Authorship in the Age of the Conducer

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AUTHORSHIP IN THE AGE OF THE CONDUCER

by Erez Reuveni*

The age of centralized information production is over. Today, countless creative enterprises involve decentralized collaboration by hundreds of end-users. Yet, the Copyright Act’s last major revision occurred over thirty years ago, when a centralized, corporate model of production was the primary means of delivering information products on a mass-market scale. This Article contends that several features of the Copyright Act, remnants of this earlier corporate-driven era, are outmoded and fail to offer optimal incentives for the decentralized, non-profit-driven model of creative production utilized by many in the software and information-product fields. Specifically, the Copyright Act assumes creativity stems from the creative hand of a single guiding genius whose work becomes immutable once fixed in a tangible medium of expression. The Act also assumes that creative endeavors result primarily from a desire for financial recompense. These assumptions made sense when the tools of production were expensive and information production was largely a function of profit-driven corporate efforts. However, today many fields of creativity involve decentralized, collaborative efforts, often driven by non-financial impulses. As a result, copyright law does not provide an optimal incentives regime for decentralized, end-user-driven creativity. These end-users, simultaneously consumers and producers of information products, function largely outside the descriptive and theoretical underpinning of the utilitarian regime the 1976 Copyright Act established. As this Article contends, the Act’s assumptions regarding authorship, creativity, and artistic motive need to be reexamined and reformulated so that the Act’s guiding purpose — to encourage the production of creative works — continues to function effectively in an era of decentralized, end-user collaborative projects.

INTRODUCTION

Copyright law generally assumes a creative work is the product of a single, guiding genius and that once a work is fixed within a tangible m-

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diem of expression, it becomes immutable.\(^1\) Copyright law also assumes that authors are primarily motivated by the potential for financial returns on their creative efforts. Historically, these assumptions made sense. An author conceived of a creative project and actively fixed his expression in a tangible medium. Corporations served as cultural gatekeepers, possessing the resources and expensive equipment necessary to produce and distribute creative products.\(^2\) Consumers contributed nothing creative, or “authorial,” to the creative object, and once fixed, the object became a commodity to be passively consumed. But the emergence of the Internet as a medium of exchange, the recent affordability of the tools of creative production, and the digitization of creative media challenge these assumptions, rendering digital information and entertainment products far more interactive than ever before. Today’s “audience” no longer just passively consumes creative works. Nor are all works “fixed” in the sense that they never change once the original author produces them. Rather, the consumer is now often an active participant in the creative endeavor, interacting with, and continuously contributing new material to creative works. In fact, consumers may contribute as much creatively to some copyrightable works as the original producers.

Consumers who both consume creative works and simultaneously add creative content to those same works are known in some industries as “conducers.”\(^3\) A conducer’s hybrid productive and consumptive activity is “conductive.” Examples of conductive end-user activity are legion. Every day thousands of people log on to Massive Multiplayer Online Role-playing Games (MMORGs), or “virtual worlds,” where they not only consume creative products by playing the game, but also produce such products by independently creating content that then becomes a part of the MMORG;\(^4\) other gaming companies encourage their end-users to modify, or “mod,” the core elements of their games, resulting in consumers using the developer’s original game as a baseline to create what are essentially entirely new gaming experiences;\(^5\) numerous informational Web sites rely on a model of content-creation where end-users contribute independently

\(^1\) This is so despite the doctrines of joint authorship and derivative works. See infra Part III.

\(^2\) See infra Part I.


created content to the project; countless computer programs rely on open-source business models, whereby diffuse amateurs contribute to and independently revise elements of the software; and hundreds of bloggers interact with their readers conversationally by posting creative content, allowing readers to comment about and respond to that content, and then responding to reader comments with new content.

Each of these informational markets involves decentralized production of creative works by end-users, who, in that act of consuming the informational product, also add new creative content to the product. Many of these conducers do so for non-monetary motives. For example, programmers involved in an open-source project may be motivated by reputational concerns or a desire to combat perceived corporate dominance of the software industry; contributors to collaborative information production might savor the communal aspect of the conductive endeavor; computer gamers and visitors to MMORGs might contribute because they view their gaming selves and communities as an extension of their real-life selves and communities. In short, conducers often are motivated to contribute to conductive projects for nonmonetizable, inchoate psychological and personal reasons. Yet, even without money and the guiding hand of market-based motivations, these conductive projects are successful enterprises, producing socially useful information and cultural products, and providing a framework for the production of computer operating systems and software.

While the conductive creativity described above occurs under the current copyright regime, that creativity may nevertheless be suboptimal. That is, while some conducer creativity may be occurring in spite of, rather than because of, contemporary copyright law, more creativity could occur under a regime more explicitly recognizing the conducer phenomenon. Three elements of copyright law as currently constituted may impede collaborative conductive activity. First, current conceptions of authorship and fixation fail to acknowledge much of the conductive creativity that today’s digital media culture facilitates. By assuming that works of authorship tend to be the works of singular entities, and that they become immutable once fixed, copyright law ignores the collaborative nature of creative

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9 See infra Part I.
10 See infra Parts I & II.
11 See id.
endeavors now possible. That is, the Copyright Act enshrines a specific theory of authorship, establishing a set of incentives to encourage creativity predicated on that theory. Authorship outside the descriptive confines of that theory is likely produced at a suboptimal level. Second, the Copyright Act’s understanding of derivative works threatens to render the creative contributions of consumers to end-products illegal or at least the sole property of the entities that provide the instrumentalities and initial funding for these projects. Third, the utilitarian underpinnings of the Copyright Act generally assume creative effort is a function of potential monetary return. Yet, conducers are often motivated by psychological and social factors instead of or in addition to monetary payoffs. That is, copyright’s failure to explicitly include these non-financial motives as part of its utilitarian calculus may yield underproduction of conductive creativity.

In short, these antiquated ideas of authorship, fixation, derivative works, and creative motivation fail to anticipate, and thus fail to explain, the conductive activity now possible. Thus, copyright law’s underlying assumptions may fail to provide the appropriate incentives and safeguards to individual participants in this new, conductive information economy — an information economy that involves not only millions of dollars in commerce, but also socially useful information and cultural output. Copyright law should seek to encourage this socially useful and financially lucrative productivity. However, in order to achieve this encouragement, a more robust and fluid conception of authorship — accounting for both authorial and end-user interests as they affect conductive creativity — is necessary. Moreover, a reexamination of the motivating factors behind creativity in an age where informational products are no longer the sole province of profit-minded corporations is needed. Copyright’s utilitarian rationale should be recalibrated to encompass the non-utilitarian — i.e., non-monetizable — motivations of many of today’s conducers, as to ensure an optimal package of incentives to create.

Using online virtual worlds as a model, this article seeks to articulate and develop the conducer phenomena, adding to recent scholarly debate over whether copyright law is a regime of “author’s rights,” or whether copyright law should also account for the rights of end-users. This article travels a middle ground. As even scholars supporting a theory of user’s rights as a vital component of copyright’s regime have stated, copy-

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12 See infra Parts I & II.
13 See, e.g., Jane C. Ginsburg, Authors and Users in Copyright, 45 J. COPYR. SOC’Y 1, 1 (1997).
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right law is first and foremost a regime of authors’ rights. However, theories of authorship and author’s rights alone cannot explain the conductive activity of end-users of copyrighted works the Internet now facilitates, given that much of that activity is beyond the control, let alone the direction, of the initial author. Similarly, the literature on the “user” of copyrighted works largely overlooks the inseparability of a conducer’s concomitant consumption of existing creative works and production of new creative works. More specifically, the end-user’s behavior cannot be explained satisfactorily by current scholarly rationales — “economic,” “postmodern,” “romantic” — for end-uses of creative works.

By examining closely conductive activity in virtual worlds, we can draw general insight into how copyright law should change in order to acknowledge and encourage conductive creativity. The discussion proceeds in five parts. Part I introduces the concept of the conducer — an end-user of copyrighted works who in the process of consuming the original work also produces creative content that is added to the original work. This Part briefly surveys various industries that employ — either explicitly or implicitly — conductive creativity and demonstrates that conducer activity is both financially and socially valuable. Part II focuses on virtual worlds, one of the most salient examples of conductive creativity, briefly explaining what virtual worlds are and demonstrating that they are copyrightable works of authorship. Part II also explains why creativity in virtual worlds is socially useful, and thus a form of creativity copyright law should seek to encourage. Part III examines the assumptions undergirding the Copyright Act, specifically those animating authorship, fixation, derivative works, and motivations to create in the first place, and explains why these assumptions are ill-suited as an incentives framework in the digital age. Part IV — the heart of the article — offers several possible solutions to the problem of incentivizing conducer activity, including doing nothing, a contract approach, a more robust preemption regime, and a proposal for a new category of creative work, a “collaborative virtual work.” This part also responds to possible criticisms of this proposal. Finally, Part V draws

15 See, e.g., Cohen, supra note 14, at 348.
16 The economic theory of the user predicts that a user with specific needs will seek out the most efficient form of creative work satisfying those needs, and then passively consume the work. See Cohen, supra note 14, at 348. A postmodern theory of the user views all meaning and knowledge as relative, suggesting that each user contributes an independent authorial voice to earlier works. Id. at 348. The romantic theory of the user views some users as authors in their own right, consuming creative works in the process of creating new works. See id. For more on theories of the author and other sources, see infra notes 115–123 and accompanying text; Cohen, supra note 14, at 348-49 (summarizing the literature on the “user”).
general conclusions from the discussion in Part IV and applies them to other forms of conductive creativity.

I. CONDUCTIVE CREATIVITY: AN INTRODUCTION

The realities of today’s information economy are very different from those legislators observed when they drafted the last major revisions to the Copyright Act in 1976. That worldview was predicated in large part on the fact that the modes of information production were centralized in the hands of large corporate entities in several specific industries — for example, film, television, music, and software. The tools of production — computers, music recording and filmmaking equipment, printing presses, and so on — were by and large prohibitively expensive to the layman, thus requiring the management of a centralized, coordinating arm and the deep pockets of large corporations. Moreover, these industries faced high transaction costs in the form of communicating across geographic expanses. The Internet as we know it today was but a government research project at the time, and the inexpensive computing and bandwidth necessary to facilitate the large-scale transfer of information over vast distances a thing of science fiction rather than reality. In short, only large, often vertically integrated corporations possessed the economic resources and wherewithal necessary to produce informational culture in any meaningful fashion. Those hoping to become musicians, filmmakers, software engineers, and so forth had few alternatives to a corporate-driven system for content-production. Because corporations were the primary producers of information, arguably the most efficient means of ensuring said production was to ensure these corporations a reasonable return on their investment on untested creative endeavors. This fact is very much reflected in the Copyright Act’s underlying utilitarian rationale and its focus on financial incentives to create, and makes sense so long as corporations are

17 See Lastowka & Hunter, supra note 7, at 975 (suggesting that the 1976 Copyright Act favored centralized, corporate creativity); cf. Tim Wu, Intellectual Property, Innovation, and Decision Architectures, 92 VA. L. REV. 123 (2005) (comparing the effects of intellectual property regimes on centralized and decentralized modes of production).


20 See, e.g., Feist Pub’ns, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 349-50 (1991) (“The primary objective of copyright is not to reward the labor of authors, but ‘to promote the Progress of Science and useful Arts.’ . . . To this end, copyright assures authors the right to their original expression, but encourages others to build freely upon the ideas and information conveyed by a work.”).
the primary investors in creative output, given that corporations are in large part animated by a desire to maximize profits for their shareholders.

By and large, this “story,” describing the world Congress observed in the 1970s — a world in which content production was market-driven, a function of potential returns on initial investments — remained the story explaining the functionality of the content industries through the end of the twentieth century.21 However, during the 1990s, the market realities shaping the information-creation industries began to change rapidly. All at once, the structural forces ensuring corporate dominance of the information industry began to crumble. The cost of the hardware needed to produce content dropped precipitously. By the beginning of the twenty-first century, computers had become another inexpensive commodity, available to millions of consumers and would-be content creators.22 Likewise, computer software permitting consumers to produce music and film on their own computers proliferated rapidly.23 Simultaneously, the Internet evolved from a little-known communicative tool into a necessity of modern life, connecting millions of end-users in the United States and abroad. In short, the costs of the inputs necessary for information production decreased dramatically, just as the costs inherent in communicating with people across the globe dropped precipitously. Armed with a laptop computer and an Internet connection, an enterprising would-be content producer can now sit in a coffee shop in San Francisco, put together a piece of software or music, and send it across the globe to be critiqued by a friend in Budapest, all for under $1000 — the cost of his laptop, the software involved, the Internet connection, and the time invested in the process. That is, the presence of a centralized, market-driven organ that can both orchestrate the various inputs necessary for content creation and afford the investment those inputs require in the information production process is no longer a necessity. In effect, the Internet allows individuals to tap the decentralized resources of the world at large — quite the opposite of a centralized, vertically integrated, profit-driven corporation.

Thus, just as the printing press did 500 years before, the combination of inexpensive hardware and software and the Internet have greatly de-

22 As of this writing, powerful computers are available for as little as $299. See Dell, Basic Entry-Level PCs, http://www1.us.dell.com/content/products/category.aspx/desktops?c=us&cs=19&l=en&s=dhs (last visited May 2, 2006).
mocratized the creative process, increasing the number of contributors to cultural production while weakening the assumption that content can only be created by large corporations. This new mode of content production has been described as “commons-based peer production.” End-users interact with cultural information and then interact with other like-minded amateurs. This activity is self-selected by the individuals involved, and decentralized to the point that no single entity controls the output of the participants. In short, this end-user collaboration is the antithesis of the hierarchical, corporate-driven production model present throughout much of the twentieth century.

