by Jessica Litman^{*}

The conventional model of scholarly publishing uses the copyright system as a lever to induce commercial publishers and printers to disseminate the results of scholarly research. Recently, we have seen a number of high-profile experiments seeking to use one of a variety of forms of open access scholarly publishing to develop an alternative model. Critics have not quarreled with the goals of open access publishing; instead, they've attacked the viability of the open access business model.

If we are examining the economics of open access publishing, we shouldn't limit ourselves to the question whether open access journals have fielded a business model that would allow them to ape conventional journals in the information marketplace. We should be taking a broader look at who is paying what money (and comparable incentives) to whom, for what activity, and to what end. Are either conventional or open access journals likely to deliver what they're being paid for?

Law journal publishing is one of the easiest cases for open access publishing. Law scholarship relies on few commercial publishers. The majority of law journals depend on unpaid students to undertake the selection and copy editing of articles. Nobody who participates in any way in the law journal article research, writing, selection, editing and publication process does so because of copyright incentives. Indeed, copyright is sufficiently irrelevant that legal scholars, the institutions that employ them and the journals that publish their research tolerate considerable uncertainty about who owns the copyright to the works in question, without engaging in serious efforts to resolve it. At the same time, the first-copy cost of law reviews is heavily subsidized by the academy to an extent that dwarfs both the mailing and printing costs that make up law journals' chief budgeted expenditures and the subscription and royalty payments that account for their chief budgeted revenues. That subsidy, I argue, is an investment in the production and dissemination of legal scholarship, whose value is unambiguously enhanced by open access publishing.

^{*} Professor of Law, University of Michigan. I'm grateful to Anne Cottingim, Francesco Reale, Catherine Brainerd, Lydia Loren, Dan Hunter, Michael Madison, Murl Smith, and Peter Siroka for giving me useful information to chew on, and to Peter DiCola, Peter Hammer, Michael Carroll, Jeff Mackie-Mason, and Jon Weinberg for suggestions, comments, and questions that helped me find my way.

I.	INTRODUCTION
II.	BACKGROUND0
III.	THE LAW JOURNAL BUDGET0
IV.	CALCULATING A CONSTRUCTIVE FIRST-COPY COST0
	<i>A.</i> First-Copy Cost Subsidy Dwarfs the Official Budget0
	B. The Source of the Subsidy Is Spread Out Across the Legal
	Academy
	C. The Copyright System Plays No Role
V.	IMPLICATIONS FOR OPEN ACCESS LAW PUBLISHING0
VI.	IMPLICATIONS FOR NONLEGAL OPEN ACCESS PUBLISHING 0
VII.	CONCLUSION

I. INTRODUCTION

Critics of open access publishing have suggested that while its aims may be laudable, its proposed business models are deficient. Nobody, they insist, has yet demonstrated that open access publishing can generate profits, or even support a nonprofit periodical as a going concern. Authors and publishers should be wary, they continue, until the advocates of open access publishing can show that they have devised a financially viable model.¹ Someone must pay the costs of publishing. Moreover, they suggest that even scholarly publishing has something to fear from proponents of open access:

By introducing an author-pays model, Open Access risks undermining public trust in the integrity and quality of scientific publications that has been established over hundreds of years. The subscription model, in which the users pay (and institutions like libraries that serve them), ensures high quality, independent peer review and prevents commercial interests from influencing decisions to publish. This critical control measure would be removed in a system where the author—or indeed his/her sponsoring institution—pays. Because the number of articles published will drive revenues, Open Access publishers will continually

¹ See, e.g., Ass'N OF LEARNED & PROF'L SOC'Y PUBLISHERS, THE FACTS ABOUT OPEN ACCESS (2005), available at

http://www.alpsp.org/publications/FAOAcompleteREV.pdf.; *see also* Ass'n Litteraire et Artistique Internationale, Memorandum on Creative Commons Licenses (Jan. 2006), *available at* http://www.alai-usa.org/recent_developments.htm ("*Caveat auctor*! Let the author beware before she chooses! A CC license may be appropriate and desirable for some authors, particularly academics, but, given the dangers the license poses to authors' prospects for control over and compensation for their works, the decision to license should be made with a full appreciation of the possible consequences."); Elsevier, Elsevier's Comments on Evolutions In Scientific, Technical and Medical Publishing and Reflections on Possible Implications of Open Access Journals for the UK 2 (Feb. 17, 2004), http://www.elsevier.com/authored_news/corporate/images/UKST1Elsevier_position_paper_on_stm_in_UK.pdf ("The Open Access business model in its current form has not proven its financial viability...").

