GOOGLE BOOK SEARCH IN THE GRIDLOCK ECONOMY

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Michael Heller's The Gridlock Economy popularizes a concept that Heller has developed over nearly two decades of influential academic writing: the notion that, when it comes to property rights, too many rights-endowed cooks really can spoil the broth. I was asked in this conference to apply Heller's insight to the Google Book Search project, and the request at first seemed natural. Heller himself suggested that Google Book Search might be an apt poster child for the gridlock phenomenon; Google likewise can often be heard to complain, in Heller-esque tones, that the only way to build a comprehensive search engine for books is to take the books without asking. This Essay, however, questions the example and offers a refinement on Heller's theory. Gridlock, I argue, is not simply a catch-all for situations where a large number of permissions are in play. It is more narrowly a reference to situations where a large number of permissions are in play, and those permissions intertwine.

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INTRODUCTION

In *The Gridlock Economy*, Michael Heller popularizes a concept that he has championed in his scholarship for years: the worry that, when it comes to property rights, too many rights-endowed cooks really can spoil the broth. The intuition is that worthwhile projects can be derailed simply because the projects require permission from too many separate parties. Heller's classic example derives from his experience in the Soviet Union. There, in the early 1990s, Heller reports that storefronts sat empty while commerce thrived on adjacent sidewalks. The problem, Heller discovered, was that while "it was easy to set up a kiosk," it was a "nightmare to open a store."¹ Opening a store required separate governmental permissions to sell, to lease, to manage, and so on. And the Soviet authorities would too often allocate those rights for the same storefront to different private owners. The result was a coordination problem that proved insurmountable. Commerce, therefore, moved to the street.

Heller's book tells over a dozen such tales, each time identifying a set of overlapping property rights that, taken together, stand in the way of an efficient transaction. Thus, reports Heller, progress in science and medicine is inefficiently retarded because the use of a single technology often requires patent permissions from dozens or even hundreds of separate sources. Miss but one of those approvals, and the project can be shut down by injunction or taxed with disproportionate cash damages.² Similarly, Heller tells us, the modern cell phone network falls far short of its potential because the airwaves are today divided into parcels that are not only owned by separate firms but also typically assigned to specific, separate tasks. Reverse that patchwork approach, says Heller, and cell phone communication would significantly improve. But no one can, because the relevant rights are already assigned, and the permissions process necessary to recombine them is bogged down by a mess of government policies, strategic behavior, and administrative costs.³

Heller dubs these and comparable situations "gridlock", and in his popular-press account he urges government leaders, entrepreneurs, and everyday citizens not only to watch for the dynamic, but also to tackle the resulting tragedies using "politics, law, finance, and plain neighborliness to reassemble resources."⁴ The "first, crucial, and most important step to solving gridlock," Heller writes, "is to see it."⁵ His goal in *The Gridlock Economy* is to arm his readers with the information necessary to do just that.

^{1.} MICHAEL HELLER, THE GRIDLOCK ECONOMY: HOW TOO MUCH OWNERSHIP WRECKS MARKETS, STOPS INNOVATION, AND COSTS LIVES 145 (2008).

^{2.} *See, e.g., id.* at 49–55 (describing holdout problems associated with gene patents and drug development).

^{3.} *See, e.g., id.* at 79–106 (discussing the challenges of spectrum allocation and licensing).

^{4.} Id. at 198.

^{5.} *Id.* at 187.

This conference is a well-earned celebration of Heller's contribution, both in its original⁶ and now popular-press forms. And I signed up for the event because, in my view, Heller's ideas are right and important. In patent law, for instance, I firmly believe that blocking patents constitutes a dangerous drag on innovation, drowning worthwhile projects in a sea of cumbersome and mandatory permissions. In copyright law, I similarly worry that the growing permissions culture threatens to make it almost impossible to generate certain types of "remix" art that would, if it could, combine short snippets from dozens or even hundreds of prior copyrighted works to make new and worthwhile amalgamations.⁷ In telecommunications regulation, I again share Heller's concern about the fragmented spectrum and the implications it might have for the deployment of new and better wireless technologies and services.