The open-source software movement is perhaps the most prominent example of decentralized, end-user production of economically valuable products. Utilized in both for-profit and non-profit settings, the open-source model depends on the contributions of many individuals to a common project without any single individual or entity orchestrating the project or asserting any rights to exclude contributions from the resulting software. In order to avoid the appropriation of the end-product by single entities, participants in the open-source endeavor utilize the GNU General Public License, or some variant. The general framework of such licenses involves individual contributors retaining copyright in their specific contribution, and distributing their contribution free of charge, for use by anyone on the condition that any modifications to the software or any constituent parts that the modifier then seeks to distribute must be licensed on the same free terms as the original contribution and software. Typically, a programmer or group of programmers seeking to accomplish some software task will develop a functional piece of software or component thereof. The developer then makes the program, including its source code, freely available to others, who then test and use the software. These users may find bugs or think of useful features not included in the software. They then report back to a forum set up by the

24 Benkler, supra note 21, at 60.
27 Id.
28 The following description relies on Benkler, supra note 21, at 65-67.
original developers regarding bugs and desired features. This person, someone involved with the original program, or some third party, might attempt to program the new functionality. Once programmed, the new version of software is released anew, under the same non-proprietary license, and tested as before. The process continues until a suitable product is produced, although the testing process by no means ends at this point, as countless end-users might dream up new features or find new bugs. In short, the process is a self-perpetuating, decentralized mode of production that requires no permission from a centralized authority and very low fixed costs. Today, roughly 70% of Web server software runs on the Apache Web server, free software produced under the open-source model.29 Many companies and end-users rely on the GNU/Linux operating system, also produced under the open-source model.30 The scope of open source production is varied, with the Linux operating system involving thousands of participants, while other projects are much smaller in scale. However, the decentralized creation process and licensing scheme generally remains consistent.

A second example of decentralized, collaborative, end-user production is the Wikipedia project, an online encyclopedia of information in dozens of languages with millions of entries on countless subjects.31 Wikipedia utilizes a collaborative authorship tool, the “Wiki,” enabling anyone, from seasoned contributor to anonymous interloper, to edit almost any entry in the project. Edits are stored and easily accessible to other viewers, ensuring transparency. This transparency facilitates the self-policing aspect of Wikipedia, whereby the community of contributors strives to ensure neutrality in the user-created entries. Any content contributed to the project is released under the “GNU Free Documentation License,” a license similar to the GNU General Public License, but adapted to texts. As of August 2006, Wikipedia boasted over 4.9 million articles, 1.3 million of them English entries.32 While debate has raged recently over the editing of controversial entries33 or biographies of politi-

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30 Id.
32 Id.
cians,\textsuperscript{34} for the most part, the self-policing nature of the enterprise has ensured rapid corrections of any faulty or one-sided information.\textsuperscript{35} Moreover, a recent article in \textit{Nature} concluded that a Wikipedia article typically contained four errors, while the same article in \textit{Encyclopedia Britannica} contained three.\textsuperscript{36} A follow-up study by the Wikipedia community showed that the Wikipedia articles \textit{Nature} relied on were typically 2.6 times longer than Britannica’s, suggesting a lower error rate than the vaunted encyclopedia producer.\textsuperscript{37} Regardless, the decentralized, end-user production of Wikipedia functions quite well at producing, correcting, and disseminating large quantities of socially valuable information quickly.

A third example of end-user content-production involves the production of metrics useful in sorting information available on the Internet. For example, Amazon.com, the Internet book-seller, and IMBd.com, an Internet-based source of information on films and the movie industry, rely almost exclusively on end-users to provide relevant reviews and recommendations on their Web sites.\textsuperscript{38} Similar peer-produced ratings regimes exist on countless Web sites, both informational and commercial. For example, businesses like Apple’s iTunes.com and Google’s “Google local”\textsuperscript{39} rely on end-user reviews of the products sold and advertised on their Web sites; Slashdot.org relies on end-users to edit and moderate the informational postings and comments on the site, and digg.com, much like Google’s search engine, relies on its users’ opinions, by way of linking to Web sites, to determine what information is most relevant to their users.\textsuperscript{40} Just as with Wikipedia, decentralized amateurs, rather than centralized professionals, produce relevant content, although the social utility of this content is its sorting function, facilitating quick and accurate access to information available on the Internet.

End-user manipulation of computer programs and electronic devices serve as another example of the conducer phenomena. For example,

\textsuperscript{35} See Benkler, \textit{supra} note 21, at 74.
\textsuperscript{37} See Wikipedia, \textit{Wikipedia: Village Pump (news)}, http://en.wikipedia.org/wiki/Wikipedia:Village_pump_(news)#Nature_follow-up:_How_do_the_article_sizes_compare.3F (last visited May 1, 2006). Of course, the fact that Wikipedia articles are longer could simply mean they are written poorly, while Britannica articles are well-edited and concise. See Schiff \textit{supra} note 31.
\textsuperscript{40} See Digg, http://digg.com (last visited Dec. 27, 2006).
Bungie Software, the makers of the popular Halo gaming franchise, permits their customers to use the gaming engine for various creative endeavors. Some end-users simply “mod,” or create, new “levels,” or scenarios, for the game, which they then share with the Halo gaming community via the company’s Web site. Others create entirely new games, relying on Bungie’s Halo game engine. Yet others utilize the Halo platform for non-gaming endeavors, including filmmaking. Otherwise known as machinima, such film-making involves utilizing the characters and setting of Halo — or any game for that matter — as the narrative vehicle for the film. One popular machinima producer uses the Halo platform as a venue for a talk show involving technology and gaming related issues. Here too, in the arena of computer games, decentralized end-users are producing new creative content without the aid of centralization and deep pockets.

These examples of conductive activity do not fit neatly into existing paradigms of content-production. These end-users produce often staggeringly complex software and massive informational products without the guiding hand of a vertically-integrated organization. No single entity orchestrates the project and no individual “owns” the output of the collaborative effort, although the resources and inputs necessary for the conductive activity are inexpensive and largely owned by the end-users involved in the collaborative project. Transaction cost barriers to collaboration are low to nonexistent, and end-users can communicate via the Internet, quickly sharing information about their projects, whether or not they are constituent components of larger endeavors. This ease of sharing allows end-users to reap many of the benefits of centralized corporate production while maintaining their autonomy. A programmer can tinker with his software code at his leisure, contributing as much or as little as he desires to an open-source project. A contributor to Wikipedia can write few, if any entries, as time permits. Yet, each end-user can benefit from and rely on the collective knowledge the particular end-user and the community create. That is, these collaborators enjoy the benefits of corporate organization — access to information, production facilities, testing and research — without the concomitant rigidities inherent in a vertical hierarchical structure.

41 See Rosen, supra note 5, at 197-203.
42 Id.
43 Id.
45 Id.
These new collaborative paradigms, coupled with the ease of communication and inexpensive availability of computer hardware and software, serve to distinguish these modes of production from the corporate-guided mode of production of the twentieth century. However, the most salient attribute of conductive end-use collaboration arguably is the fact that market-based understandings and assumptions about what motivates end-users to collaborate fail to adequately explain their collaboration. That is, while corporations typically innovate because they stand to profit from that innovation, individual end-users often contribute to collaborative creative projects for reasons beyond monetary motive. In many of the examples discussed above, participants often do not receive remuneration for their efforts. Contributors to Wikipedia do so free of charge and the open source community often develops software without any business model or desire to recoup their investment. Traditional economic theory would predict quite the opposite47 — why would these individuals invest their valuable time and effort with no foreseeable monetary payoff?

This observation highlights the fundamental difference between information production as practiced in the twentieth century, and information production as exists today amongst decentralized collaborators. In short, yesterday’s content producers were motivated largely by money, simply because they were largely corporations; hence, the Copyright Act’s 1976 enshrinement of the utilitarian model of intellectual property incentives. However, unlike corporations, individuals do not always exhibit a monolithic desire for money in exchange for their time and effort. Viewing the world through a black and white lens may assist in constructing models useful in predicting future economic behavior, but it fails to capture the fact that no individual is always profit-minded, or always altruistic, or always rational. Individual motive is entirely dependent on context and circumstance. A contributor to a collaborative project may be motivated by concerns of reputation,48 honor, or notoriety;49 he might be performing this task free of charge to attract potential employers for his next

47 See Benkler, supra note 21, at 5.
48 See, e.g., id. at 43; Eric S. Raymond, The Cathedral and the Bazaar (1999) (“The ‘utility function’ Linux hackers are maximizing is not classically economic, but is the intangible of their own ego satisfaction and reputation among other hackers.”); see generally Catherine L. Fisk, Credit Where It’s Due: The Law and Norms of Attribution, ___ GEO. L.J. ___ (forthcoming) (discussing the relationship between reputation and professional advancement), available at http://ssrn.com/abstract=893150.
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...he may enjoy the act of writing or coding; he might enjoy the thought of challenging the cultural hegemony of corporations; he might simply so enjoy the collaborative project, that money is the last thing on his mind. That is, many motivations animating the desire to contribute to a conductive end-user project are nonmonetizable — they do not fit neatly in a market-based view that rational actors seek to maximize their utility by way of securing financial returns for their efforts. Thus, while sometimes a non-monetary motivation for individual action might dovetail with a monetary motive — for example, the individual performing a task free of charge in the hopes of securing future employment — some social and psychological motivations are simply not fungible with money and fail to act symbiotically with utilitarian rationales predicated on money. Rather, many such socio-psychological motivations are diametrically opposed to the notion of contributing to a collaborative project for the sake of monetary recompense.

As such, the fact that in today’s information economy it is often individual end-users, in addition to corporations, who create informational products suggests that the utilitarian rationale inherent in the Copyright Act fails to explain and thus optimally incentivize some of the creativity that occurs today. Yet, this same utilitarian rationale argues in favor of encouraging diffuse, decentralized end-user content production, as the products these collaborations produce are often monetizable, or at least socially useful. Wikipedia’s collaborators may not earn a dime from their efforts, but society benefits immeasurably from the fact Wikipedia exists. So it is with any mode of content production where the participants themselves are not solely motivated by monetary gain — society nonetheless benefits from the product of their efforts. This inconsistency, between

50 For example, this approach is common in the music industry, where artists often release some of their music free, showcasing their abilities to prospective employers. This is in effect one of the primary features of the social networking Web site, Myspace.com. This is also how many hip hop producers and rappers make names for themselves. See, e.g., WIKIPEDIA, Danger Mouse, http://en.wikipedia.org/wiki/Danger_Mouse (last visited Aug. 1, 2006) (discussing how the artist Danger Mouse’s release of a mash-up album — The Grey Album — free of charge led to paying production gigs with established industry musicians); WIKIPEDIA, 50 Cent, http://en.wikipedia.org/wiki/50_Cent (last visited Aug. 1, 2006) (discussing how rapper 50 Cent rose to prominence after releasing several singles free of charge on the hip hop mix-tape circuit).

end-user motivations and social benefit resulting from the product of those motivations, further distinguishes decentralized end-user conductive behavior from the centralized hierarchical production processes of corporate producer of information. That is, the old regime Congress crafted in 1976 in a world of corporate-driven production of creative works does not account for the non-utilitarian motivations underpinning conductive activity today. Yet, this same utilitarian rationale suggests encouraging conduers, because their output benefits society as whole. In short, the realities surrounding conductive end-user collaboration suggest the copyright regime that governs and encourages creativity should be sensitive to the fact that incentives beyond money motivate conductive activity. However, copyright as currently constituted focuses primarily on monetary recompense under the guise of utilitarian-based incentives rationales.

The 1976 Act, written in an age of corporate production, and its assumptions on authorship, fixation, and utilitarian motivations, thus does not anticipate conductive activity and thus may sub-optimally incentivize and even impede such activity. The remainder of this article, using online gaming in the form of MMORGs, examines how the Copyright Act's assumptions on the nature of authorship and utilitarian underpinnings may in fact undermine, and thus deter, some of the conductive end-user activity outlined above.

II. CONDUCTIVE ACTIVITY IN VIRTUAL WORLDS

A. Virtual Worlds Introduced

Although by no means the sole instance of conductive creative activity, MMORGs serve as a salient example. Millions of people visit MMORGS, or virtual worlds, every day. Generally, MMORGs are real-time virtual environments inhabited simultaneously by thousands of people. Unlike traditional computer games, where the game world exists only so long as the player is playing, virtual worlds are persistent. That is, the MMORG environment exists independent of any specific player, and each individual player’s actions can permanently shape the game world. Gamers interact with the virtual environment and other gamers using an “avatar,” a graphically depicted virtual alter-ego they construct using developer-provided tools.

52 For a more detailed introduction to Virtual Worlds and applicable copyright issues, see Erez Reuveni, On Virtual Worlds: Copyright and Contract at the Dawn of the Virtual Age, 82 Ind. L.J. ____ (forthcoming 2007).


Two types of MMORGS exist, each primarily operated by for-profit corporations. The first are social MMORGs, like the Sims Online, Second Life, and There.com, where the virtual world simulates the real world. Players might build a business, establish a social club, travel to exotic in-world locations, or marry a partner. The appeal of these social MMORGs is the opportunity to take on a new persona and to interact with thousands of other individuals. Participants build virtual communities that function much as any real world community, but exist entirely in virtual space. The second type of MMORGS are fantasy role-playing games set in medieval or science-fiction settings, like World of Warcraft, EverQuest II, and Star Wars Online. In these fantasy-oriented worlds, players seek to accumulate virtual wealth and skill by exploring the virtual world’s geography, fighting monsters, and amassing treasure. Players also form hierarchically organized guilds and fighting bands to further pool resources and experience.

