

Under the 'Pareto efficiency' test, a system is said to be more efficient than another if some people are made better off while nobody is made worse off.²³⁰ For example, the attempts by

greater incentives lead to more production, then reducing deadweight loss by decreasing copyright protection in order to increase access necessarily means reducing production.”); *See further* Stan J. Liebowitz & Stephen Margolis, *Seventeen Famous Economists Weigh in on Copyright*, 18 HARV. J.L. & TECH. 435, 569 (2004) (“A system of private ownership providing the incentive for creation cannot give a reward to the creator without also having an apparent deadweight loss in the consumption market.”).

227 *See* Suzor, *supra* note 138, at 333–35 (arguing that systems that encourage abundance in access to knowledge and culture provide greater social benefits and more fair outcomes than conventional copyright systems).

228 Breyer, *supra* note 22, at 316–18.

229 Gerhard Satzger & Andreas Neus, *Principles of Collaborative Innovation*, in INNOVATION AND INTERNATIONAL CORPORATE GROWTH 219, 223–24 (Alexander Gerybadze et al. eds., 2010); *See further* BRETT M. FRISCHMANN, INFRASTRUCTURE, ch. Ch 12 (2012) (discussing “intellectual infrastructure”); Raymond Shih Ray Ku, *The Creative Destruction of Copyright: Napster and the New Economics of Digital Technology*, 69 THE UNIVERSITY OF CHICAGO LAW REVIEW 263 (2002) (discussing the disruptive innovation of filesharing technologies).

230 For a discussion of pareto efficiency, *See* Guido Calabresi & A. Douglas Melamed, *Property Rules, Liability*

SCOAP³ and Knowledge Unlatched to 'flip' existing copyright production models to cooperative systems are likely Pareto-improvements if they work. Where existing budgets can be redirected through collective action, publishers are able to reduce risk and maintain (potentially appropriately discounted) profits, libraries and institutions are left in a similar position, and the public gains a great deal through open access to scholarly works.

Because the test forbids redistribution (no person may be made worse off),²³¹ not all commons models will be Pareto-improvements. Almost all, however, are likely to be Kaldor-Hicks efficient improvements. An outcome is said to be more efficient under the more relaxed Kaldor-Hicks criteria if any loss experienced by people made worse off is less than the gain experienced by those who are made better off.²³² The winners must be theoretically able to fully compensate the losers, although there is no practical requirement to do so.

Amanda Palmer's Kickstarter campaign, for example, is probably an improvement over Double Fine's Broken Age campaign. In each of these cases, since consumers only pay what they want, we can assume that they are always getting a positive result. The benefits to the members of the public who are able to free-ride and receive access that they would not otherwise get, on the other hand, are quite substantial. By releasing her album under a Creative Commons license, Palmer enables much greater social value and downstream innovation than if she had, like

Rules, and Inalienability, 85 HARVARD LAW REVIEW 1089, 1094–98 (1972).

231 For a discussion of the prohibition against redistribution, See Robert Nozick, *Distributive Justice*, 3 PHILOSOPHY & PUBLIC AFFAIRS 45 (1973).

232 Jules L. Coleman, *Efficiency, Exchange, and Auction*, 68 CALIFORNIA LAW REVIEW 221, 239 (1980) (“A redistribution of resources is Kaldor-Hicks efficient if and only if under the redistribution the winners win enough so that they could compensate the losers. The notion of Kaldor-Hicks efficiency does not require that the winners actually compensate the losers.”).

Double Fine, continued to sell restrictive licenses to the album. On the producer's side, it is impossible to say whether Palmer could have earned more by not making her album shareable – her PWYW revenue may or may not be less than the counterfactual. If she is no worse off, the result is a Pareto-improvement – some are better off, and nobody is worse off. Importantly, however, even if she is personally worse off, the result is likely to be a Kaldor-Hicks improvement. Once Palmer has received enough money to produce the album and make a reasonable profit, from the incentives perspective of copyright theory, any further gains are unproductive monopoly rents. Reducing the potential rents Palmer can extract, once the album has already been produced, merely adds to the consumer surplus.²³³

Similarly, if Double Fine were able to raise an amount through PWYW or crowdfunding that enabled it to achieve profits greater to or equal to the likely profits it could expect over the life of Broken Age, releasing it under an open license would be a Pareto-improvement. If Double Fine were to raise less than was required to be in the same or better position their total expected profits but more than the amount they require to make the game, this would likely be a Kaldor-Hicks improvement. Only if Double Fine could not raise enough money to produce the game through voluntary payments would it potentially be a worse outcome.