As I put pen to paper, however, I nevertheless find myself frustrated with Heller's book, because it invites those policymakers, entrepreneurs, and everyday citizens to point accusatory fingers without giving them the detail they need to distinguish situations that simply involve large numbers of property rights from situations where those large numbers of rights threaten to trigger gridlock. Heller's point, after all, is not simply that numerosity is bad. He has a richer theory about how permissions intertwine, creating situations where (a) a single missed permission might render worthless a dozen permissions properly acquired, or (b) the last permission received might be wrongly accorded extra weight simply by virtue of its being last.

Heller's primary examples nail this distinction, each time telling a story where one permission impacts the value of another, and thus a large number of permissions can readily form an intertwined and shaky grid. Nevertheless, as I sit here today, I worry that the book leaves this detail uncomfortably implicit and thus, in the end, risks misleading readers into thinking that numerosity itself is the rapscallion. My evidence? The conference panel on which I sit posits that the Google Book Search project is an example for Heller.⁸ Yet the Google project is at its core a problem of numbers alone, lacking almost entirely the interdependence problem that animates Heller's more clever gridlock concept.

^{6.} See, e.g., Michael A. Heller & Rebecca S. Eisenberg, Can Patents Deter Innovation? The Anticommons in Biomedical Research, 280 SCIENCE 698 (1998).

^{7.} See LAWRENCE LESSIG, REMIX 28–31 (2008) (introducing the distinction between the old "read-only" culture and the new "read-write" culture, full of potential for "remix"); Lawrence Lessig, *Free(ing) Culture for Remix*, 2004 UTAH L. REV. 961. In these conversations, I am particularly moved by the obstacles copyright law and trademark law impose when a filmmaker is attempting to make a real-life documentary. In the future, I suspect video game environments will similarly provide a sympathetic story, as game developers increasingly try to set their games inside virtual versions of the real world.

^{8.} Heller himself might have accidentally invited the error, drawing a flawed analogy in the book between the right a landowner might have to control airplane traffic above his land and the right a copyright holder might have to stop Google from including his work in the search database. *See* HELLER, *supra* note 1, at 29–30. The airplane example is indeed a gridlock example because an airplane requires contiguous permissions from adjacent landowners. The copyright example is different in kind because one author's permission does not much impact another's.

This Essay proceeds in three Parts. In Part I, I introduce the Google Book Search project and lay out the intuitions both as to why it might look like a good example for Heller's thesis and why it in fact is not. In Part II, I focus on the legal issues that frame the Google Book Search fight, considering in particular copyright law's fair use doctrine. The fair use doctrine would and should account for Heller's gridlock concern were it to arise on the facts of the case. Finally, in Part III, I turn my attention back to Heller's *Gridlock Economy*. There, I endeavor to do explicitly what I worry the book does not: draw a line between gridlock on the one hand and mere numerosity on the other.

I. THE GRIDLOCK

Google is in the process of creating an online search engine that would allow users to search the full text of published books.⁹ To use the search engine, users enter a search term or phrase, and Google's computers then look for books that use that term or phrase and hence might be of interest.¹⁰ The books about which there is controversy are books that Google obtains from various libraries. The libraries have allowed Google to borrow books from their collections, to scan those books into electronic form, and ultimately to include the resulting electronic information in whatever databases Google builds in order to run its search service.¹¹ But the libraries do not hold copyright in the books they share,¹² and thus the libraries themselves have no power (from a copyright perspective) to authorize Google's acts of distribution, reproduction, and the like.

Google scans the books it borrows in their entirety, and Google stores all of that information in a way that allows Google to respond to any search query that might be submitted in the future.¹³ Thus, presumably, Google saves all or most of the text of every book in some sort of database. And, while Google has reserved for itself the right to use that comprehensive database in a variety of ways¹⁴—a troubling but often overlooked issue that I will leave for another day¹⁵—users of

9. See The Future of Google Books, GOOGLE BOOKS, http://books.google.com/googlebooks/agreement/ (last visited Jan. 23, 2011).

12. 17 U.S.C. § 202 (2006) (distinguishing ownership of an embodiment from ownership of copyright per se).

13. See ROBIN JEWELER, CONG. RESEARCH SERV., RS 22356, THE GOOGLE BOOK SEARCH PROJECT: IS ONLINE INDEXING A FAIR USE UNDER COPYRIGHT LAW? (2007), available at http://www.ipmall.info/hosted_resources/crs/RS22356-070122.pdf.