With traditional computer games, developers were entirely responsible for the game’s creative content. Coders created the software infrastructure; visual artists conceived of the game’s graphical environment; story designers put together the basic plots lines and characters. Once all these elements were assembled into a finished product and sold to consumers, developers maintained no ongoing oversight of the consumers’ use of the game. The game possessed finite utility; like any book or film, the game came to an end, its replay value negligible. In contrast, developers only produce a MMORG’s skeleton, creating the story and graphics that serve as the backdrop for the game. To fill the vast empty spaces with creative content, developers rely on and encourage players to create new material by way of the gaming software that the developers integrate into

55 Most virtual worlds require a monthly subscription fee, on top of the cost of the game software.
the game space. Players spend thousands of hours developing their characters and creating virtual chattel. A new architectural structure appears because of player efforts; a distinct literary character emerges from a player’s creative decisions; a virtual poet pens a literary work entirely in the game space. The interplay between developer and player-based creation is fluid with the actions and creations of one affecting the creative responses of the other. This collaborative cycle yields new and evolving plot elements, in-game events, buildings, social groups, and economic structures that neither the developer nor the player can realistically claim sole creative ownership over.

Copyright likely applies to this collaborative process, protecting each of these elements where they satisfy copyright’s two requirements. Copyright’s originality requirement requires that the work be independently created by the author and possess a modicum of creativity. The creativity threshold is extremely low, as a creative spark, “no matter how crude, humble or obvious,” normally suffices. Fixation only requires that the work be fixed in a medium from which it may be perceived, reproduced, or otherwise communicated.

A MMORG would qualify for copyright protection as an audiovisual work, just as the graphical display of a traditional computer game does. This copyright would include original elements of the virtual world, like in-game characters, scenery, sound effects, architectural works, and so on, but not elements deemed uncopyrightable by the principle of scenes a faire, which bars copyright protection for incidents, characters, or settings which are indispensable, or at least standard, in the treatment of a given topic. MMORGs also satisfy fixation, as the code serving as the virtual world’s architecture is fixed both in the developer’s game servers, and in the RAM of the individual gamer’s computer.

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63 Benkler, supra note 4, at 389-90 (describing the collaborative authorship of virtual worlds).
64 Id.
66 Id.
67 Id.
Player-contributions are also fixed in the developer's code base, and thus qualify for copyright if sufficiently "original." These contributions can include literary and visual depictions of the player's character and independently created artistic and literary works. A player may have difficulty claiming copyright in the literal elements of his character if that character remains general enough to be deemed an "idea." However, a player is more likely to receive copyright where the literal elements of his character are merged with graphical elements. For example, comic book and movie characters, when consistently drawn and widely identifiable, often receive copyright. Normally, a player retains limited control over the graphical depiction of his avatar. Most MMORGs provide a finite, preset array of design choices for their players' avatars, thus limiting true creative choice. However, there are games that offer players billions of design choices, from which a player could arguably design a sufficiently original avatar. Thus, where a player develops his character's literary story to the point where that story is sufficiently unique as to be "original," and where the player retains sufficient hard-coded in-game choice as to render his avatar's graphical depiction distinct from the thousands of other avatars present in the game space, the player may retain copyright in his character.

A player is more likely to receive copyright in his artistic and literary contributions to the game space. Some of these contributions suffer from the same design limitations that graphical depictions of avatars do. A player "building" a house or "painting" a picture is constrained by the game's hard-coded preset tools. For example, the player may only be able to choose certain types of building material for his home; or be able to paint only rudimentary paintings; or have access to a limited range of tonalities for his musical composition. These limitations could weaken any copyright claim. At one extreme, if the developer offers players only a few design choices, any copyright claim may suffer from merger problems, as every creative choice will be necessary for creative works of that type. At the other extreme are MMORGs that facilitate player coding of in-

71 See, e.g., Rice v. Fox Broad. Co., 330 F.3d 1170, 1175 (9th Cir. 2003).
72 Gaiman v. McFarlane, 360 F.3d 644, 661 (7th Cir. 2004).
74 For example, City of Villains, a superhero-themed MMORG, offers players billions of choices when rendering an avatar's graphical appearance. See City of Villains, Game Information, http://www.cityofvillians.com (last visited Feb. 25, 2006).
game objects. Creativity in these worlds is limited only by the player's knowledge of code, rather than any inherent game limitation. Most other artistic works will fall somewhere between these two extremes. However, where sufficient choice exists as to permit the creative work to satisfy copyright's originality requirement, copyright could attach.

Finally, a player's independently created in-game literary works would qualify for copyright if sufficiently original. These works do not depend on the developer's prefabricated design tools. Thus, while code may function as "law," limiting the scope of player-created artistic works and avatar depictions, such law is inapplicable to literary works. The player applies his own creativity, independent from the code, to the game space. These works are the most likely of any player creation to qualify for copyright. Thus, both the developer and the player contribute copyrightable material to virtual worlds.

B. Virtual World Creativity is Socially Useful

American copyright law is predicated primarily on a utilitarian rationale. Providing creators exclusive rights over their creations for a limited period of time allows creators to profit from their works, thus encouraging the production of more or better creative works. This inducement increases the amount of creative works the public has access to, thus "promot[ing] the Progress of Science and useful Arts" and increasing the public good. Arguably then, society benefits from the production of cre-

77 See generally LAWRENCE LESSIG, CODE AND OTHER LAWS OF CYBERSPACE (2000).
78 See Sony Corp. of Am. v. Universal City Studios, Inc., 446 U.S. 417, 429 (1984); see also Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569, 578-79 (1994) (holding that the purpose of copyright law is to "to stimulate the creation and publication of edifying matter" and "to promote science and the arts."); Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 349-50 (1991) ("The primary objective of copyright is not to reward the labor of authors, but 'to promote the Progress of Science and useful Arts.' . . . To this end, copyright assures authors the right to their original expression, but encourages others to build freely upon the ideas and information conveyed by a work."); Twentieth Century Music Corp. v. Aiken, 422 U.S. 151, 156 (1975) ("Creative work is to be encouraged and rewarded, but private motivation must ultimately serve the cause of promoting broad public availability of literature, music, and the other arts."); Mazer v. Stein, 347 U.S. 201, 219 (1954) ("The copyright law . . . makes reward to the owner a secondary consideration. . . . [I]t is 'intended . . . to afford greater encouragement to the production or literary [or artistic] works of lasting benefit to the world.") (citations omitted).
79 Feist, 499 U.S. at 349-50.
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ative works, regardless of the medium in which those works are fixed. Thus, society can benefit from creativity in virtual worlds. The fact that MMORPGs are perceived as games does not detract from their utility. First, as Justice Holmes warned in *Bleistein v. Donaldson Lithographic Co.*, artistry is not a prerequisite for copyright. That is, copyright does not discriminate on the basis of subjective aesthetic merit. Non-artistic works are deemed equally valuable. Thus, that virtual worlds are often games does not mean that virtual worlds offer nothing of value to society.

More importantly, virtual worlds are much more than games. The United States military uses virtual worlds to train troops in simulated combat and Arabic. The Center for Disease Control funds the training of emergency response workers using clinics existing virtually in the virtual world Second Life. Therapists rely on virtual worlds as a form of medical treatment for individuals with mental problems. Similarly, virtual worlds serve as educational and acculturative instruments. For example, the University of Southern California’s Center for Research in Technology for Education is developing the Tactical Language Project, a tool using virtual worlds as a means of teaching students languages within a cultural context.

Beyond these uses of benefit to society at large, many individuals take MMORPGs very seriously. Some people earn a living wage from virtual space, and some players invest hundreds of thousands of dollars in vir-

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80 188 U.S. 239 (1903).
81 Id. at 251 (“[i]t would be a dangerous undertaking for persons trained only to the law to constitute themselves final judge of the worth of pictorial illustrations, outside of the narrowest and most obvious limits.”); see also *Mazer v. Stein*, 347 U.S. 201, 214 (1954) (“Individual perception of the beautiful is too varied a power to permit a narrow or rigid concept of art.”).
virtual real estate. For example, in 2005, a Project Entropia participant purchased a “virtual space station” for over $100,000, intending to convert the space station into a “virtual night club.” Similarly, in 2004, a player purchased a virtual island in Entropia for $26,500 dollars, recouping the investment in less than a year by sub-licensing access to his virtual land to fellow gamers. Entropia reports $165 million passed through the game by way of real dollars used to purchase in-game money and assets in 2005, and in 2006 the company plans to launch an ATM card that will be associated not with bank accounts but with Entropia players’ in-game finances. Similarly, a participant in Second Life earns roughly $150,000 dollars from her in-game activities. In fact, real world sale and exchange of in-game assets generates nearly a billion dollars annually, not including the millions of dollars game developers earn from the sales of the software and the monthly subscription fees charged virtual world participants. Corporations are in on the action too. Some buy advertising within virtual spaces. Others serve as middlemen in the exchange of virtual goods. Yet, others sell virtual goods branded with real trademarks or incorporate in the real world, but base their business models exclusively on the


90 BBC News, supra note 89.
91 Id.
92 Id.
93 See Craig, supra note 84.
98 See Leslie Walker, Will Women Go There?, WASH. POST, Jan. 12, 2003, at H7 (discussing how Nike and Levi’s have entered into licensing agreements with There.com to sell virtual versions of their products.).
provision of sales and services in virtual worlds. In-game creations also make the jump to the real world. For example, in 2005, Donnerwood Media, an online entertainment company, licensed Tringo, a bingo-like game existing entirely in the world of Second Life, from its creator for an undisclosed five-figure sum plus royalties. Tringo has since found its way onto cell phones and portable gaming devices.

Money isn’t all that’s at stake in virtual worlds. Some people spend most of their waking lives in MMORGs. Others assert they prefer to spend most of their time in virtual space, and yet others state they would spend most of their time in virtual worlds if they could earn a living wage there. Many MMORG participants invest considerable emotional capital into their online personas, blurring distinctions between real and virtual desires. Virtual world social interaction might lead to real world friendships or even marriage; or it might lead to real world violence, murder, or suicide. Thus, for many, the walls dividing real and virtual are inchoate and often nonexistent. What an individual experiences or achieves virtually can affect their health and well-being in the real world. In short, many MMORG participants’ personhood is deeply intertwined with the virtual world’s they inhabit. These virtual spaces serve as

101 See Wallace, supra note 95.
104 Id.
106 Lastowka & Hunter, supra note 4, at 66-67.
important social and expressive outlets possibly unavailable in the real world. Moreover, what many achieve virtually cannot be easily monetized and replaced, but in fact represents an intimate aspect of their personality. In other words, MMORGS are much more than just games. They are composite narratives authored by thousands of individuals simultaneously; they are communities built and populated by those same people; and they are outlets for individualized, autonomous expression.

Copyright law should seek to encourage the creativity that occurs in MMORGS, both because it is financially lucrative — to both developers and players — and because it is socially valuable — providing unique communitarian and autonomous outlets for individual expression, socializing, and cultural exchange unavailable to them in real life. Unfortunately, the structural assumptions copyright law makes about the nature of authorship, the immutability of fixed works, and the right of authors to control derivative works impede effective legal recognition of the collaborative authorship that takes place in virtual spaces. Moreover, copyright’s utilitarian rationale fails to encompass the non-monetizable motivations of virtual world participants that are better explained by psychological and social motivations beyond the financial pale. That is, copyright law as currently structured fails to recognize, and thus may fail to provide optimal incentives for, the collaborative creative process that occurs in virtual spaces.

III. THE FLAWED ASSUMPTIONS INHERENT TO AUTHORSHIP, FIXATION, DERIVATIVE WORKS AND MOTIVATIONS TO CREATE

A. Authors and Users

Copyright law generally assumes that copyrighted works are the product of a single, guiding author, and that the product of this singular author remains static once fixed. In effect, copyright law enshrines the initial author of any creative work as the arbiter of that work’s final meaning. That is, copyright law generally does not contemplate follow-on au-


111 See Margaret Chon, New Wine Bursting from Old Bottles: Collaborative Internet Art, Joint Works, and Entrepreneurship, 75 Or. L. Rev. 257-76 (1996). For a discussion on some possible exceptions to this observation, and their shortcomings, see infra, notes 124–135 and accompanying text.

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thorical uses of creative works by consumers. Rather, the exclusive rights of the singular author are triggered by any user manipulation, even when the work exists in a medium that invites secondary authors to manipulate and modify the work. These assumptions effectively bifurcate the uses of creative works into productive and consumptive uses. The producer is the author, the single guiding genius whose intellect is the source of creative output that copyright seeks to protect. Conversely, the end-user of the creative product is a passive consumer, content to consume the product within the carefully circumscribed limits of the author’s fixation. These assumptions, even as they existed during the Copyright Act’s last major revision in 1976, rest on faulty grounds. First, authorship is never a wholly original enterprise. Rather, authorship of creative works often depends on the availability of diverse external inputs — like a healthy public domain and a large stock of publicly accessible cultural symbols — which authors may draw upon and reference. Second, creativity does not have a readily identifiable beginning and end. Often, creativity is process-oriented, and not simply a fixed point dividing authorship and consumption. That is, authors often create in response to audience impulses, as opposed to simply drawing upon a well of genius existing independent of end-users. Similarly, users of copyrighted works, even absent the advent of the Internet, are seldom completely passive in their consumption. The economic theory of the user posits that a user of specific consumptive needs will actively seek out the most efficient form of creative work fitting his criteria before passively consuming that work. A “postmodern,” or “polyvocal,” critique of the user posits that meaning is ever-uncertain and knowledge is

113 Fair use may be an exception. See infra Part III.C.
114 Id. at 21.
118 See Cohen, supra note 14, at 348; see also Paul Goldstein, Copyright’s Highway: From Gutenberg to the Celestial Jukebox (2d ed. 2003); Tom W. Bell, Fair Use vs. Fared Used: The Impact of Automated Rights Management on Copyright’s Fair Use Doctrine, 76 N.C. L. REV. 557 (1998).
relative, thus leaving the user to contribute his own voice to preexisting authorial constructs. And a romantic view of the user argues that users actively consume creative works in the process of creating new works, much as authors rely on existing works as inspiration for their works. These criticisms of copyright’s assumptions about authors and end-users in a pre-Internet era are especially apposite in an age of conductive end-use of creative works, with virtual worlds serving as a salient example.