For the same reasons, Palmer's model is, in isolation, superior to a conventional copyright production system. If a voluntary payment mechanism can raise enough funds to cover the producer's fixed costs of production plus a reasonable profit, it will in almost all cases be more efficient than a system that enables an investor to obtain monopoly rents. In efficiency terms, at

²³³ Lemley, *supra* note 223, at 1046–47.

least when we only consider individual productions in isolation, successful commons-based models must be more efficient than conventional copyright-based approaches. Importantly, however, these systems rely on producers making a distinct choice to potentially limit their revenue in order to generate greater public benefits. This suggests a key role for policy in providing incentives to encourage individuals and firms to use these systems if they do turn out to be systematically more efficient.

Whether these systems are more efficient ultimately depends on whether they are able to successfully fund a sufficient level and diversity of cultural production. Some forms of cultural production may be more suited to voluntary payment schemes than others. Successful voluntary schemes tend to have loyal followings; the highly popular works of mass culture and niche producers with strong but small fan bases might be able to reliably raise the funds they need for their production on a voluntary basis. These schemes have not yet been proven at the very largest scales of cultural production – the blockbuster films or video games that require an initial investment of many millions of dollars. It is also not yet clear that there is sufficient audience loyalty to support the bulk of mass media in the middle range. For the proportion of content that is marginal – just breaking even or providing modest returns – PWYW or crowdfunding schemes may not work. If these schemes reduce monopoly rents, they will also reduce the ability of producers to invest the rents from one work into producing others works which are not commercially successful, further limiting the production of more marginal works. Advertising revenue directed to producers may also diminish if cultural works are released under fully open licenses, since producers can no longer easily control distribution. There are also likely to be

many crowdfunded projects that are only partially funded in advance. For these projects, the amounts raised in advance might give producers sufficient assurance that a market exists to invest more money into production, in the hope of recouping that investment through copyright licensing; these projects may not be viable under a commons production model. Conversely, for the large proportion of content that is produced but never breaks even, an ex ante crowdfunding model enables producers to fail much more cheaply. If the market is not prepared to pay, instead of losing the entire production and market budget, their loss is limited to pre-production costs and the costs of running the crowdfunding campaign.

Finally, some of the success in PWYW schemes can be attributed to the novelty of the model, and this is likely to diminish if PWYW becomes more common. As we have seen, some people are motivated to pay in part to reciprocate the nice act of the producer in making their work available for free. This must be understood against a background of private licensing as the normal mode of distribution; if this begins to change, a producer's decision to use PWYW may be given less weight. At the same time, amounts voluntarily chosen are often anchored to a reference point for traditional licensing models. As PWYW becomes more common and more material is available legitimately for free or very cheaply, there is at least a suggestion that people may come to value digital goods less, and the amount people may be willing to pay will accordingly decrease. These implications are as yet untested.

There is sufficient reason to believe that commons-based voluntary payment mechanisms might be more efficient than traditional copyright-based production models. In terms of individual experiments, we have seen that voluntary payment works across a number of different

creative industries and over a broad range of levels, from small to medium-scale productions. What is missing is an understanding of how voluntary payment mechanisms might work at scale, and how they interact with other mechanisms of funding cultural production. The evaluation of efficiency must examine the systemic impact of these systems, rather than a one-off comparison of successful productions. More research is accordingly required to understand the circumstances in which voluntary payment systems are likely to work and the likely effects of an increased proportion of commons-based systems on the creative industries as a whole.

ii. **Fairness and human flourishing**

Efficiency, by itself, is an insufficient measure to inform policy choices.²³⁴ Both short-term distributional effects and long-run effects on society are important. “[C]reative destruction,” as Julie Cohen says, “is nicest for those who do not have to undergo it.”²³⁵ When evaluating commons-based systems of cultural production, we must accordingly consider the implications for the producers who may be worse off in the short-term, as well as the systemic implications for the abstract public in the long-term.