14. *See* PAMELA SAMUELSON, GOOGLE BOOK SEARCH AND THE FUTURE OF BOOKS IN CYBERSPACE 30 (2010), *available at* http://people.ischool.berkeley.edu/~pam/ GBSandBooksInCyberspace.pdf.

15. This might well turn out to be the fish that swallows the whale. That is, in my view, "non-display" uses of the Google Book Search data seem likely to be of even more economic and social consequence than are the still-controversial "display" uses. After all, a database of all books ever published is an extraordinary treasure trove of knowledge. Data-mining alone would surely generate breakthroughs of enormous consequence, as all that information would finally be in a form where computers could hunt for previously unseen patterns and relationships. So, sure, the Google Book Search engine is nice, but

^{10.} See id.

^{11.} See History of Google Books, GOOGLE BOOKS, http://books.google.com/googlebooks/history.html (last visited Jan. 23, 2011).

Google Book Search will have only limited access to that stockpile of information. Specifically, users will not see the full text of any book unless the relevant copyright holder has given permission.¹⁶ Instead, Google's search engine returns what it describes as "snippets," which seem to be excerpts that run at most a few sentences long and contain the desired search terms.¹⁷ In theory, these excerpts show the user enough information that the user can evaluate whether a given book is indeed of interest, but not so much as to fully satisfy the user's need for the book as a whole. Google has committed to further enforce this balance through proprietary software that will ensure that users cannot see too many excerpts from the same book, for example through repeated searching.¹⁸

Google has promised to leave certain books out of its database entirely, including thesauruses and anthologies of short poems.¹⁹ The idea is to exclude books where most of the value of the book comes from having the ability to access a small relevant excerpt at the right time. In those situations, even Google concedes that including the relevant book in the search engine would completely undermine the author's own ability to sell it. Google also allows copyright holders to "opt out" of the Google Book Search program.²⁰ Specifically, a copyright holder can notify Google that it would prefer to have a specific work removed from the database. Google presumably complies with those requests.²¹

Many copyright holders are deeply unsatisfied with Google's plan, and there is currently underway a class action lawsuit that challenges these practices.²² For our purposes, however, the interesting point is not the litigation per se, but how Google has framed this fight using the intuitions of Heller's gridlock theory. When the copyright suit was first filed, for instance, Google's founder and chief executive officer, Eric Schmidt, wrote an editorial on the pages of the *Wall Street Journal* where he explicitly made the Heller moves.²³ He emphasized that the Google Book Search project would be an enormous boon to society, "putting tens of millions of previously inaccessible volumes into one vast index, every word of

17. *Id.*

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18. *See About Google Books*, GOOGLE BOOKS, http://books.google.com.au/intl/en/googlebooks/about.html (last visited Jan. 23, 2011).

19. Amended Settlement § 4.3, Author's Guild v. Google, Inc., No. 05-CV-8136-DC (S.D.N.Y. Nov. 13, 2009), *available at* http://www.googlebooksettlement.com/Amended-Settlement-Agreement.zip; *id.* at Attach. F.

- 20. *Id.* § 17.33.
- 21. Id. § 3.5.

22. See Class Action Complaint, Author's Guild v. Google, Inc., No. 05-CV-8136 (S.D.N.Y. Sept. 20, 2005). As I write this, there is also pending a proposed settlement to that class action lawsuit, though for various reasons I hope and suspect that the settlement will be rejected by the court. For background, see Statement of Interest of the United States Regarding Proposed Settlement Agreement, Author's Guild v. Google, Inc., No. 05-CV-8136-DC (S.D.N.Y. Feb. 4, 2010).

23. See Eric Schmidt, Books of Revelation, WALL ST. J., Oct. 18, 2005, at A18.

having that data? That strikes me as revolutionary. It is disappointing, then, that the bulk of the Google fight has focused on "display" uses rather than the more important "non-display" uses.

^{16.} *See* SAMUELSON, *supra* note 14, at 1–2.

which [would be] searchable by anyone, rich and poor, urban and rural, First World and Third, en toute langue—and all of course entirely for free."²⁴ Moreover, he argued that Google took those books without asking because the costs of permission would otherwise kill that golden goose.