Thus, the binary nature of copyright, dependent on a division between author and reader, or producer and consumer, fails to anticipate the conductive creation the digital age facilitates. The Copyright Act does contemplate some types of collaborative authorship, like joint-authorship, works made for hire, collective works, and compilations, but these forms of collaborative works are ill-suited as a descriptive means of understanding the conductive creativity that occurs in virtual worlds. These categories perpetuate copyright’s assumptions about authorship and consumers by treating collaborative works as though they were nonetheless products of a single, guiding genius.

For example, employees collaborating on a creative work will often produce a work made for hire. The employer is deemed author of the end-product, effectively converting the collaborative work into the product of a single, fictional creator. Likewise, the Copyright Act recognizes “compilations,” of which collective works are a subset. Compilations require the selection, coordination, or arrangement of the compiled work, which may or may not include preexisting copyrighted works, to itself con-

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120 See Ginsburg, supra note 13, at 8; see also Peter Jaszi, On the Author Effect: Contemporary Copyright and Collective Creativity, 10 Cardozo Arts & Ent. L.J. 293 (1992). See generally Michel Foucault, What is the Author? (Donald F. Bouchard & Sherry Simon, trans.), in Robert C. Davis & Ronald Schleifer, Contemporary Literary Criticism: Literary and Cultural Studies 274 (1989) (arguing that authors do not precede their work, but rather are a social construct used to impose control on their work).

121 See Cohen, supra note 14, at 348; Ginsburg, supra note 13, at 7-8.

122 See Cohen, supra note 14, at 348. See also Lawrence Lessig, Free Culture: How Big Media Uses Technology and the Law to Lock Down Culture and Control Creativity (2004); Yochai Benkler, Free as the Air to Common Use: First Amendment Contraints on Enclosure of the Public Domain, 74 N.Y.U. L. Rev. 354 (1999); Hunter & Lastowka, supra note 7.

123 However, their focus on “authors” and “users” limits their utility in explaining the collaborative, ongoing, and decentralized nature of conductive authorship, where conducters are part user, part author, and part collaborator.


125 Burk, supra note 112, at 21-23.


127 Id.
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constitute an original work by a singular author,128 and individual authors may retain copyright in their contribution to the compilation. However, compilations do not anticipate ongoing collaboration. Once the “arranger” of the project “fixes” the contributions to the compilation in some tangible medium, the compilation cannot change. Further collaboration in the form of updating or changing the compilation remains the sole province of the compilation holder. That is, although the contributors might retain copyright in their specific contributions, and thus can alter their work as it exists separate from the compilation, once those contributions are merged into a collective whole, contributors lose any right to alter the compilation. Yet, on-going modifications are the very essence of conductive collaboration. All contributors are both author and user. Thus, compilations also perpetuate the myth of the single, guiding genius.

Finally, creators collaborating on a work might qualify for “joint authorship”129 if each collaborator contributes original, copyrightable expression with the intent that the final product constitute a unified and integrated whole.130 As joint authors, each collaborator enjoys ownership over the entire work.131 But the statute nevertheless considers the end-product the work of a single guiding genius. Moreover, courts interpreting “joint-authorship” claims may reject such claims on the grounds that the claimant, while contributing copyrightable elements to a unified end product, was not “the inventive or master mind.”132 That is, a court may reject a claim of joint authorship because the claimant, although contributing copyrightable material, does not effectively “orchestrate” the project, further perpetuating the myth of single, guiding genius.133 Courts imply this “orchestration requirement” into the Copyright Act using a consequentialist approach to copyright law.134 That approach goes something like this: were judges to apply the literal requirements of joint authorship, too many copyrighted works would have too many “authors.” Too many authors yields prohibitive transaction costs, chilling markets for creative works, because when an individual desires to use a joint work, he must negotiate permissions with each individual owner. Whether this is true empirically is

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128 Id.
129 Id.
130 Id.; Aalamuhammed v. Lee, 202 F.3d 1227 (9th Cir. 2000).
132 Lee, 202 F.3d at 1233 (citing Burrow-Giles Lithographic Co. v. Sarony, 111 U.S. 53, 61 (1884)).
133 Id. at 1233; see also Thomson v. Larson, 147 F.3d 195, 199-203 (2d Cir. 1998); Erickson v. Trinity Theatre, Inc., 13 F.3d 1061, 1067-71 (7th Cir. 1994).
open to debate. Regardless, this consequentialist approach only further exacerbates the fiction of the singular author.

B. Fixation and Derivative Works

Just as with authorship, the Copyright Act makes unrealistic assumptions regarding the nature of creative works. That is, the Copyright Act assumes that a creative work remains static once fixed. This assumption certainly made sense in 1976, when Congress amended the Copyright Act to include the fixation requirements, as the vast majority of creative media were indeed fixed immutably in some physical medium prior to audience consumption. But fixation does not always make sense as an immutable concept in the context of digitized media. The Internet serves as a prime example. Many Web sites exist as collaborative efforts. Manipulation of preexisting text and graphics after the fact is encouraged. However, under current law, digitized textual or graphical creative works become “fixed” the moment they are stored in computer memory or storage media. Thus, any post-fixation creative addition to already fixed creativity will implicate, if not infringe, some exclusive right of the copyright owner.

This problem is exacerbated by the original author’s right to prepare derivative works. An individual creates a derivative work whenever he recasts, transforms, or adapts some preexisting copyrighted work. If the original copyright-holder authorizes the derivative work, the downstream creator retains copyright in the original aspects of the derivative work. However, if the use of preexisting copyrighted material is unauthorized, the downstream creator may lose any rights to the new work, effectively rendering any addition to an existing work the property of the original author. At the very least, the downstream creator will lose copyright over any aspect of the work that isn’t “severable” conceptually from the

136 Burk, supra note 112, at 21.
139 See MAI Sys. v. Peak Computer, Inc., 991 F.2d 511 (9th Cir. 1993).
141 Id. § 103.
142 See, e.g., Pickett v. Prince, 207 F.3d 402 (7th Cir. 2000).
143 Id.
original work. Thus, the combination of a rigid fixation requirement and the derivative works right leave any unauthorized creative manipulation of digitized text or graphics after the point of initial fixation at best unrecognized and at worst illegal. Any alteration of digital works becomes subject to the control of the initial author, permitting the author to deploy copyright law to deter or dominate the collaborative activity that digitization and the Internet facilitate.

This is especially so in the context of MMORGs, where players contribute creative content that the developer cannot reasonably argue originates from it. However, as stated in the End-User Licensing Agreements (EULAs) that every player assents to prior to gaining access to a MMORG, all such contributions and creations are the property of the game developer. That is, players are encouraged to create, but retain no control over their creations. Either player works are unauthorized derivative works that belong to the developers, or they are independently created and copyrightable under an implied license to create, but nevertheless become the property of the developer by waiver or assignment. Given that courts uphold the validity of clickwrap EULAs where consumers have an opportunity to review terms and those terms are not unconscionable or otherwise against public policy, any player-initiated creative work occurring in MMORGs becomes the property of the developer.

Even assuming virtual world participants have permission to contribute creative content and an absence of EULA terms to the contrary, the concept of derivative works nevertheless fails as a descriptive lens through which to view conductive creativity generally and virtual worlds specifically.

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144 See, e.g., Eden Toys, Inc. v. Florelee Undergarment Co., 697 F.2d 27, 34 n.6 (2d Cir. 1982).
146 See sources cited id.
As with compilation works, derivative works perpetuate the myth of the single guiding genius, albeit in reverse. Either a work is not sufficiently different from the original to qualify as a derivative work, and is thus subject to the control of the original author by way of an infringement suit, or the work is sufficiently different from the original to satisfy the requirements for derivative work status, under the control of the downstream creator. This dichotomy parcels off collaborative creative efforts into discrete increments, each belonging to a specific author. This may facilitate an individual’s control over his authorial contribution to a collaborative project. However, each increment is essentially useless outside the context of the collaborative whole, and any effort to alter the collaborative whole by way of integrating the derivative work requires the permissions of the owner of each constituent part. Any such permissions regime threatens the collaborative enterprise by way of intractable bargaining problems and transactions costs. Of course, avoiding these negotiations in the first place is the purpose of EULA terms refusing derivative work rights to virtual world participants. In short, the complementary notions of fixation and derivative works fail to capture the essence of truly ongoing, collaborative endeavors and thus, coupled with romantic notions of singular authorship, risk under-incentivizing and impeding collaborative creativity.

C. Authors and Fair Use

The Copyright Act does facilitate some use of creative works by end-users after the point of fixation, if deemed fair under a balancing test, by way of the doctrine of fair use. However, because the process involves a balance of factors, fair use rights are inherently ambiguous and unpredictable. Moreover, while fair use might permit integrating portions of old works into new works that further some public policy like First Amendment values, it generally does not permit end-users to use fixed creative works in a commercial setting, at least where such works are non-trans-
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formative — i.e., not different enough from the original work as to preclude concern that the new work will displace demand for the original work.\textsuperscript{155} For example, sampling musical elements of a song in the context of a parody of that song,\textsuperscript{156} or invoking the elements of a story in order to retell the story from a diametrically opposed viewpoint,\textsuperscript{157} may be fair uses, given the importance of First Amendment values like criticism and parody; but using copyrighted creative content in a commercial setting, absent some overarching First Amendment concern, often is not fair use.\textsuperscript{158}

In the context of commercially oriented conductive collaboration — for example open source-based business or information production by Web-based entities relying on advertising revenue — these guiding principles suggest that most unauthorized individual conductive activity will not satisfy fair use’s balance, given the absence of fundamental First Amendment interests.\textsuperscript{159} Similarly, even in the non-profit context, fair use may not be much help. Take Wikipedia, for example. Absent permission from the initial author, downstream revisions of Wikipedia entries cannot be deemed fair insofar as they displace the original author’s work in an infringing, non-transformative fashion. Moreover, fair use as a defense for individual revisions of a collaborative work only makes sense outside the context of that work — for example, where an individual user copies and alters certain entries for use elsewhere. While fair use could conceivably shield such activity, it does nothing to protect a collaborator from a claim that his alterations within a collaborative informational product like Wikipedia, absent authorization to edit, are an infringement.\textsuperscript{160}

Perhaps in the case of virtual worlds, participants may invoke the logic of cases like \textit{Suntrust Bank v. Houghton Mifflin Co.}\textsuperscript{161} — a case which held an author’s retelling of \textit{Gone With the Wind} from a black slave’s perspective was a fair use\textsuperscript{162} — to argue their recasting of preexist-

\begin{itemize}
\item \textsuperscript{155} See, e.g., \textit{Castle Rock Entm’t v. Carol Publ’g Group, Inc.}, 150 F.3d 132, 141-46 (2d Cir. 1998) (use of \textit{Seinfeld} television program in trivia game based on the program not fair use); \textit{Princeton Univ. Press v. Michigan Document Servs., Inc.}, 99 F.3d 1381, 1381-93 (6th Cir. 1996) (en banc) (reproduction of portions of books for academic purposes in a commercial setting not fair use).
\item \textsuperscript{156} \textit{Campbell}, 510 U.S. at 578-93.
\item \textsuperscript{157} \textit{Suntrust}, 268 F.3d at 1276.
\item \textsuperscript{158} \textit{Castle Rock}, 150 F.3d at 141-46.
\item \textsuperscript{159} See, e.g., \textit{Micro Star v. FormGen, Inc.}, 154 F.3d 1107, 1112-13 (9th Cir. 1998) (end-user creation of new game levels for the game \textit{Duke Nukem 3d} was not fair use because of commercial nature of the endeavor).
\item \textsuperscript{160} This would essentially involve hacking a Web site, altering that Web site’s text, and claiming fair use.
\item \textsuperscript{161} 268 F.3d 1257 (11th Cir. 2001).
\item \textsuperscript{162} \textit{Id.} at 1276.
\end{itemize}
ing copyrighted works — the thematic elements of the game world owned by the game developer — in the form of their own expression within the virtual world is a fair use. However, even assuming such a claim would be cognizable, it would apply to the specific end-user, not to the collaborative effort as a whole. That is, although fair use might permit an individual consumer to modify a fixed creative work in some transformative context, fair use does not actually facilitate the integration of that transformative work back into the original work. The transformative work exists separate from the collaborative original, rendering fair use ill-suited to capturing the collaborative element of conductive activity. Integrating an end-user’s individual fair use with the collaborative whole would require the permission of the copyright owner of the collaborative whole and the permission of the end-user protected by fair use. Thus, while fair use may aid individuals in certain, circumscribed contexts, outside the confines of a collaborative work, it does little to facilitate collaborative conduction where an upstream copyright holder refuses to authorize downstream alterations. That is, because fair use is best suited as a defense for non-collaborative, individually-fueled creativity, fair use fails to encompass collaborative, conductive activity, and may perpetuate the single guiding author myth.

D. Authors and the Motive to Create

As mentioned above, the utilitarian rationale animating copyright law does not adequately explain the myriad motivations that lead conducers to contribute to conductive projects like virtual worlds. Virtual world participants, like other conducers, are not necessarily motivated by money. In fact, at this stage in the development of MMORGs, many, if not most, participants arguably are motivated to participate in virtual worlds by a desire for entertainment, a search for community and outlets for self-expression, opportunities for socializing and meeting new people, or some combination of all three. Few participants earn large sums of money, although many do participate in the trade of virtual goods for real money. Thus, as with open source software or collaborative information production, a desire for a monetary payoff does not adequately explain the conductive activity in virtual worlds. The psychological and social motivations of many participants are not easily classifiable under monolithic rubrics dividing motive amongst “utilitarian,” “personhood,” or “fairness” rationales. Rather, conductive creativity in virtual worlds involves unquantifiable personal and psychological motiva-

163 See supra Part I & II.B.
164 See Lastowka & Hunter, supra note 4.
165 See supra Part II.B.
166 See supra note 78 and sources cited.
167 See Radin, supra note 110.
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...tions, coupled with financial motivations for some, but not all, participants. Yet, while virtual world creativity may not be motivated entirely by utilitarian rationales, the output of that creativity, creative works with socially useful spill-over effects for the real world, nevertheless warrant protection under that utilitarian rationale. In short, the recoupment motive inherent in utilitarianism may explain why a corporate entity invests in developing a virtual world, but it does not adequately explain why end-users participate. Thus, copyright's utilitarian rationale fails to adequately explain individual motive in virtual worlds.