Distributional effects on producers

In terms of short-run winners and losers, the distributional effects of more widespread use of commons-based systems of production require investigation. There are two main groups of distributional concerns: first, some genres, sectors, or industries may be more amenable to

²³⁴ Christian Schubert, *How to Evaluate Creative Destruction: Reconstructing Schumpeter's Approach*, 37 CAMBRIDGE JOURNAL OF ECONOMICS 227, 241 (2013) (arguing that evaluating innovation requires using welfare and preference effects “as an ‘input’ into a more public process of normative reasoning and deliberation.”).

²³⁵ JULIE E. COHEN, CONFIGURING THE NETWORKED SELF 103 (2012).

voluntary payment schemes than others; and second, within these groups, producers may earn less on average or be subject to more skewed distributions of revenue under voluntary payment schemes than they would under copyright systems. In terms of distributional effects between different producers, some forms of production are likely to be much more successful than others,²³⁶ but we simply do not have the data yet to be sure.

As for average payment and distribution of revenues, the answer is also unclear, but there is a colorable argument that the majority of producers will not be worse off. Except for the systems like SCOAP³ and Knowledge Unlatched that simply redirect existing payments from conventional copyright licensing to fund commons-based production, it is likely that producers in voluntary payment systems will on average forgo some profits. There is some evidence that PWYW schemes can be more profitable than conventional licensing in some cases,²³⁷ particularly in driving the sales of complementary goods,²³⁸ but this may depend on the producer's stage in their career lifecycle.²³⁹ It is safer to assume, for the moment, that commons-based schemes do in fact impose a cost on producers compared to conventional copyright licensing. The relevant question is how that cost is distributed.

236 Ajay Agrawal et al., *Some Simple Economics of Crowdfunding*, *supra* note 126, at 38.

237 Sana El Harbi et al., *Substituting Piracy with a Pay-What-You-Want Option*, 37 EUROPEAN JOURNAL OF LAW AND ECONOMICS 277, 294–95 (2014) (finding that an artist's profit from derivatives, including live performances, increases under PWYW pricing, and that under certain conditions, a pay-what-you-want model can be more profitable than a conventional album release).

238 Ju-Young Kim et al., *Kish*, 8 REVIEW OF MARKETING SCIENCE 1, 8 (2010) (discussing pay-what-you-want revenues and complementary goods in a restaurant setting); but *See* Schmidt et al., *Pay What You Want as a Marketing Strategy in Monopolistic and Competitive Markets*, *supra* note 80, at 2–3 (noting that “PWYW may not maximize sales after all.”).

239 *See* Tobias Regner et al., *An Artist Life Cycle Model for Digital Media Content*, 8 ELECTRONIC COMMERCE RESEARCH AND APPLICATIONS 334, 336–40 (2009) (arguing that the benefits of super-distribution, variable pricing, and voluntary contributions are more likely to suit an artist in the early stages of their career, whereas traditional copyright business models are likely to provide greater revenues to established artists.).

Conventional publishing models in the creative industries are not particularly fair for artists, even the small percentage who manage to develop successful audiences and professional contracts.²⁴⁰ Artists in the creative industries are characterized by a strong A-list / B-list phenomenon, where small differences in perceived talent result in huge differences in rewards. Success in the creative industries is a lottery.²⁴¹ In order to mitigate the inherent risks of creative production, copyright aggregates money and power in publishers, allowing them to weather the inherent uncertainty by offsetting many flops against the occasional hit. As a result of this power asymmetry between publishers and artists, copyright over-compensates the tiny proportion of superstars and generally fails to provide adequate rewards to everyone else.²⁴²

Commons-based systems may actually fare significantly better for authors on fairness grounds. Whether the distribution of revenue is more or less fair in commons-based systems than in conventional copyright models really depends upon the ability of commons-based systems to support a larger range of producers than the copyright industries currently do. In all likelihood, revenue in voluntary payment systems will also be skewed towards popular producers.²⁴³ If this is the case, commons-based systems may be no less fair than existing systems. Potentially, however, voluntary payment schemes may include an in-built self-limiting trend that limits

240 *See, e.g.*, Albini, *supra* note 121 (discussing the fact that few professional recording artists are able to profit from even highly successful recording contracts).