Google's lawyers and supporters have sounded a similar theme. Copyright law, they tell us in briefs, articles, and amicus filings, allows this sort of unauthorized borrowing under the doctrine of fair use. A brief filed by the copyright Dream Team of UCLA's Neil Netanel, Yale's Jed Rubenfeld, Berkeley's Pamela Samuelson, Vanderbilt's Steven Hetcher, and Duke's David Lange, for example, takes exactly this position.²⁵ "Google Book Search is a fair use," they write.²⁶ "Identifying the rights holder for each title scanned . . . is highly impractical for purposes of a mass digitization effort," not only because the identities of some rights holders is today unknown, but also because "it often is unclear whether the publisher or the author owns the electronic rights."²⁷ Even where the copyright holder can be identified, they say, "there are significant transaction costs for negotiating a license for each use (in addition to the already significant expenditure for scanning the books)."²⁸

Costly permissions standing in the way of a plainly worthwhile social endeavor? No wonder a conference about *The Gridlock Economy* has devoted a panel to the example of Google Book Search. But that is not the full story. Heller's gridlock phenomenon does not simply apply in all situations where a large number of permissions are required; it applies more narrowly in situations where there are a large number of necessary permissions and the value of each permission turns, at least in part, on whether other permissions have also been granted. This is why Heller's example about the telecommunications spectrum resonates. To make efficient use of the airwaves, a telecommunications provider not only needs a large number of frequencies, but also needs them in a relatively consistent geographic pattern. Miss just one chunk in one necessary geographic area, and the efficient network is doomed, no matter how many other chunks are at that point properly licensed. The same can be said for all of Heller's primary examples, from blocking patents to those memorable Russian storefronts.

Google Book Search, however, does not remotely fit the pattern. Sure, the project would be a flop if it were to end up with permission from only three publishers or for something like 20,000 books. And the project hits its apex if it ends up with rights for every book ever published anywhere in the world at any time in history. But there is a wide spectrum between those two extremes, and anywhere in that vast expanse no copyright holder wields veto power over the project, and no copyright holder enjoys power in any way disproportionate to the value of his or her own copyrighted contribution. So, yes, Google Book Search is an example of a project that will require a large number of permissions as it grows

^{24.} *Id.*

^{25.} Editions du Seuil v. Google Inc., Tribunal de Grande Instance de Paris, Declaration of Steven A. Hetcher et al., June 6, 2006 (on file with Author).

^{26.} *Id.* at 8.

^{27.} *Id.* at 10.

^{28.} Id.

to scale. And, yes, some of those permissions might be so costly to obtain that copyright law ought to, in those instances, forgive Google for its decision not to ask. But Google Book Search is not an example of Heller's gridlock. Without substantial interaction across permissions, a story about a large number of permissions is just a story about transaction costs, and if that were Heller's point, he would be about fifty years late to the party.²⁹

Understood in this light, my conversation about Google Books and my discussion of Heller's gridlock concept must from here diverge. With respect to Google Books, the central issue is the degree to which transaction costs of the sort discussed above should excuse Google's unauthorized copying. The legal concept relevant to that fight is the doctrine of fair use, and it is to that doctrine that I turn in the next Part. Afterward, in Part III, I return to Heller and the gridlock concept, using the confusion over Google Books to tease out what I honestly view as the only substantial weakness in Heller's book: the imprecision of Heller's articulation with respect to this key difference between numerosity and gridlock.

II. GOOGLE'S FAIR USE DEFENSE

Section 107 of the Copyright Act empowers a court to excuse, on public policy grounds, acts that would otherwise be deemed to impermissibly infringe a copyright holder's exclusive rights.³⁰ At a high level, the purpose of this flexible "fair use" doctrine is to allow courts to waive off copyright infringement in instances where the costs of protection seem to outweigh the benefits. One way to think of fair use is to recognize that there are a large number of rights and revenues that could plausibly be assigned to authors, and so, if the end goal of the copyright system is only to move a certain amount of value anyway, copyright can and should choose the subset of those rights and revenues that will transfer whatever value is necessary from an incentive perspective, but do so at the lowest external cost in terms of avoidable, undesirable, downstream implications.³¹

A common misconception is that the fair use doctrine excuses any infringing use that is sufficiently valuable to society. But that is not the case. The litigation involving Michigan Document Services provides a helpful example.³² The infringing products in that dispute were packets of photocopied materials. The

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^{29.} See Ronald H. Coase, The Problem of Social Cost, 3 J.L. & ECON. 1 (1960).