On the whole, then, authorship, fixation, derivative works, and motives to create as currently understood create a large hole in copyright's utilitarian cloak. If copyright law does not recognize the creative contributions of conducers in virtual space, then copyright law will also fail to optimally incentivize those contributions. A lack of an appropriate incentives regime will under-produce these socially valuable creative works, in direct contravention of the Copyright Act's utilitarian purpose. As such, lawmakers and courts need to recalibrate copyright's assumptions as to further copyright's utilitarian purpose in an age of conductive, consumer-side creativity.

IV. AUTHORSHIP, DERIVATIVE WORKS, AND FIXATION REVISITED — POSSIBLE SOLUTIONS AND A PROPOSAL

Several means of enhancing incentives to create in a collaborative, conductive context, thus effectuating the Copyright Act's underlying goals, exist. The first is to leave copyright "as is" and to permit the existing legal framework to govern conductive creativity. This approach would rely on existing categories of creative works in the Copyright Act and leave the task of developing a body of conductive copyright law to the courts. A second approach would rely on contract law, granting developers the power to determine privately, through EULAs and other contractual constraints, who controls creativity within their virtual worlds. This is the approach that prevails today. A third approach is a more robust "as is" approach. This approach would rely on existing copyright and contract law, but invoke a more vigorous doctrine of preemption, where courts in---

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168 See John Locke, Second Treatise of Government § 27, at 17 (Thomas P. Peardon ed., 1952) (1690); Wendy J. Gordon, A Property Right in Self-Expression: Equality and Individualism in the Natural Law of Intellectual Property, 102 Yale L.J. 1533 (1993); see also Paul Goldstein, Copyright’s Highway: From Gutenberg to the Celestial Jukebox 11 (1994) (“Bubbling beneath all [intellectual property] . . . is the intuition that people should be able to hold on to the value of what they create, to reap where they have sown.”).
voke both statutory and conflict preemption in order to reach the optimal outcome in which creative incentives are maximized. Finally, a fourth approach would amend the Copyright Act to explicitly recognize a new form of creative work, preempting much of the currently existing EULAs, at least as they affect end-user intellectual property rights.

A. Caveat – Initial Criticisms of Expanding Intellectual Property Rights to Include Conducer Interests

Any alteration to the copyright status-quo as it affects conductive creativity ideally will enhance incentives to create for end-users, while also maintaining incentives for the initial producers to invest in and develop their project in the first instance. Thus, any change in copyright law must respond to several criticisms, some general, and others specific to conducer industries, attendant to any expansion of rights.

1. The Commons and the Anticommons

First, expanding conducer rights must at the very least not decrease aggregate incentives to invest in and create virtual worlds. Of course, if an expansion of rights merely maintains the status-quo, then realistically, no expansion is necessary. Thus, any expansion of rights should increase creative and investment incentives and lead to greater efficiencies in terms of societal welfare. That is, any change should “promote the Progress of Science and useful Arts”169 and increase the public good.170 Two criticisms come to mind in this regard. The first, the so-called “tragedy of the commons,” holds that property rights are necessary in order to maximize the efficient use of resources. Private property rights become necessary because where people have free access to common property they tend to overuse it, as they reap all the benefits of their personal use without bearing a fair share of the attendant costs.171 This criticism calls for strong, centralized, private control of resources in order to efficiently manage and utilize those resources.172

The tragedy of the commons critique, while helpful as an analytical lens for real property, is less applicable to virtual worlds specifically and to the myriad forms of conductive creativity based on computer code more generally. This is so because the basis of conductive creativity, informa-

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169 U.S. CONST. art. I, § 8, cl. 8.
171 See, e.g., Garrett Hardin, The Tragedy of the Commons, 162 SCI. 1243 (1968).
information, is both non-rivalrous and often non-excludable. Simply put, information cannot be over-consumed. One person’s use of another’s data or computer code does not deplete or prevent the other person’s use as one person’s use of another person’s land might. Nevertheless, the story of the commons remains useful by analogy. If all can access information goods without paying their fair share of initial costs, no information goods will be produced. The solution to this coordination problem would be to centralize control of the information resources needed to efficiently create in the hands of a few large, well-financed and managed entities who can best exploit those resources without suffering from free-riding on the commons.

A second criticism, the so-called “tragedy of the anticommons,” is both analogous to, and yet the mirror image of the commons story. Under the story of the anticommons, too many rights to exclude exist, thus permitting rights holders to block each other from making any productive use of the resource. As a result, resources are locked into suboptimal and wasteful uses. The anticommons theory posits both good and bad property rights. A “vertical” property right is one that cuts across all other rights to exclude and permits the resource in question to be used as a whole. Conversely, a “horizontal” right is a property interest that is not itself useful, that cuts against vertical rights. For example, a copyright in a film, secured by copyright or contract law and centralized in the control of a director or producer, is a vertical right, while each individual contribution made by those participating in making the film is a horizontal right. Each individual contributor to the film may well be able to claim copyright in his particular contribution. But if each contributor does so, hundreds of cross-cutting rights must be accounted for before a useful product, the film as a whole, can be marketed and consumed free from encumbrances. Just as with the story of the commons, the anticommons

174 This is often called the “public goods” problem. See, e.g., COHEN, ET AL., COPYRIGHT IN A GLOBAL INFORMATION AGE 6 (2002), and is most relevant in the context of informational goods created primarily for monetary profit.
176 Id. at 670.
178 Id.
calls for concentrating ownership of the various inputs needed to efficiently use a resource in fewer hands.\textsuperscript{179}

Thus, the problem the commons and anticommons literature presents for granting rights to end-users participating in conductive activity is the fear of fragmenting rights to the point that developers of virtual worlds, and any other conductive medium, will decline to invest in that medium in the first instance, for fear of too many rights-holders. Too many rights holders can impede development of the virtual world through threat of exercise of their intellectual property rights and judicial action, rendering investment in virtual worlds a risky proposition for developers and investors alike. As such, any alteration to the existing copyright regime should ensure incentives to invest in creativity on both the developer and user sides are protected, while assuaging developers and investors fearful they will be unable to profit from their enterprise due to excessive meddling by hundreds of rights holders in the form of end-users.

2. Criticisms from Industry

A second series of criticisms of granting rights to conductive end-users, similar to the problem of the anticommons, emerges from the industry responsible for developing and managing virtual worlds.\textsuperscript{180} First, the creators of the virtual environment must be able to maintain control of that environment. Such control, say developers, is incompatible with private intellectual property interests, as those rights can conflict with the managerial decisions a developer might undertake.\textsuperscript{181} A developer might refrain from altering an area of the virtual world for fear of impinging on a player’s intellectual property rights. Likewise, a developer may feel constrained to maintain a virtual world in perpetuity, even if unprofitable, due to the potential liability in destroying the player-produced content housed on the developer’s servers.

Putting aside for a moment the fact that copyrighted works exist outside the physical object in which they are embodied,\textsuperscript{182} thus lessening the fear that a developer would face suit for destroying copyrighted works should the developer decide to close down the virtual world, the control argument remains a valid concern. Control of one’s creative project is a

\textsuperscript{179} See Lemley, supra note 173, at 534 n.57; Carol Rose, Romans, Roads, and Romantic Creators: Traditions of Public Property in the Information Age, 66 LAW & CONTEMP. PROBS. 89, 103 (2003).


vital ex ante component of any investment calculus. Developers simply won’t invest the large fixed costs, not to mention ongoing variable maintenance costs, required to put together a virtual world upfront\footnote{See Gamasutra, Applying Risk Analysis to Play-Balance RPGs, http://www.gamasutra.com/features/20030611/carpenter_01.shtml (last visited Feb. 28, 2006) (registration required).} if they believe they will not be able to efficiently control their investment. Such fear of loss of control could drastically decrease investment in virtual worlds, thus resulting in reduced conductive activity within these virtual worlds. Thus, just as with the concerns raised by the commons and anticommmons critiques, an alteration of the copyright regime affecting virtual worlds must not lessen developer incentives to invest in the creative enterprise in the first instance. Developer control of their creative projects is a valid concern that should not be overlooked in any effort to revise the copyright bargain.

3. New Technologies

Finally, as with any emerging technology, legislators and courts should be careful not to create laws under a veil of ignorance. In rapidly evolving fields, including computer software and the Internet, it is difficult for a judge or legislative body to craft a legal regime that can adapt quickly to the changes within emerging industries. Pulling the legislative trigger too quickly can result in outmoded and antiquated rules that stifle the very creativity those rules were intended to encourage.\footnote{Some argue that the Digital Millennium Copyright Act is an example of such trigger-happy legislation. See Glynn S. Lunney, Jr., \textit{The Death of Copyright: Digital Technology, Private Copying, and the Digital Millennium Copyright Act}, 87 \textsc{Va. L. Rev.} 813, 819 (2001); Pamela Samuelson, \textit{Intellectual Property and the Digital Economy: Why the Anti-Circumvention Regulations Need to be Revised}, 14 \textsc{Berkeley Tech. L.J.} 519, 519 (1999).} In certain industries it may be more efficient, at least during the industry’s incipience, to permit industry participants to police themselves by way of tacit norms. An alternative may be to legislate in broad, open-ended terms,\footnote{In contrast to the specific rigidities of the Digital Millennium Copyright Act, consider the open-ended nature of the fair use doctrine. See 17 \textsc{U.S.C.} § 107 (2000).} to allow for experimentation in the industry and before the judiciary. Regardless, a careful review of empirical evidence and the economics of specific industries should be a necessary antecedent to any alteration of current copyright law.

B. “As Is”

One means of recognizing the conductive authorship that takes place in virtual worlds relies on existing copyright principles. In \textit{Atari Games}\footnote{See Gamasutra, Applying Risk Analysis to Play-Balance RPGs, http://www.gamasutra.com/features/20030611/carpenter_01.shtml (last visited Feb. 28, 2006) (registration required).}
1836 Journal, Copyright Society of the U.S.A.

Corporation v. Oman, 186 the court analogized a video game to a compilation, holding that while the individual graphical elements of a game screen may not be independently copyrightable, the compilation of the images and the developer’s selection and arrangement of those images can qualify for copyright protection.187 Courts can use a similar approach in the context of player contributions to MMORGS. Courts can apply copyright’s originality and fixation standards to each individual act of in-game creativity in order to ascertain authorship and whether copyright attaches. This creates the inverse legal fiction of a collaborative work. Thus, courts would view each creative contribution to the virtual space independently and separately from the collective whole. This, however, is an imperfect solution. By using existing copyright doctrine, this approach ignores the collaborative nature of authorship in virtual spaces. Moreover, it assumes that each individual work is artistically distinct and severable from the collective whole, which may not always be the case. Finally, it relies on courts to invalidate developer EULAs that effectively render player contributions developer property — something many courts would decline to do.188

Assuming for a moment that courts would invalidate developer EULAs, the “as is” approach fails to address the theoretical and industry criticisms mentioned above189 by granting too many rights and weakening developer control. If each player retains copyright over his contribution, however minute or insignificant, to the virtual world, too many horizontal rights will exist. This is the paradigm case of the anticommons problem. The cost to developers in terms of money and time of coordinating hundreds of cross-cutting intellectual property rights would be immense. Moreover, developers would lose some of the control they enjoy under a EULA regime, where players are required to waive or assign any copyrights they might have to the developer.190 Even without the EULA, developers likely need some form of licensing regime, explicit or implicit, that permits them to manage the virtual world even if that means impinging upon players’ intellectual property rights. Thus, applying the Atari Games compilation approach to virtual worlds could achieve the very result developers and end-users alike should seek to avoid — a decrease in investment in virtual worlds, and as a result, due to fewer virtual worlds existing, a decrease in conductive activity occurring within those worlds.

187 Id. at 245.
188 See sources cited supra note 148.
189 See supra, Part IV.A.
190 See sources cited supra note 146.
C. A Contract-Based Approach

A second approach would rely primarily on contract law to govern conductive industries. This is the approach that predominates today.191 That is, developers, by way of contract-based licensing agreements, decide what sort of rights regime they wish to offer end-users. Should the developer desire sole-authorship, and hence sole copyright, of the virtual world, the developer need only say so in its EULA. Conversely, where the developer wants to encourage collaborative authorship, the developer can structure the EULA accordingly, perhaps also advertising the fact that it permits users to retain some modicum of intellectual property rights in their creations. For example, the developer might integrate a grant-back clause into its EULA, providing users some intellectual property rights while securing a non-exclusive, irrevocable, right to use user contributions in the game space. Essentially all virtual world developers elect to follow the former course, securing all intellectual property rights in the virtual worlds for themselves and requiring players to acknowledge they retain no intellectual property rights in any aspect of the game.192 As of this writing, only one virtual world, Second Life, grants users some intellectual property ownership over their creations.193

1. Current Contractual Regimes

Understandably, the contract approach is the approach preferred by the industry. EULAs permit developers to centralize control of the virtual world, thus negating any fear that end-users will hold-up development and management of the virtual world. Likewise, the contract approach avoids the pitfalls of the anticommons, by eliminating any horizontal end-user rights. Thus, the approach safeguards the incentives of the initial creator. Moreover, players are presumed to read the clickwraps they must accept before entering the game world.194 As such, in the eyes of developers, players receive fair warning as to the lack of end-user rights.195 Players

191 Id.
192 Id.
194 See, e.g., Specht v. Netscape Commc’ns Corp., 306 F.3d 17 (2d Cir. 2002) (approving mass market clickwrap license agreements where sellers provide consumers with reasonably conspicuous notice of the existence of contract terms and consumers unambiguously manifest assent to those terms).
195 Whether or not this is true as an empirical matter is hotly contested. For criticisms of shrinkwrap and clickwrap licenses generally, as not in fact providing meaningful choice to end-users. See Mark A. Lemley, Intellectual Property and Shrinkwrap Licenses, 68 S. CAL. L. REV. 1239 (1995); Charles R. McManis, The Privatization (or “Shrink-Wrapping”) of American Copyright Law, 87 CAL. L. REV. 173, 173 (1999); David Nimmer, et al, Sympo-
are free to vote with their feet and find a virtual world that will meet their intellectual property needs.