241 RICHARD E. CAVES, *CREATIVE INDUSTRIES* 87 (2000).

242 RUTH TOWSE, *CREATIVITY, INCENTIVE, AND REWARD* 132–36 (2001); *See further* Suzor, *supra* note 138, at 324.

243 Ajay K. Agrawal et al., *The Geography of Crowdfunding*, Working Paper 16820 (National Bureau of Economic Research), Feb. 2011 8 (finding that on Sellaband, a music crowdfunding site, 0.7% of artists raised more than 73% of all funds raised between 2006 and 2009). *See further* Ajay Agrawal et al., *Some Simple Economics of Crowdfunding*, *supra* note 126, at 4–5 (reporting unpublished work that revealed similar outcomes on Kickstarter, “even conditioning the sample on successfully funded projects”).

monopoly rents to superstars. In an openly licensed model, participants are asked to support the costs of production because it is the right thing to do; it may be that extremely successful producers will not be able to convince their audience that they deserve the same windfall profits that they receive under conventional licensing regimes. Of course, extremely popular producers are still likely to receive windfall profits through cross-subsidies and potentially reciprocity norms – Amanda Palmer's experience demonstrates that her fans were willing to award her much more than the \$100,000 she originally asked for. It is at least conceivable, however, that commons-based systems might reduce monopoly rents disproportionately amongst superstars. Conceivably, if consumers spend less on superstars, there might also be more money available to support a more diverse range of producers. Reduced rents also means that publishers have less incentive to invest heavily in wasteful marketing races that crowd out marginal works.²⁴⁴

If voluntary payment mechanisms are able to reduce some of the monopoly rents of producers and some of the power of publisher intermediaries, this would almost certainly be a good result.²⁴⁵ If this is the case, the average artist may benefit, even though the most successful artists would suffer. Any system that evens out the highlight skewed revenue curve of artists, even to a small extent, is likely to be better on distributional grounds.²⁴⁶ If, on the other hand,

244 See, e.g., Mark S. Nadel, *How Current Copyright Law Discourages Creative Output*, 19 BERKELEY TECH. L.J. 785, 801–3 (2004) (arguing that the lottery rewards of mass-market cultural production encourages wasteful spending on marketing, which in turn leads to the lower viability of marginal works.).

245 See Jessica Litman, *Real Copyright Reform*, 96 IOWA LAW REVIEW 1, 20 (2010) (“Some erosion in the position of distributors under copyright is probably both natural and desirable.”).

246 David Throsby, *Preferred Work Patterns of Creative Artists*, 31 J ECON FINAN 395, 396–98 (2007) (reporting data that suggests that artists are more likely to achieve a preferred time allocation for creative work with increased financial security.); See also Jorge Alonso & Richard Watt, *Efficient Distribution of Copyright Income*, in THE ECONOMICS OF COPYRIGHT: NEW DEVELOPMENTS IN RESEARCH AND ANALYSIS 81, 93 (Wendy J. Gordon & Richard Watt eds., 2003) (arguing that it is logical to assume that creators are more risk-averse than

commons-based crowdfunding does not substantially reduce rents, then these systems are likely to be neutral at worst on fairness grounds. Of course, if voluntary payment mechanisms are even more skewed in favor of superstars, then the average artist will be worse off.

Distributional effects on the public

Importantly, artists and producers are not the only parties who matter in a fairness calculus. If we start from the Rawlsian proposition that justice requires a fair distribution of resources,²⁴⁷ the distributional effect on the most disadvantaged people in society is of most importance. Compared against openly licensed goods, monopoly pricing in conventional copyright systems makes disadvantaged people worse off. The availability of Wikipedia, for example, means that everyone can have access to a large body of knowledge for free. If the only encyclopedias there were available were subscription-based, the poorest members of society would have to give up some other source of welfare to access that knowledge.²⁴⁸

These distributional effects are particularly visible in terms of access to information in developing countries. Open access to scholarly resources, for example, makes some of the world's recorded scientific literature available to scholars who could not otherwise afford access.²⁴⁹ Open educational resources improve access to textbooks and other materials for people in developing countries.²⁵⁰ Many other cultural goods are often unaffordably priced for people in

publishers); Diane Leenheer Zimmerman, *Copyrights as Incentives: Did We Just Imagine That?*, 12 THEORETICAL INQUIRIES IN LAW #3, 41–42 (2011).