^{30. 17} U.S.C. § 107 (2006) (codifying the common law fair use doctrine). I consider the fair use issue more fully in a separate paper, and indeed I draw on that work heavily here. *See* Doug Lichtman, *Copyright as Innovation Policy: Google Book Search from a Law and Economics Perspective, in* 9 INNOVATION POLICY AND THE ECONOMY 55 (Josh Lerner & Scott Stern eds., 9th ed. 2009).

^{31.} See Stewart v. Abend, 495 U.S. 207, 236 (1990) (describing fair use as an "equitable rule of reason"); Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 448 (1984) (same). As the Supreme Court put it, the idea is for courts to excuse infringement in instances where a "rigid application of the copyright statute . . . would stifle the very creativity which that law is designed to foster." *Stewart*, 495 U.S. at 236 (quoting Iowa State Univ. Research Found., Inc. v. Am. Broad. Cos., 621 F.2d 57, 60 (2d Cir. 1980)).

^{32.} Princeton Univ. Press v. Mich. Document Servs., Inc., 99 F.3d 1381 (6th Cir. 1996) (en banc).

packets were made up of excerpts from articles and books, those excerpts having been chosen by university professors for use in their specific university classes. The accused infringer was the copy center that duplicated the excerpts and ultimately sold those packets to students.

Clearly, the infringing products in that fight were socially attractive. They were products that facilitated classroom teaching, and they were produced at the direction of university faculty. Yet the copy center that produced the packets was found guilty of copyright infringement and specifically had its fair use defense rejected.³³

Why was the copy center denied the protection of the fair use doctrine? Because fair use is not simply an inquiry into whether the accused use is worthwhile. Instead, it is an inquiry into whether the owner of the infringed copyright should have influence over when and how the accused use takes place. To deny fair use in the *Michigan Document Services* dispute, then, was not to, in any way, speak ill of the infringing products at issue. Photocopied university materials are tremendously worthwhile products, and no one disputes that fact. To deny fair use was instead to decide that these beneficial but infringing products ought to fall under copyright holders' sphere of influence, with the relevant copyright holders having the right to influence who produces the packets, under what terms, and how much everyone profits from that interaction.³⁴

Two intuitive considerations guided the court in *Michigan Document Services* and, indeed, more generally seem to helpfully frame fair use analysis. The first of these intuitive considerations is the degree to which a finding of fair use would undermine the incentives copyright law endeavors to create. Copyright law in general recognizes rights in authors in order to motivate them to create, disseminate, and in other ways develop their work.³⁵ Fair use is unattractive to the extent it interferes with that goal. Put differently, the issue here is whether repeated findings of fair use in a particular category would, over the long run, reduce an author's incentive to create and care for new work.³⁶ If so, fair use is, on this ground, unattractive, because providing that incentive is copyright law's core purpose.

In *Michigan Document Services*, this first consideration clearly cut against fair use. Works that would be included in university course packets would often also be works whose primary audience would be university students. If the authors of these works could not profit from their use in class, it was not clear from where profit would otherwise come. The prospect of fair use, then, in this

^{33.} *Id.* at 1385–90 (discussing fair use).

^{34.} *See, e.g., id.* at 1387 (discussing how a permission-based system would work in the context of a copy shop).

^{35.} Twentieth Century Music Corp. v. Aiken, 422 U.S. 151, 156 (1975) ("The immediate effect of our copyright law is to secure a fair return for an author's creative labor. But the ultimate aim is, by this incentive, to stimulate artistic creativity for the general public good." (citations omitted)).

^{36.} *See* Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569, 590 (1994) (making explicit that fair use considers these long-run implications in addition to considering the money specifically at issue in the case at hand).

case had an obvious social cost: a fair use finding would have substantially undermined the incentive to produce works like these in the first place.