This argument merits several responses. As an initial matter, it is far from clear that players in fact do retain meaningful choice. As with any advance in technology, powerful interest groups affected by emerging technologies may find ways, legislatively or privately, to arrogate to themselves the benefits and minimize the risks of the technological change. This is a classic example of the “public choice” account of rights to exclude: powerful interest-groups, fearful of any challenge to the status quo, or simply seeking to profit from change at the exclusion and expense of others, will stifle the emergence of new rights. Those seeking to defend a new, emerging right will be ineffective due to the nascence of the new right. Moreover, defenders of any emerging right will be diffuse and ill-defined, given the incipience of any movement to defend this right. In short, existing interest-groups — here, the virtual world developers — will have the resources and wherewithal to block out those defending end-user interests — here, a diffuse and ill-organized group of, what to many, are people playing games — thus establishing a legal regime beneficial only to the developers. That they can succeed in this endeavor does not mean that their success portends the most efficient or socially desirous outcome. Additionally, the fact that developers can, and largely have, created a beneficial legal regime through private contract suggests that end-users do not in fact possess any meaningful choice voting with their feet. Virtual world participants may not realize they’ve waived any rights until it’s too late, creating a pseudo-lock-in effect should users contribute sufficient content to the game to render exit too costly. Moreover, after investing hundreds of hours in amassing virtual capital in a specific virtual world —
capital that developers claim users have no rights to — users lack, at least officially, any meaningful method of liquidizing their assets and moving them elsewhere. Because it may be years before end-users are united enough to exert meaningful bargaining power vis-à-vis developers, it may be too late to create an optimal incentives scheme when, and if, end-users actually do organize in some way.

Further, end-users may not continue contributing content if they do not in some way control that content. Beyond copyright’s utilitarian rationale, which holds that end-users will not contribute to conductive projects without some incentive to create — a right to exploit their creativity — both Lockean and personhood theories of creativity suggest that players will not produce optimally if they do not retain some modicum of control over their works. Under a Lockean moral rights perspective, players will feel a strong moral connection to their contributions. Should they receive no control over their works, they will cease to create those works. Similarly, under the personhood rationale for intellectual property, players will establish powerful expressive connections with their creations and their environment. Should they lack some modicum of control over these extensions of themselves, they will refrain from exerting optimal effort in creating further expressive connections. Thus, even if a conducer contributes initially because he derives “utility” from the mere act of contributing, he may refrain from further contributions where an absence of some measure of control over his creation weakens the social or psychological utility the contributor derives from subsequent contributions. In short, if EULAs ignore the often intangible creative motivations encompassed by the Lockean and Personhood perspectives on incentives to create, they risk disincentivizing creativity dependent in part on the psychological and social motivations these rationales capture.

In a similar vein, relying primarily on the contracts regime existing in developer EULAs would continue to perpetuate the flawed assumptions underlying the Copyright Act mentioned earlier. Developers can avoid acknowledging the contributions of end-users, even while tacitly, and often expressly, encouraging end-users to contribute to the creative pro-

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200 See generally Gordon, supra note 168.
201 See Radin, supra note 110, at 973.
202 For example, Wikipedia likely would be far less successful if participants lacked some control over their contributions by way of the opportunity to respond to alterations made by others. See Schiff, supra note 31. The fact that many of Wikipedia’s participants contribute in part to secure their reputations amongst the Wikipedia community also suggests without some control — the means of repairing their reputations where alterations have been made to their work-product — contributors would be less eager to continue contributing. See id.
203 See supra Part III.
ject. With a film or a collaborative literary project, the fact a centralized corporate entity is considered the author even though many individuals contribute creatively is not so troublesome, given that once the film or book is complete, that work will not change. The Copyright Act’s assumptions work in these traditional creative fields precisely because those works truly are fixed. However, a virtual world, like other conductive creativity, is an ongoing process in which nothing is ever truly fixed. Thus, to permit developers by contract to say the opposite may not only weaken incentives to create in virtual spaces, but also obscures the conductive nature of virtual world creativity. If the project truly is ongoing, why encourage contractual statements to the contrary? If the Copyright Act’s underlying assumptions are antiquated and ill-suited to the reality of conductive creativity, why perpetuate them by contract? In short, while the contract approach may avoid some of the pitfalls predicted by the anticommons literature and industry criticism, as presently practiced, it risks distorts the authorial process in ongoing conductive works and ignores the evolution of creative production from something guided by a single guiding force to something guided by the impulses and creativity of thousands of collaborators.

2. An Alternative Contractual Regime

Notwithstanding the foregoing discussion, a contractual regime can work in the context of virtual worlds. As noted earlier, Second Life grants its users some intellectual property rights. Specifically, Second Life permits users to retain intellectual property rights in their in-game contributions outside of the game space. Conversely, within the game space, Second Life’s EULA requires users to agree to a perpetual, irrevocable, non-exclusive, royalty-free license that grants the developers the right to use player-created content in media services, to delete player content within the game space, to make copies of player content as necessary for the management of the game space, and to use the content within the game space, regardless of any real-world patent rights players might secure. In short, Second Life’s developers maintain control of the game environment, while users retain rights over their contributions in the real world.

As of this writing, little empirical evidence exists regarding whether Second Life’s regime encourages greater creativity than the EULA re-

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204 See supra note 193 and accompanying text.
205 See id.
206 Id.
207 Id.
gimes in other virtual worlds, or whether the regime enhances or diminishes developer incentives to invest in virtual worlds. However, Second Life’s contractual regime does avoid perpetuating the Copyright Act’s faulty assumptions regarding authorship and fixation, while also implicitly acknowledging both monetary and non-monetary motivations for creativity. The majority of contributors to Second Life may not seek real world profit, motivated instead by unquantifiable psychological and social factors. However, by granting real world rights to in-game creations, Second Life’s developers also actively encourage creativity by way of monetary incentive. Thus, Second Life’s regime successfully combines both monetizable and intangible user motivations, while other EULA regimes do not. Arguably, such a regime will encourage greater creativity than EULA regimes that deny users any rights, given that Second Life’s regime taps into financial and non-monetizable motivations for creativity.

Moreover, Second Life’s regime likely does not reduce developer incentives to invest in virtual worlds ex ante. Second Life’s developer, Linden Labs, reports that in the month of January 2006, participants exchanged over $5 million worth of goods within the game.\(^{208}\) This statistic is significant, as Linden earns its profit by selling participants “linden dollars,” the game’s currency, for real dollars,\(^ {209}\) at a rate of roughly 250 Linden dollars per American dollar.\(^ {210}\) Linden also requires in-game land-holders to pay a subscription fee, in addition to monthly land use fees.\(^ {211}\) That means that for each real dollar’s worth of commerce Linden reports occurring in Second Life, Linden itself earns a profit. While Linden Labs has thus far not reported substantial profits,\(^ {212}\) the fact that over $5 million worth of commerce, from which Linden collects a share, occurs in Second Life in an average month suggests that granting participants rights may in fact encourage developer investment in virtual worlds, or at least ensure the same level of developer incentives to invest in virtual worlds that exist today. The fact that investors continue to fund Linden Labs — including a recent $11 million round of new venture capital —

\(^{208}\) See Craig, supra note 84.


also suggests a regime of player-based rights does not reduce developer incentives.\textsuperscript{213}

More generally, other virtual world developers have begun experimenting with granting players some rights to their virtual assets. For example, Sony, long a steadfast opponent to granting virtual participants any rights, recently sanctioned real world markets for virtual goods for their EverQuest II virtual world.\textsuperscript{214} Sony takes a cut of every exchange, much like an online auctioneer like eBay does,\textsuperscript{215} thus earning greater profits than they would simply from software sales and subscription fees. While Sony did not expressly alter their EULA to grant end-users intellectual property rights, the very fact of sanctioned virtual trading for real money implies players retain some rights in their virtual possessions, given that any market for goods requires some element of control to render the market practical. At the very least, Sony’s move — which it plans to expand to all of its virtual world games\textsuperscript{216} — suggests that expanding the scope of player rights does not threaten to weaken developer incentives to invest in virtual worlds. If anything, it may strengthen them, given the opportunity for greater profits.

Of course, granting players the right to sell virtual goods is not the same thing as granting players the right to control their copyrightable contributions. Yet, Sony’s sanctioned virtual markets, combined with Second Life’s grant of intellectual property rights to players, suggests that at the very least, granting some rights to players does not decrease developer incentives as they exist today to invest in virtual worlds. Absent greater empirical evidence, concluding that granting players rights would increase developer incentives to invest in virtual worlds may be premature. However, the examples of Sony and Linden Labs do suggest that developers will continue to invest in virtual worlds even if players do have rights. In other words, a contractual regime similar to Second Life’s, or some derivative thereof, may in fact be an efficient means of encouraging the conductive activity that occurs in virtual worlds.

\textsuperscript{213} Id. (discussing plans by Linden Labs to use the funding to expand the player base and make the game more accessible to a wider segment of the market).


\textsuperscript{215} Id.

\textsuperscript{216} See Gamergod, Sony Station Exchange to be Part of All SOE Games (Oct. 28, 2005), formerly available at http://www.gamergod.com/article.php?article_id =2663.
D. "As Is" Plus

A third approach would integrate the “as is”\textsuperscript{217} approach’s reliance on existing copyright doctrine, while also requiring a more robust preemption regime. This approach involves two components. First, federal courts would be given, either explicitly or implicitly, broad leeway to craft copyright doctrine and remedies based on the type of creative industry in question.\textsuperscript{218} Second, courts would, either pursuant to legislative directive, or on their own initiative, apply a more robust copyright preemption, relying on both statutory preemption as articulated in section 301 of the Copyright Act,\textsuperscript{219} and conflicts preemption.\textsuperscript{220}

1. Industry Tailoring

The Copyright Act is a broad statute governing myriad creative industries, and is at times meticulously specific,\textsuperscript{221} and other times excessively vague.\textsuperscript{222} Initially intended to govern “core” creative works — like literary, musical, dramatic, audiovisual, and pictorial, graphic, and sculptural works\textsuperscript{223} — the Act has been expanded over the years, both legislatively and judicially, to govern works farther away from the core. For example, computer software is considered a literary work,\textsuperscript{224} and in 1990, Congress amended the Copyright Act to protect architectural works.\textsuperscript{225} However, despite the differences inherent to the various creative industries, the Copyright Act applies equally to all of them, at least where the Act does not specifically say otherwise,\textsuperscript{226} articulating a general set of principles that govern creative works. These principles include, for example, the idea-expression dichotomy,\textsuperscript{227} fair use,\textsuperscript{228} and merger,\textsuperscript{229} each of which are broad,

\textsuperscript{217} See supra Part IV.B.
\textsuperscript{219} See 17 U.S.C § 301 (2000).
\textsuperscript{222} See, e.g., id. § 107 (fair use).
\textsuperscript{223} See id. § 102.
\textsuperscript{226} E.g., id. § 114 (sound recordings).
\textsuperscript{227} Id. § 102(b); Baker v. Selden, 101 U.S. 99, 102-04 (1879).
open-ended doctrines which courts are left to interpret on their own with little concrete guidance from Congress.

Looking to the case law, it seems courts have followed through on this implicit interpretive mandate by interpreting copyright more strictly in favor of plaintiffs in the core creative fields, including fiction, film, and comics, while being more lenient towards alleged infringers in creative fields relying upon factual or functional elements, like historical research, factual compilations, and computer software. The foremost example of judicial tailoring of copyright can be seen in the field of computer software, where strong copyright would effectively lockup the functional elements necessary for programming, thus stifling innovation. Thus, where a creative work requires inputs that are functional, factual, or part of the public domain, courts have found ways to tailor copyright to meet the specific structure and reality of a creative field.

229 Articulated, albeit indirectly, in the context of pictorial, graphic, and sculptural works. See id. § 101.
231 E.g., Sid & Marty Krofft Television Prods., Inc. v. McDonald’s Corp., 562 F.2d 1157 (9th Cir. 1977) (finding infringement where defendant’s commercial evoked the “total concept and feel” of plaintiff’s television program).
232 E.g., Walt Disney Prods. v. Air Pirates, 581 F.2d 751 (9th Cir. 1978) (finding no fair use of Mickey Mouse character in salacious counterculture comic).
233 E.g., A.A. Hoehling v. Univ. City Studios, Inc., 618 F.2d 972 (2d Cir.), cert. denied, 449 U.S. 841 (1980) (no infringement where alleged infringer relied on what plaintiff asserted was historical fact).
236 See Altai, 982 F.2d at 706-12; Dogan & Liu, supra note 218, at 207-18. It is worth noting, however, that the proliferation of software patents may threaten this tailored approach.
Authorship in the Age of the Conducer

Generally, where innovation tends to be cumulative, growing by accretion, intellectual property rights should be weaker, as to provide incentives to downstream creators to improve on the initial creation.237 By analogy, virtual worlds fit this “cumulative innovation” paradigm. Developers create the skeleton of the virtual world, and end-users fill in the vast interstices. To borrow from the parlance of patent law, developers are the first-movers, sinking millions of dollars into their respective worlds, which are unfinished products or early versions, while end-users are downstream improvers to the raw inventiveness that is a developer’s skeletal design.238 Neither developer nor end-user creates the final product alone, and thus neither can lay claim to the entire value derived from the product. Thus, much like computer software and historical works, works dependent on the creativity of programmers and historians that have come before, virtual worlds are dependent on the cumulative developmental interplay between initial creator — the developer — and downstream improver — the end-user. As such, courts could tailor their interpretations of copyright’s broad governing doctrines to the structural and developmental realities of virtual worlds.