247 JOHN RAWLS, A THEORY OF JUSTICE (1972).

248 BENKLER, *supra* note 32, at 306–7.

249 See Leslie Chan et al., *Open Access Archiving* (2005).

250 See Susan D'Antoni, *Open Educational Resources*, 24 OPEN LEARNING: THE JOURNAL OF OPEN, DISTANCE AND E-LEARNING 3 (2009).

developing countries,²⁵¹ and greater levels of free access can be extremely important for people who are disadvantaged in the market economy.²⁵²

This reasoning can be extended to all knowledge and cultural goods. If total welfare (efficiency) is equal, we should prefer the conditions in which information goods are available at or close to their marginal cost of distribution. More generally, if non-exclusive modes of production are feasible, we should only prefer copyright-based models if they lead to such an increase in quality, quantity, diversity, or aggregate welfare that the poorest members of society would be better off despite having to pay for access.²⁵³ Here too, then, we need a better understanding of the long-run effects of commons-based systems of production.

Capabilities for human flourishing

Focusing on welfare alone is not sufficient for copyright policy. Access to knowledge and culture is important because it is an important part of living a good life.²⁵⁴ Human flourishing requires that people have a minimum threshold of capability to exercise the freedoms required for a life of dignity and well-being.²⁵⁵ The capability to access and participate in culture is a fundamental component of flourishing in a social life.²⁵⁶ It is also important for development – innovation, creativity, and growth are dependent on the ability of people to learn from and

251 See generally Joe Karaganis, *Media Piracy in Emerging Economies* (Social Science Research Council 2011).

252 See, e.g., Shuddhabrata Sengupta, *A Letter to the Commons*, in *IN THE SHADE OF THE COMMONS* 19, 20 (Lipika Bansal et al. eds., 2006) (discussing the importance of access to knowledge and cultural goods for people unable to bargain for access).

253 BENKLER, *supra* note 32, at 307.

254 See Suzor, *supra* note 138, at 314–22.

255 AMARTYA SEN, *supra* note 219; NUSSBAUM, *supra* note 219, Kindle location 341.

256 MADHAVI SUNDER, *FROM GOODS TO A GOOD LIFE*, at 64-76 (2012); COHEN, *supra* note 235, at 49 (arguing that “the play of everyday practice is the means by which human beings flourish.”).

improve on existing works.²⁵⁷ Fundamentally, access to knowledge and cultural goods is how we learn, and playing in the flow of culture is how we grow.²⁵⁸

All else being equal, cultural works that are shareable and free to use and improve are much more conducive to human flourishing than copyright works released under conventional consumer licenses. We have already seen that free cultural and knowledge works enable people in disadvantaged groups to participate in education, culture, and economic society to an extent not otherwise possible. When copyright imposes a barrier to access to knowledge and culture, it limits the capacity of people to participate in society.

Beyond the threshold of a basic level of access to participate in society, the impact of greater access is exponential, not linear. Creativity and learning are reliant not just on deliberate experimentation, but on “serendipitous access and unexpected juxtapositions”.²⁵⁹ The value of any piece of information increases with the connections that are available to other pieces of information.²⁶⁰ A model of cultural abundance, with the legal ability to consume, borrow, adapt, remix, and re-express cultural works, helps to promote creativity, learning, and cultural play to an extent that a model based on exclusivity and costly access never can.²⁶¹

257 L.R. PATTERSON & S.W. LINDBERG, *THE NATURE OF COPYRIGHT* 50 (Univ of Georgia Pr 1991); HUGH BREAKEY, *INTELLECTUAL LIBERTY* 84 (Ashgate 2012) (“the flow and progression of science, technology, culture and learning has until now occurred because of people’s liberties to copy, learn, critique, refute, synthesise, subtilize and generally bounce off others’ ideas.”); Margaret Chon, *Intellectual Property from Below*, 40 U.C. DAVIS L. REV. 803, 846 (2006).