The second intuitive consideration relevant to fair use analysis is the degree to which uses like the one at issue would thrive even without the protection of fair use. In the Michigan Document Services example, there were two plausible concerns along these lines: (1) it might have been that it was just too expensive for the copy center to identify and contact each relevant copyright holder, and thus enforcing copyright would mean the death of university course packets;³⁷ or (2) it might have been that, once contacted, the copyright holders would ask so high a price that an inefficiently small number of course packets would end up commissioned.³⁸ Neither concern, though, ended up resonating with the court. The costs of identifying and then contacting the relevant copyright holders seemed likely to be adequately addressed by licensing intermediaries like the Copyright Clearance Center.³⁹ These entities reduce costs by offering licensees one-stop shopping for a large number of titles and offering licensors a convenient way to approach and collect from a large number of would-be licensees. Prices, meanwhile, seemed adequately constrained by market competition. After all, no specific author has much market power vis-à-vis academic users because a faculty member can always assign different reading if the originally chosen work is available only at an unreasonable price or subject to unreasonable terms.⁴⁰

Return now to Google Book Search. To the extent that Google invokes fair use to defend the entire Google Book Search program, that defense seems to fail. With respect to the first intuitive consideration, a finding that Google Book Search is fair use would clearly undermine the incentives copyright law endeavors to create. After all, copyright's incentive system only works if authors have confidence that their rights will stay relevant over time. So, while there were in the past authors who wrote their novels before the modern motion picture was

^{37.} Transaction costs have been long recognized as one of the central justifications for the fair use doctrine. The foundational paper is Wendy Gordon, *Fair Use as Market Failure: A Structural and Economic Analysis of the Betamax Case and Its Predecessors*, 82 COLUM. L. REV. 1600 (1982).

^{38.} Market-clearing prices might be inefficiently high, for example, if student willingness-to-pay understates the social value in fact created by their exposure to these works.

^{39.} See Princeton Univ. Press v. Mich. Document Servs., Inc., 99 F.3d 1381, 1387 (6th Cir. 1996) (en banc) (discussing permission fees); Am. Geophysical Union v. Texaco Inc., 802 F. Supp. 1, 7 (S.D.N.Y. 1992) (discussing the Copyright Clearance Center as an example of an intermediary that helps entities gain necessary permissions).

^{40.} Interestingly, there is also a second constraint on licensing rates: the fact that, even after the decision in this case, individual students can make copies on their own and still invoke fair use. That is, the litigated case imposed liability on a formal copy center, in part on the intuition that copy centers operate on sufficient scale that they can bear the costs of complying with the law and, in complying, would meaningfully alter author incentives. An individual student putting coins into a stand-alone copying machine, however, would not fall into the literal or intuitive scope of the opinion. This constitutes a constraint on the total price charged by any copy center. If the copy center itself marks up its product too much, or if authors demand too high a royalty through official channels, students can just opt for the less efficient loophole of copying for themselves.

invented, and while copyright law could have denied those authors any rights over motion picture versions of their works, copyright law instead kept pace with technology, in that way making clear that—even if times change, and even if authors cannot precisely predict how they will ultimately want to exploit their work—the relevance of the promised rights will persist. That same concept governs here. It is entirely plausible that, tomorrow, a substantial portion of the economic value of books will derive from various types of digital exploitation. Google's fair use argument threatens to take that burgeoning value away, and that clearly weighs against a finding of fair use.⁴¹

With respect to the second intuitive consideration, meanwhile, a finding of fair use is not critical in terms of facilitating the creation of the Google search engine because a great deal of the project can be accomplished through negotiated, consensual transactions. Publishers, for example, could act as helpful intermediaries, negotiating terms with Google on behalf of all the authors still under contract with each particular publisher. And even individual authors could opt into the program, for instance if Google were to create a website where interested authors could agree to participate and then themselves upload electronic copies of their work. Similarly, there is no reason to believe that licensing rates would be inefficiently high. As I have pointed out already, Google can build a tremendously useful resource even if at the start it has only 30% of the world's books. That is important because it means that no single author has significant market power vis-à-vis Google. An author who demands a disproportionate share of the project's profit or undue involvement in the project's design can simply be left out of the database until that author makes a more reasonable offer.

Were Google to concede infringement for many of the works at issue, but invoke fair use only to more narrowly excuse its use of books in instances where the costs of identifying the copyright holder is prohibitive, however, Google's claim would be strong. It is enormously difficult to acquire permission with respect to books that are significantly old or books for which the current ownership of rights is hopelessly unclear. As applied to that class of work, Google might be right that the only way to use those books is to invoke fair use.⁴² Google could also fairly point out that the harm to that subclass of authors is small because authors who are so difficult to identify are likely also not authors who are actively profiting from or otherwise marketing their work. The main weakness with this

^{41.} A finding of fair use would undermine incentives in other ways as well. For instance, Google's project creates a new piracy risk, in that Google plans to maintain a massive electronic database of all published books. That risk—and, in particular, authors' inability to control that risk—would further undermine copyright incentives. I discuss these and other issues in my longer paper on Google Book Search. *See* Lichtman, *supra* note 30.