2. Robust Preemption

In order for any “tailoring” approach to effectively occur, courts would also have to vigorously preempt many of the developer EULAs, or at least some clauses therein, that would impede any such distribution of rights. Specifically, courts would have to apply both forms of preemption analysis relevant to copyright law. First, courts would apply section 301 preemption.239 Under a bare reading of section 301, if a cause of action arising from a contractual clause involves subject matter within the Copyright Act and a right equivalent to one of the Act’s exclusive rights, the clause is preempted.240 Conversely, if a state cause of action contains an extra element rendering the claim qualitatively different from a copyright infringement claim, that cause of action is not preempted.241 However, irrespective of the court’s findings under a 301 analysis, the court would then also apply a conflicts preemption analysis, preempting contractual

238 See Burk & Lemley, supra note 218, at 1609-10.
240 Id.
clauses that “touch upon [an] area of” federal copyright law that Congress has expressly indicated the states may not legislate within, or threaten to upset the “delicate balance” Congress has crafted between incentives to create secured by monopoly and the free flow of information.

However, the case law indicates that courts do not always adhere to the bare language of section 301, let alone conduct a conflicts preemption analysis. Rather, courts include, or exclude, contractual clauses from the language of 301 in an unprincipled and unpredictable fashion, and will also decline or elect to conduct a conflicts analysis, sometimes without a preemption analysis, possibly to reach a specific outcome. For example, in ProCD v. Zeidenberg, the Seventh Circuit conducted a section 301 analysis and found that a shrinkwrap license limiting permitted uses of a computer database were not equivalent to any exclusive rights under the Copyright Act, thus precluding any findings of preemption. Despite the fact that the shrinkwrap license at issue in ProCD threatened the “delicate balance” Congress has crafted by permitting state law to protect facts, something Congress expressly left unprotected, the court made no mention of a conflicts analysis. In Bowers v. Bay State Technology, Inc., a divided Federal Circuit panel, applying only section 301, declined to preempt a licensing provision in a form contract barring reverse engineering of software by end-users. The court deemed the mutual assent present in the licensing contract an “extra element” that rendered the breach of contract action qualitatively different from copyright infringement. The court held thus, despite, as the dissent pointed out, the risk that upholding bans on reverse engineering threatened “an important federal copyright policy reflected in the fair use defense.” The dissent would have applied conflicts analysis and preempted the cause of action.

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244 See Bonito Boats, Inc. v. Thunder Crafts Boats, Inc., 489 U.S. 159 (1989); Goldstein, 412 U.S. at 569-70.
245 86 F.3d 1447 (7th Cir. 1996).
246 Id. at 1452-55.
247 Id.
248 329 F.3d 1317 (Fed. Cir. 2003).
249 Id at 1323-28.
250 Id. at 1324.
251 Id. at 1335 (Dyk, J., dissenting).
252 See id. at 1335-38. Interestingly, the dissent would also have preempted under section 301, as the license in question — a shrinkwrap license — was a contract of adhesion, lacking the “extra element” of mutual assent and bargain the majority relied on to avoid preemption. Id. at 1336-37.
In *Baltimore Orioles, Inc. v. Major League Baseball Players Association*, the Seventh Circuit found the players’ publicity rights equivalent to the rights protected under copyright, thus preempting the players’ claim that Major League Baseball violated their publicity rights by broadcasting baseball games. Again, the court made no mention of conflicts preemption, which may have altered the result, instead equating publicity rights with the exclusive rights copyright grants, despite the fact that numerous other courts find publicity rights are *not* the equivalent of copyright’s exclusive rights. Conversely, some of those courts that find publicity rights are not equivalent to an exclusive right under the Copyright Act even though the court believes the policies promoting publicity rights and copyright are equivalent, then go on to conduct a conflicts analysis that does not preempt the publicity claim on the grounds that the policies are equivalent. Yet, other courts find that publicity claims are not within the subject matter of copyright, reaching the opposite result of *Baltimore Orioles* by conducting the same section 301 analysis, but again ignoring a conflicts analysis.

The underlying point, reflected in the disparate results of these cases, is that preemption doctrine is ambiguous and often unpredictable. The statutory language offers little guidance and the Supreme Court hasn’t addressed the relationship between statutory and conflicts preemption in the copyright context. Moreover, conflicts preemption in the copyright context is itself a vague and ill-defined body of law. The end-result is a lack of uniform preemption doctrine. Take the example of database protection. A judge can let stand state database protections, which protect facts, by arguing that facts are not within the subject matter of copyright under a section 301 analysis, and decline to preempt the state law, despite the fact that if he conducted a conflicts analysis, he would be more strongly compelled to rule otherwise. Or a judge could invoke the logic of *Goldstein v. California*, and refuse to preempt such state legislation because the state is acting in an area explicitly left unprotected. Either way, the judge can uphold the state database law while avoiding the more

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254 *Id.* at 674-79.
255 *E.g.*, Brown v. Ames, 201 F.3d 654 (5th Cir. 2000); White v. Samsung Elecs. Am., Inc., 898 F.2d 1512 (9th Cir. 1993) (en banc); Midler v. Ford Motor Co., 849 F.2d 460 (9th Cir. 1988).
256 *E.g.*, *Ames*, 204 F.3d 654.
257 *Midler*, 849 F.2d 460.
258 See, for example, the proposed federal database protection act introduced in the 106th Congress, H.R. 354. *See generally* Cohen, et al., *supra* 174, at 310-14.
260 *Id.* at 569-70.
difficult policy questions inherent to a conflicts analysis. Thus, without some Congressional guidance or judicial effort to apply both section 301 and conflicts analysis in copyright cases, the “as if plus” approach cannot function. The approach requires the rigorous application of both forms of preemption, in order to invalidate contractual clauses that interfere with the tailored copyright analysis a court would apply generally to the arena of “cumulative innovation” and specifically to virtual worlds.

Even assuming a court can apply the “as is plus” approach unimpeded, the approach may not satisfactorily ameliorate the anticommons and industry critiques mentioned above. The anticommons problem would rear its head in the form of hundreds of individuals claiming intellectual property rights in the virtual world, given the voiding of EULA terms to the contrary. This, by extension, would weaken the developer’s ability to control and manage the virtual world as necessary, thus decreasing incentives to invest in virtual worlds in the first instance. The approach has its merits in that it recognizes both that the creativity that occurs in virtual worlds is not the same as the creativity that occurs in publishing houses or movie lots and that copyright preemption is often an ambiguous mess of a doctrine. Moreover, the approach is flexible in that it would reinforce preemption law and provide federal judges with the tools to better tailor copyright’s broad governing doctrines to the specifics of conductive creativity. But the approach may not sufficiently allay the fears of developers and avoid the pitfalls of fragmentation.

E. A Proposal: A New Class of Creative Works – “Collaborative Virtual Works”

A fourth approach might be to amend the Copyright Act to recognize the unique form of conductive authorship that occurs in MMORGs. Thus, in addition to those works already defined in sections 101 and 102, the Copyright Act might also explicitly recognize a type of “collaborative virtual work.” This category could be defined as follows:

A “collaborative virtual work” is:
(a) Any type of pervasive work to which multiple parties contribute original expression on an ongoing basis
   (i) A “pervasive work” is a work existing in a persistent and adaptable medium, such as, but not limited to, the Internet or programming code, and accessible to those seeking to contribute to it
(b) The entity that provides the instrumentalities that individuals use to contribute original expression to the collaborative virtual

261 See supra Part IV.A.
work will be deemed the owner of the copyright in the collaborative virtual work. This entity is known as the “developer.”

(c) Notwithstanding Part b, each individual contributor will retain copyright in his original contribution so long as that contribution satisfies the requirements of originality and fixation. Each individual may exercise the rights articulated in Section 106 of this act as affect his copyrightable contribution existing separately from the collaborative virtual work. However, the copyright is co-owned by the developer.

(i) For purposes of this subsection, the rights and obligations attendant to such co-ownership are the same as those of joint-authors of a joint work, as defined in Section 101 of this title.

(d) Notwithstanding Part c, an individual who retains copyright in his contribution to the collaborative virtual work may act as though he were the sole owner of the copyright where the individual uses the copyrighted work for personal, non-commercial purposes, in contexts other than the collaborative virtual work.

Effectively, this amendment would grant end-users some rights to their works outside the virtual world, ensure developer control of the actual virtual world, and permit both developer and individual to capitalize on an individual’s contributions to the virtual world. A more robust version might even include a specific sub-section deeming these rights inalienable,262 as to preclude developers from requiring the waiver of these rights in their EULAs, thus avoiding the complications of dealing with preemption, as well as a section granting contributors exclusive rights to their contributions outside the collaborative environment, regardless of whether the use is commercial or not.263 Or, the amendment might require courts to apply both section 301 and conflicts preemption when analyzing contractual provisions involving the proposed subsection, or at least include language in the proposed amendment’s legislative history explicitly indicating the primacy of federal copyright law over contractual clauses involving the proposed right.

However, even without the section making collaborative virtual work rights inalienable or the section making contractual provisions involving the right presumptively preempted, this proposed definition would help overcome copyright’s assumptions about authorship by explicitly recon-

262 As the Copyright Act does with an assignor’s right to terminate a copyright assignment after thirty-five years. See 17 U.S.C. § 203 (2000).

263 This latter provision would be quite similar to Second Life’s licensing regime, in which contributors maintain rights in their contributions outside the game space, but share rights over their contributions with the developer within the game space. See supra note 193 and accompanying text.
ceptualizing authorship and fixation in the MMORG context. Also, by assigning copyright in the MMORG as a collective whole, the amendment ensures that developers retain the discretion to modify the virtual world as necessary. Further, it avoids the transaction costs normally incident to permitting each individual contributor to assert copyright over his contribution to the MMORG that the anticommons literature predicts. The developer need not negotiate with thousands of individual players every time the developer seeks to alter the game. Moreover, by permitting each individual contributor to retain copyright in their specific contribution separate from the game under the rubric of joint-authorship, the amendment permits contributors to benefit from their creative energies as well. For example, a MMORG participant who creates a copyrightable literary work in the game space would retain the right to exercise any of the exclusive rights of a copyright holder outside the ambit of the virtual world. Conversely, this individual would have no control over a game developer’s decision to alter or destroy the area of the virtual world in which the literary work exists — for example in a virtual library or home. Similarly, a player who creates a sufficiently developed character, both literally and graphically, as to receive copyright, could use the character outside the game space, but would have no copyright interest in the character when viewed as part of the virtual world.

Also, this approach avoids complicating commercial uses of individual contributions. For example, what happens when the MMORG developer wants to license the movie rights to the MMORG? Any well-developed characters contributed by individual players would form part of the appeal of any such movie. But a specific player and the game developer may have diametrically opposed ideas as to how to portray the character or whether to make a movie involving the character at all. Under the logic of “joint works” as defined by the Copyright Act, either party can exercise any of the rights granted the copyright owner, subject to an accounting to the other authors. This would encourage negotiations between the relevant parties as to dividing profits and costs while serving as a default regime in case negotiations broke down. Moreover, any non-commercial, personal use would be excluded from the joint-authorship calculus and remain the sole prerogative of the individual contributor, so long as the personal use is outside the confines of the MMORG.

This may seem unfair. After all, why should a player have to account to a developer when the player seeks to publish a book or license a cartoon based on his creation? One response is that just as the MMORG is

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not the creation of the developer alone, neither is the individual’s copy-
rightable contribution. That is, the individual’s contribution depends on
the preexisting structure the developer provides as a backdrop, just as the
developer backdrop depends on the creative efforts of authors who cre-
ated the sword and sorcery fantasy mythos in the first place.266 A second
response is that developers invest millions of dollars developing
MMORGs,267 suggesting that in order to ensure investment in MMORGs,
the definition of “collaborative virtual work” would have to permit devel-
opers to maintain reasonable control over the work.268 Lastly, it is better
for the player to split the difference than to have no copyright at all.
Without an amendment, any court examining a player’s copyright claim would
also have to examine the developer’s likely counterclaim of infringement
of its derivative works right. This analysis would examine the market
ramifications of ruling in favor of the player, given that courts implicitly
analyze market factors when analyzing derivative rights claims.269 Courts
may very well rule in favor of developers in order to avoid any market
harm. Thus, the proposed amendment benefits players more than the sta-
tus quo.

Also, a “collaborative virtual work” copyright would not require de-
velopers to maintain their games in perpetuity. Copyrighted works exist
independent of the material object in which they are embodied.270 So
long as the copyrightable player contribution has been fixed for long
enough to be perceived — something more than mere transitory duration
— copyright attaches.271 Thus, the fact that a developer may have erased
the player’s contribution does not eliminate copyright. Nor does the fact
that a developer has gone out of business and destroyed its entire infra-
structure negate copyright. A player may have difficulty proving his copy-
right if the developer has destroyed the infrastructure in which the player’s
contribution was fixed, but the copyright subsists nonetheless. Thus,
granting such copyright does not act as a disincentive to developer invest-
ment in MMORGs.

Assuming Congress wouldn’t adopt some of the more robust provi-
sions suggested above, like making the collaborative virtual work right an
inalienable right or a mandatory regime, the proposed category serves an-
other beneficial purpose. By articulating what a “collaborative virtual

266 See William Landes & Richard Posner, An Economic Analysis of Copyright
Law, 18 J. LEGAL STUD. 325, 333 (1989) (discussing this point generally).
267 See Gamasutra, supra note 183.
268 But see supra Part IV.C.2, discussing Second Life’s approach.
269 See generally Paul Goldstein, Derivative Rights and Derivative Works in Copy-
271 See id. § 101.
work” is and circumscribing its scope, the amendment would in effect preclude many of the contractual clauses that exist today that force gamers to waive any rights they may have in their virtual world creations. Normally, game developer EULAs would be valid contracts, given players’ opportunity to review the terms of the “clickwrap” before assenting to them. Moreover, these EULAs likely would not be preempted under section 301 of the Copyright Act. Many courts deem the mutual assent present in contracts extra elements sufficient to render a contract claim qualitatively different from a copyright claim. Thus, under the Copyright Act as currently constituted, developer EULAs are valid and not preempted.