258 Cohen, *Creativity and Culture in Copyright Theory*, *supra* note 220, at 1168 (arguing that the “play of culture” furthers progress by fostering diversity and destabilization in “settled modes of knowing.”).

259 COHEN, *supra* note 235, at 68.

260 *See* PAUL ORMEROD, *POSITIVE LINKING* (2012).

261 *See, e.g.*, LAWRENCE LESSIG, *THE FUTURE OF IDEAS* (2002); BOYLE, *supra* note 21; *See further* Suzor, *supra* note 138, at 318.

For these reasons, all else being equal, systems that enable greater abundance and greater flow of knowledge and culture are likely to align more with human flourishing than other systems. The difficulty remains that all else is not equal – there are likely to be differences in the volume and types of production that can be supported by different systems. Understanding what those differences are will be crucial to this analysis.

c. A better consequentialism for complex systems

On each of the three metrics considered here – efficiency, fairness, and flourishing – there is a plausible hypothesis that commons-based systems of production might result in better outcomes than conventional copyright systems. For each, however, the analysis ultimately depends upon an analysis of how these systems might interact with other modalities of production and an evaluation of their likely effects on levels and qualities of output in the creative industries as a whole. In order to come to any view about the desirability of encouraging commons-based systems of productions, we need a better understanding of the types of content and industries that are amenable to voluntary payment systems; the likely distribution of revenues amongst producers; the impact of greater levels of access on future creators; the likely shifts in incentives; the effective limits on voluntary contributions; and the effects on publisher intermediaries.

The analysis that is needed to test this hypothesis requires a new methodological approach. The conventional tools of economic welfare analysis familiar to copyright have so far been unable to model long-run effects of any changes in copyright law, public policy, or industry

practice.²⁶² The essential problem is that the welfare effects of any given experiment or system cannot be assessed individually, but must instead be understood in the context of their effect on other actors.²⁶³ The creative industries are complex systems,²⁶⁴ in which information is both an input and an output. In these complex systems, a heterogenous but not well-mixed set of autonomous actors with diverse motivations and bounded rationality interact within a social network.²⁶⁵ Because “everything is connected to everything else”²⁶⁶ and tightly coupled actions are governed by vicious or virtuous feedback circles, different content production systems will interact in counterintuitive ways.

The biggest challenge lies in understanding the dynamic effects of different systems of cultural production. In order to understand the implications of any potential change to copyright, a new approach is required that can focus on the connection between actors (individuals and firms), not the individual incentives of actors that is familiar to neoclassical economic analyses of copyright.²⁶⁷ As a starting point, since information is an input as well as an output in the creative industries, we might assume that lowering input costs through commons models are

262 See Sacha Wunsch-Vincent, *The Economics of Copyright and the Internet* (World Intellectual Property Organization-Economics and Statistics Division 2013); NATIONAL RESEARCH COUNCIL, *COPYRIGHT IN THE DIGITAL ERA* (Stephen A. Merrill & William J. Raduchel eds., 2013); Christian Handke, *A Taxonomy of Empirical Research on Copyright - How Do We Inform Policy?*, 9 *REVIEW OF ECONOMIC RESEARCH ON COPYRIGHT ISSUES* 47 (2012); Towse, *What We Know, What We Don't Know and What Policy-Makers Would Like Us to Know About the Economics of Copyright*, *supra* note 224.

263 See Schubert, *supra* note 234, at 239.

264 See J. Potts et al., *Social Network Markets*, 32 *JOURNAL OF CULTURAL ECONOMICS* 167 (2008).

265 See Joshua M. Epstein, *Agent-Based Computational Models and Generative Social Science*, 4 *COMPLEXITY* 41, 41–42 (1999).