^{42.} My hesitation here comes only because it is easy to imagine the creation of a rights clearinghouse that would facilitate licensing of even these hard-to-license works. Indeed, enormous social value would be created were such a clearinghouse established, because that clearinghouse could then facilitate all sorts of uses of these works above and beyond the index that Google is here litigating. For now, however, such a clearinghouse does not exist. It would therefore be relevant to a court's analysis only if the court believed that, by denying fair use in this case, the court could meaningfully increase the likelihood that such a clearinghouse would come into existence.

argument is that Google in practice makes no effort to distinguish these so-called "orphan" works from the many works for which permission would be practical. A court might require Google to undertake reasonable efforts along these lines as a condition of any fair use finding, or, similarly, might limit the fair use defense to cover only books that fit one of these troubling categories.⁴³

Google and its supporters hear analysis like this and contend that fair use ought to excuse the project anyway. One argument they make is that Google's project is good for authors because the existence of a comprehensive search engine will likely increase demand for books. I hear that move, but I doubt that it should matter much. After all, this argument only tells us that authors are likely better off in a world where Google's project is fair use as compared to a world where no one builds search engines at all. That, however, is not the relevant comparison. Denying fair use here is not tantamount to banning search engines, now and forever. Denying fair use instead forces search engine providers to negotiate with copyright holders and then come to agreement about how to share revenue, how to protect the book database from hackers, and so on.⁴⁴

A second argument Google and its supporters raise is the contention that Google's use should be deemed fair because Google allows copyright holders to opt out of the program. Specifically, a relevant copyright holder can notify Google that it does not want a particular book included in the database, and Google has promised to respect that request. This opt-out provision certainly makes the Google project more attractive than it would otherwise be, but again my view is that this feature does not significantly change the overall fair use analysis. The reason is the fundamental insight that fair use considers "not only the extent of

^{43.} Specifically, a court might well allow Google to scan library books without at that time evaluating the copyright issues, but then require that Google segregate the data it receives, making immediate and full use of any data where it would be impractical to ask permission, but isolating or possibly even deleting any data where permission can be obtained at reasonable cost. My goal here is to be sensitive to the efficiency of Google's overall scanning effort. It would be costly for Google to categorize books while in the midst of physically scanning pages at some participating library. The person running the scanning equipment might not be the right person to make those decisions, and, regardless, the very act of deciding this issue would likely disrupt the flow of the process. The law should therefore allow Google to defer any categorization step until after the relevant scanning is complete. At that point, data could be segregated electronically, and any data that falls outside the fair use defense can either be isolated or destroyed before it has had any real-world impact.

^{44.} None of this should be surprising. All sorts of infringing work benefits authors, and yet authors nevertheless routinely keep their right to say no. Movies that are based on books, for example, typically increase demand for the underlying books. Still, there is no question that the people who produce those movies must seek permission from, and negotiate financial details with, the relevant copyright holders. The reasons are the very ones I sketch above: author incentives are at stake in the question of whether or not a movie should fall under the copyright holder's sphere of influence, and, when movies create value that can be shared by both the motion picture studio and the relevant book author, there is no reason to think that the right balance would be to leave the book author with only his book revenues, while allowing the motion picture studio to itself capture the value of the movie in full.

market harm caused by the particular actions of the alleged infringer, but also whether unrestricted and widespread conduct of the sort engaged in by the defendant would result in a substantially adverse impact on the potential market for the original."⁴⁵ An opt-out works well in a world where Google is the only infringer. In that case, authors could, at low cost, learn about the Google project and communicate their desire to be left out if need be. This would be efficient, in fact, because the costs to authors of finding Google is likely smaller than the costs Google would incur were it required to find each individual copyright holder.