However, the fact that Congress will have legislated a new class of copyrightable work specifically articulating the scope of developer and player rights would strongly favor preemption under a conflicts preemption analysis. Although some of the exclusive rights the Copyright Act grants serve as a default regime that parties are free to bargain around, other rights are essential to the Copyright Act’s carefully balanced utilitarian regime. Thus, state and common-law governed rights that impede Congressional objective or intent and threaten this “delicate balance” should be preempted. This is especially so where Congress has expressly indicated that a class of creative works should be governed by copyright’s incentives regime. In effect, such an amendment would minimize the confusion inherent to copyright preemption by signaling that Congress deemed these works an essential component of copyright’s utilitarian balance and would warrant constitutional preemption of EULA provisions purporting to alter that balance. Some EULA terms would survive under this approach, so long as they furthered copyright policies and objectives, but many of the EULA terms developers use today would be preempted under the new regime. As suggested above, Congress could make the proposal mandatory and inalienable, precluding any concerns

272 See sources cited supra note 148.
273 Recall that section 301 preempts any state or common law governed legal or equitable right that both falls within the subject matter articulated in sections 102 and 103 and is equivalent to any of the exclusive rights of section 106. See 17 U.S.C. § 301(a) (2000); supra Part IV.D.2.
277 See id.; see also, e.g., ProCD, 86 F.3d at 1455 (“Some applications of the law of contract could interfere with the attainment of national objectives . . . .”).
279 See Goldstein, 412 U.S. at 569-70.
Authorship in the Age of the Conducer over EULAs. However, given the fact that virtual worlds are relatively new and that the industry is evolving quickly, a more flexible approach permitting case-by-case judicial analysis may be preferable, despite the fact that without a mandatory regime, developers could still include undesirable EULA terms as a means of extracting rights from timid or unsavvy players unlikely to sue. Either way, the important point is that explicitly amending the Copyright Act would facilitate greater use of conflicts preemption in ensuring important copyright policies were not circumvented by contract.

Additionally, the amendment would soften the rigidities of current conceptions of fixation and derivative works. By recognizing the ongoing, persistent nature of MMORGs, the collaborative virtual works category would avoid the antiquated inflexibility of fixation. That is, the amendment would expressly recognize that some forms of creativity are never truly fixed, but are actually ongoing creative efforts. Concomitantly, by eliminating the fixation fiction, the amendment would also avoid the problems inherent to the derivative works doctrine. Because the proposed amendment would specifically recognize ongoing authorial contributions by both players and developers, such contributions would be expressly authorized by the act itself. Thus, any contributions by players would not by default become the intellectual property of the developer. This model would reflect the logic of blocking patents, whereby patent-improvers retain a patent in their improvement, but cannot actually use the patent without first negotiating with the original patent owner, yet permit developers and players to use their copyrights without first negotiating, eliminating any holdout problem. Of course, players or developers could initiate negotiations as to copyright ownership after the point of creation.

This ex ante allocation of copyright benefits and burdens will maximize conducer-player incentives to create in virtual space. It is true that under the current regime some players create in virtual confines despite the fact that they retain no copyright. That is, some players do play the game only for fun. However, common sense suggests that other players will not invest their efforts in in-game creative pursuits without some form of ownership over their creations. Indeed, copyright’s utilitarian rationale assumes this. More players devoting time to complex and thoughtful creative works means an increase in creative works that can be used both within the virtual world and in the real world. And as discussed earlier, in addition to utilitarian theory, both a Lockean moral rights perspective and the personhood rationale for intellectual property predict

280 Which method is preferable is an empirical question incalculable at this time.
282 See supra Part IV.C.
283 See generally Gordon, supra note 168.
that players will create more if given some control over their creativity. That is, developers and players alike benefit when players retain some copyrights in the game. Thus, the amendment would acknowledge both financial and non-monetizable motivations for virtual world creativity.

Moreover, the amendment would implicitly rebuff court precedent hostile to the notion that computer games are only games and not media for end-user authorship. Courts in the 1980s used this sort of rationale to justify dismissing player-based copyright claims in video games. For example, in Midway Manufacturing Co. v. Artic International, Inc., the court held that player participation in the game did not render the gamer an “author” of each different play of the game. The court asserted playing video games was more akin to flipping channels on a TV than to writing a novel and painting a picture. That is, the court assumed that video gamers are passive vessels, exerting no active, permanent influence on the game environment. Admittedly, Midway was written in the 1980s, a time when video games were simple and indeed offered very limited choice to the would-be player/author. But judicial indifference towards video games reflects the deeper failings of the Copyright Act to distinguish between passive and active consumption of copyrighted works. The fact that video games have evolved to a far greater level of complexity than was present in the 1980s and that today’s MMORGs are not merely entertainment vehicles further exacerbates this problem. Thus, an amendment expressly acknowledging the authorial capacity of MMORG players would help distinguish MMORGs from traditional single-player games and correct judicial misconceptions as to the value of such authorship.

Finally, it is important to note that the market may or may not be able to solve the incentives problem in virtual space. This is because players and developers alike are caught up in short-term concerns — a classic example of the Prisoner’s Dilemma. Developers promulgate restrictive EULAs because they fear that granting players control over their creations would threaten the developers’ ability to manage the game. Re-
laxed EULA terms may embolden players to assert property rights and encourage expensive lawsuits, impeding development and expansion of the MMORG. So long as the cost of a hypothetical lawsuit outweighs the potential profits of a less onerous EULA regime, a self-interested developer may not freely allow players to assert copyrights in game elements. Conversely, so long as onerous EULA regimes are in place, players may refrain from attempting to exercise their putative rights out of fear of losing access to the MMORG. As previously discussed, while some developers do in fact permit trade in virtual goods, no MMORG provides players the broad rights the Copyright Act provides; all but one have refused players any intellectual property rights, and only one — Second Life — provides some intellectual property rights. This may remain the case so long as the financial stakes are so high. Of course, if the laws governing the MMORG market are subject to industry capture by developers, the likelihood that the market will yield a more efficient rights-allocation regime is even lower. Yet, as the Prisoner’s Dilemma literature would predict, both developer and contributor would be better off under a regime of less hierarchical control and more end-user participation.

Given these possible distortions, it makes sense to supplement the market. But Congressional involvement is crucial not just for players and MMORG developers. More generally, Congressional involvement would indicate Congressional awareness of the rapidly emerging conducer phenomenon, and that Congress was prepared to recalibrate copyright law as necessary. So long as copyright law remains predicated on antiquated notions of authorship, fixation, derivative works, and motives to create, maximal incentives to conduce will not exist. Maintaining the status-quo in an age of conductive behavior in digital media contravenes copyright’s utilitarian underpinnings. A revision to the Copyright Act as advocated here would be an important first step towards realigning copyright in the digital age to account for the emerging forms of conducer creativity that the 1976 Act did not anticipate.

V. CONCLUSION: GENERAL OBSERVATIONS ON CONDUCTIVE CREATIVITY

The collaborative creativity that occurs in MMORGS is symptomatic of a larger evolution in how consumers interact with creative works and how creative works are produced. Virtual worlds are far from the only example of industries where conductive behavior occurs. Nonetheless, vir-

290 See supra notes 214–217 and accompanying text.
291 See supra Part IV.C.
292 Id.
293 Id.
294 See supra notes 196–198 and accompanying text.
tual worlds serve as an excellent example of conductive creativity, and provide an analytical lens through which to view the larger conducer phenomena. While virtual worlds are not entirely fungible with other conductive activity, they can provide support for some general observations on conductive creativity.

First, the conducer phenomenon far outpaces copyright law as currently constituted. The 1976 Copyright Act did not predict the rise of the conducer. As described in Part I, the realities of content production in the 1970s suggested corporate-driven content production was the only efficient means of producing and commodifying cultural output on any meaningful scale. Some have even described the 1976 Act as favoring centralized, corporate creativity. The Act’s inherent assumptions regarding authorship, users, fixation, and derivative works tend to support this conclusion, given their focus on the single guiding genius of romantic authorship, the immutability of creativity once, figuratively, pen is put to paper, and the belief that creativity is a function of potential monetary returns. The assumptions are antiquated and ill-suited to explaining or properly incentivizing the creativity in virtual worlds and other conductive spheres. At the very least, Congress, courts, scholars, and others need to begin recalibrating these assumptions to fit the reality of conductive productivity.

Second, the realm of the conducer is new, its boundaries and principles inchoate and ill-defined. While the old guard content industries — film, television, publishing, music, and software — are well-financed, organized, and capable of conducting the lobbying and public relations campaigns necessary to safeguard their business models and capture a share or prevent the development of the conducer phenomena, end-users involved in conductive creativity are not. To grant only the old guard, fearful of the nascent challenge to its business models and content supremacy, a seat at the negotiating table is a mistake that could lead to the same capture of the Sonny Bono Copyright Term Extension Act and the

295 Hunter & Lastowka, supra note 7; Wu, supra note 17.
296 See supra note 197.
passage of the Digital Millennium Copyright Act. It would be a mistake to legislate first, and ask questions later, rather than examining the conducer phenomena carefully before legislating a regime to promote such activity.

Third, private contract threatens to swallow entirely the delicate balance of the Copyright Act. This theme has been explored exhaustively elsewhere in the context of shrinkwrap and clickwrap licenses, but is even more important a concern for conductive creativity. Conducers are not your grandfather’s consumers of creative works. They create and produce valuable computer software, literary and artistic works, news, and informational content, and contribute immensely to the sum of human knowledge and the public welfare. Unlike individuals seeking entertainment agreeing to waive their right to reverse engineer or make certain fair uses of copyrighted material, conducers require these very inputs to create. While this article does not advocate the abolition of EULAs, which do have their benefits courts should scrutinize them even more carefully in the context of conducer industries.

Fourth, an amendment to the Copyright Act that explicitly recognizes the conductive creativity in MMORGS or other conductive industries is not the only, or necessarily the best, solution to the problem of incentivizing virtual world creativity. The specifics of the “collaborative virtual work” as laid out above would not neatly apply to the varied types of conducer activity previously described. For example, rendering collaborative virtual works inalienable would threaten open-source software and informational products like Wikipedia whose production models are dependent in part on individual contributors agreeing to waive any copyright claims they may have against downstream contributors. Thus, given the nascent of the conducer phenomena, it may be more prudent for Congress to draft any such amendment, if at all, very broadly, to encompass all forms of conductive activity, and leave it to the courts, as with fair use and the idea/expression dichotomy, to fill in the various interstices. Flexibility and caution, rather than legal rigidities, may be more desirable, given the evolving and rapidly changing nature of technology. In lieu of

299 17 U.S.C. §§ 1201–1205 (2000) (prohibiting, inter alia, the circumvention and distribution of copy protections used to protect digital copyrighted works).
300 See, e.g., Lemley, supra note 195; McManis, supra note 195, at 173; Nimmer, supra note 195, at 19.
301 See generally ProCD, Inc. v. Zeidenberg, 86 F.3d 1447 (7th Cir. 1996); Goluckiewicz & Williamson, supra note 195.
302 See supra notes 265–266 and accompanying text.
303 See supra Part I.
an amendment, Congress might also consider allowing conductive industries to regulate themselves by way of norms, at least until legislators possess a better understanding of the economic and structural aspects of conductive industries. Or it may be preferable to encourage the adoption of the contractual regime utilized by Linden Labs in Second Life. Nevertheless, an amendment — as statute, model act, or as guiding principles — would aid legislators and judges in recalibrating copyright’s underlying assumptions for the digital age, while acknowledging the unique attributes of MMORGs specifically, and conductive creativity generally. Such recalibration will ensure an optimal incentives regime in an age when end-users no longer passively consume creative works, and producers no longer are the sole “authors” of creative works.

Fifth, conductive, collaborative creativity is not motivated solely by a desire for monetary returns. Many conducers collaborate for non-monetizable psychological and social reasons. Copyright’s focus on financial incentives to create made sense in an era where corporations were cultural gatekeepers by virtue of their resources and organizational structure. However, the precipitous drop in the costs of the inputs necessary to produce elaborate and complicated creative works, the increased end-user access to tools of production, and the almost non-existent cost of communicating via the Internet with possible collaborators have facilitated the production of creative works by individuals with no shareholders, and thus no primary motive to maximize profits. In short, the conductive collaboration occurring in virtual worlds, in the open-source community, on the Internet, and elsewhere is not solely a function of potential financial returns. While money may serve as motivation for some, it does not serve as motivation for all. As such, reconceptualizing copyright’s utilitarian “incentives to create” rationale to better encompass non-monetizable motivations will help further encourage socially useful conductive activity that may be under-incentivized in a copyright regime currently anchored primarily to financial motive.

The Copyright Act cannot exist in a vacuum. Technology evolves rapidly and entire industries rise and fall in the time that Congress or the courts catch up with the tectonic shifts. The rise of the conducer is a salient example. At the very least, courts and legislators should remember that the underlying purpose of the Copyright Act is to stimulate creativity for the benefit of the general public. When technological change renders the Copyright Act’s terms ambiguous, the Act must be construed in light of this basic purpose. While the basic purpose of the Act today remains the same, the technology has changed. The Act, both legislatively and ju-

304 See supra Part IV.B.2.
305 See Twentieth Century Music Corp. v. Aiken, 422 U.S. 151, 156 (1975).
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dicially, must be recalibrated in order to acknowledge and encourage con-
ducers. To do otherwise ignores the new realities of an age where
traditional understandings of authorship are inapplicable and where crea-
tivity is increasingly an ongoing, collaborative exercise with no true fixed
end-point. Conducers blur the line between content producer and passive
consumer. Surely, where the conducer leads, the Copyright Act should
follow.