266 BARRY COMMONER, *THE CLOSING CIRCLE* (1971).

267 John Foster, *From Simplistic to Complex Systems in Economics*, 29 *CAMB. J. ECON.* 873, 883–85 (2005) (discussing the need to move beyond neoclassical optimization and focus on connections between elements in complex systems).

likely to enable more reuse, more aggregate production. Importantly, greater flow of information is also likely to enable greater innovation, which often involves the deliberate and unexpected combination of multiple sources of information.²⁶⁸ Similarly, since creativity is always inspired by existing culture, enabling greater flow of information can lead to a more vibrant creative culture by creating new opportunities for serendipitous exposure not possible with higher transaction and licensing costs.²⁶⁹ On the other hand, we have no evidence and very little theory about how increased use of commons-based production systems might interact with more conventional systems for coordinating and funding investment in cultural production. Any changes in public policy and industry practice are likely to increase production in some systems but depress others, but the direction or magnitude of any of these effects is currently unknown. Given the potential gains that might be possible, this is a key and pressing area for new research.

Part V. Conclusion

The assumption at the core of copyright, that users are self-interested wealth-maximizing free-riders, is untenable. Humans are responsive to incentives, but we are also motivated by a desire to reciprocate, respect for social conceptions of fairness, concern for the wellbeing of others, and personal ethical commitments. These diverse motivations lead individuals to actively reciprocate kindness and support the producers of creative works in circumstances where

268 See Peter F. Drucker, *The Discipline of Innovation*, 76 HARVARD BUSINESS REVIEW 149 (1998) (discussing the sources of innovation, including “unexpected occurrences” and “new knowledge”); See also Rebecca Tushnet, *Copy This Essay*, 114 YALE LAW JOURNAL 535, 522–24 (2004) (discussing sources of inspiration for creative work); J.C. Fromer, *A Psychology of Intellectual Property*, 104 NORTHWESTERN UNIVERSITY LAW REVIEW 1462–63 (2010) (explaining that “creativity is hard work”); Silbey, *supra* note 17, at 2102 (explaining the role of serendipity in creativity).

269 See e.g. Cohen, *Creativity and Culture in Copyright Theory*, *supra* note 220, at 1190–92 (discussing the “play of culture”).

conventional copyright theory would not expect them to.

In recent decades, the failure of copyright industries to take fairness norms into account has been undermining the normative moral legitimacy of copyright law. The increasingly punitive nature of copyright enforcement, the disconnect between copyright law and morality, and the perceived unfairness with which copyright industries treat both artists and consumers is likely to substantially weaken the motivations of individuals to pay for digital goods. The focus of copyright industries on strengthening copyright, then, is misguided. In order to encourage users not to free-ride, copyright industries should instead set about ensuring that copyright law and practice is fair.

The recognition that reciprocity and fairness norms play an important role in the motivations of people opens up the possibility of structural changes to copyright business models. Through coordination and cooperation, producers and audiences are sometimes able to develop successful systems for funding the production of creative works without the exclusivity that copyright requires. There is good reason to believe that these commons-based voluntary mechanisms might be workable at scale and potentially sustainable across a broad proportion of the creative industries.

To the extent that commons-based systems of cultural production are effective, it is likely that they are also more efficient than conventional copyright models. Commons production limits the costly under-use and under-distribution of information goods that is largely unavoidable under copyright. Because access to knowledge and culture is a fundamental component of a good life, commons models are also likely to be more conducive to helping

people flourish.

Ultimately, evaluating both the efficiency and the effect on flourishing of commons models requires a much more detailed understanding of knowledge and cultural commons. First, much depends on the extent to which these systems can be effective and sustainable, about which little is currently known. More research is required to understand the conditions for successful cooperation in information commons. Second, we need a much more sophisticated understanding of the interaction between different systems of production and the effect on total production, types of production, and levels of access. This work requires a different approach to that which has typically informed copyright theory – one that is sensitive to the complex relationships between actors involved in cultural production.

Undertaking this work is of great importance. New technologies have given rise to a crisis in the traditional foundations of copyright by radically lowering the costs of production and distribution of creative works. This crisis continues to disrupt creative industries, and there are no easy answers about how the law should respond. At a time when so much is at stake in the content, technology and internet industries, it is vital for that we understand the conditions under which copyright works effectively in order to get the balance right. Identifying the extent to which new systems can deliver better outcomes for both producers and consumers of knowledge and cultural goods could present an extremely important opportunity for policy.