When the analysis shifts to focus on the possibility of countless Googlelike opt-out programs, however, the conclusions reverse. In a world with a large and ever-changing list of opt-out projects—today a search from Google, tomorrow some new startup from Microsoft, the next day some fan site based in Boston, and on and on—authors would be forced to invest substantial sums finding each new project and then notifying each as to whether they desire to participate. The problem would be even worse if some of those opt-out programs were designed strategically to make things difficult on authors, for instance imposing high standards of proof before acknowledging that an opt-out really came from the correct copyright holder. (Infringers have an incentive to do just that, because in an opt-out system infringers benefit if authors find it too expensive to actually engage in the mechanism of opting out.) Thus, opt-out, while better than nothing, does not seem to justify a fair use finding. It simply does not scale.⁴⁶

III. RETURN TO GRIDLOCK

So where does all that leave us? The fight over Google Book Search is entirely a conflict about how copyright law should deal with transaction costs. How much should Google reasonably be expected to invest in the work of identifying and negotiating with authors? Under what circumstances will those costs inefficiently undermine Google's incentive to pioneer the Book Search project? The good news is that copyright law's fair use doctrine is up to the task. The bad news is that the resulting conversation does little in terms of elucidating Heller's important gridlock concern.

The problem, as I have sketched previously but can now state with more precision, is that the individual permissions at issue in the Google fight do not substantially interact. That is, were we looking at the possibility of including any particular book in the database, our analysis would not much vary if that book

^{45.} Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569, 590 (1994).

^{46.} Copyright law is increasingly sensitive to the question of whether a given practice or legal rule in practice scales, in part because of what Napster taught all of us. It was one thing back when I made a few (unsuccessful) unauthorized mix tapes for my various high school crushes. It is quite another when a high school student today purports to make a music mix that he will then share on the Internet with the world. This is similar to the point I made earlier, *supra* note 40, in the context of my discussion of *Michigan Document Services*. As I noted there, small-scale university photocopying by individual students is entirely different from large-scale university photocopying by professional copying services. The efficiency of the large-scale version not only threatens to cause more harm to copyright incentives, but it also promises to create a mechanism by which money could in fact change hands efficiently.

turned out to be the first book at issue, the thousandth book at issue, or the millionth book at issue. No matter which, we would still inquire into how expensive it would be for Google to identify the relevant copyright holder; we would still inquire into how expensive it would be for Google to negotiate with that relevant copyright holder; and we would still then ask how those costs compare to the value of including the book in the database. In instances where the aggregate costs near or exceed the expected value, we would likely agree that fair use should step in. In instances where those costs fall sufficiently below the expected value, we would likely prefer that Google negotiate with the rights-holder and thereby preserve copyright law's incentive function.

That framework is entirely different from the one Heller develops in Gridlock Economy. There, to look at each permission in isolation would be to miss the forest for the trees. After all, Heller's attention is focused on situations where not only are there a large number of separate permissions in play, but also the presence or absence of any one of those permissions threatens to substantially alter the value of the rest. Thus Heller writes about blocking patents, where even a single missing patent license can crush a project that has otherwise been endorsed by a dozen patentees. And Heller writes about the wireless industry where, again, missing even one relevant permission can substantially alter the value or very viability of a contemplated telecommunications service. Even Heller's foundational example-storefronts in Russia-has this interactive element. Having the right to lease and the right to manage is still worthless to someone who does not also, and simultaneously, have the right to sell.

None of this is news to Heller. Quite the opposite, it is easy to turn through The Gridlock Economy and find passage after passage where Heller moves past numerosity and focuses exclusively on the interactions between various permissions. In fact, Heller's first substantive chapter devotes several pages to this very distinction. There, he writes specifically about the difference between complements and substitutes, and he even cites the groundbreaking work of Antoine Augustin Cournot, the economist who in a very real sense pioneered the study of gridlock-albeit without realizing its pervasive importance in the way Heller now importantly makes plain.⁴⁷ Ronald Coase-the originator of the "transaction cost" concept and thus by far the most important figure with respect to problems of numerosity—is, by contrast, mentioned just once book-wide.⁴⁸

And that, in the end, is why the Google Book Search example does in fact play a helpful role in this conference celebrating Heller's accomplishments. The example, after all, sharpens a point that is important to Heller's work but, for whatever reason, got lost even in the context of a conference in his honor: gridlock is not merely a problem associated with large numbers of permissions, it is instead more richly a problem associated with permissions whose values are meaningfully linked, one to another.

I discuss Cournot and his ideas in Douglas Lichtman, Property Rights in 47. Emerging Platform Technologies, 29 J. LEGAL STUD. 615, 624–25 (2000). 48.

See HELLER, supra note 1, at 87.