be under pressure to increase output, potentially at the expense of quality.²

Most of the literature debating the peril and promise of open access publishing has focused on scientific periodicals, where subscription prices are astronomical, research is commonly supported by grant funding, commercial publishers and printers dominate, and research results are time sensitive.³ Scholarly publishing in the sciences is shared among commercial journals and journals published by non-profit learned societies (who may rely on subscription income to fund society activities) but printed by commercial publishers.⁴ Proposals to shift the costs of publishing from subscribers to those who fund scientific research in order to support an open access model have drawn alarm from other disciplines, where research normally receives little outside funding.⁵ A variety of high profile open access journal publishing efforts have launched.⁶ Critics focus on the ability of these efforts to make money as well as the conventional publications they seek to compete with.

The conventional model of scholarly publishing uses the copyright system as a lever to induce commercial publishers and printers to disseminate the results of scholarly research. In *American Geophysical Union v. Texaco*, Judge Leval concluded that photocopying individual articles from scientific journals was not fair use in part because of the nature of the market for scientific research:

Copyright protection is vitally necessary to the dissemination of scientific articles of the sort that are at issue. This is not because the authors insist on being compensated. To the contrary, such articles are written and published without direct payment to the authors. But copyright protection is essential to finance the publications that distribute them. Circulation of such material is small, so that subscriptions must be sold at very high prices. If cheap photoduplications could be freely made and sold at a fraction of the subscription price, Catalysis would not sell many subscriptions; it could not sustain itself, and articles of this sort would simply not be published. And without publishers prepared to take the financial risk of publishing and disseminating such articles, there would

 $^{^2}$ Elsevier, *supra* note 1, at 2. The assumptions underlying the position seem to be, first, that the ability to charge subscribers monopoly prices allows editors to choose the best manuscripts without regard to commercial considerations and that, because the editors of open access journals will need to rely on authors' payments for their operating expenses, they will come under pressure to accept manuscripts of lower quality to make up for the revenue that would otherwise have been supplied by subscription fees.

³ See, e.g., Nature, Nature Debates: E-Access, http://www.nature.com/nature/debates/

e-access/index.html; Nature, Web Focus: Access to the Literature: The Debate Continues, http://www.nature.com/nature/focus/accessdebate/index.html.

⁴ See Frank Gannon, *Ethical Profits from Publishing*, 5 EMBO REP. 1 (2004), *available at* http://www.nature.com/embor/journal/v5/n1/full/7400057.html.

⁵ See, e.g., John Ewing, The Orthodoxy of Open Access, NATURE, Sept. 13, 2003, http://www.nature.com/nature/focus/accessdebate/32.html.

⁶ See, e.g., BioMed Central, http://www.biomedcentral.com/; Creative Commons, http://creativecommons.org/; Public Library of Science, http://www.plos.org/.

104

LEWIS & CLARK LAW REVIEW [Vol. 10:4

be no reason for authors to write them; even if they did, the articles would fail to achieve distribution that promoted the progress of science. Being the type of authorship that the copyright laws were designed to protect, this type of publication has a stronger claim to protection from copying than secretive private functional communications.⁷

The role of copyright in the dissemination of scholarly research is in many ways curious, since neither authors nor the entities that compensate them for their authorship are motivated by the incentives supplied by the copyright system. Rather, copyright is a bribe to entice professional publishers and printers to reproduce and distribute scholarly works. Copyright is the coin these publishers are accustomed to. The authors of scholarly works (and the institutions that pay their salaries and support their research) have had no objection to paying for publishing in the currency of copyrights, since the copyrights had little intrinsic value in the academy. After many years of buying copyrights cheap and selling them dear, commercial publishers (and the scholarly societies and noncommercial publishers who learned to emulate them to compensate their professional printers) have built up a system of proliferating journals at astronomical subscription prices. As technology has spawned new methods of restricting access to works, and copyright law has enhanced copyright owners' rights to do so, the publishers of scholarly journals have begun to experiment with subscription models that charge for access by the article, the reader, or the year. Copyright may have been a cheap bribe when paper was expensive, but it has arguably distorted the scholarly publishing system in ways that undermine the enterprise of scholarship. While copyrights may have seemed a cheap price to induce publishers to bring out scholarly journals, publishers' exercise of copyright privileges in a digital world may already have become too expensive to bear.

If we are examining the economics of open access publishing, then, we shouldn't limit ourselves to the question whether open access journals have fielded a business model that would allow them to ape conventional journals in the information marketplace. We should be taking a broader look at who is paying what money (and comparable incentives) to whom, for what activity, and to what end. Are either conventional or open access journals likely to deliver what they're being paid for?

Because this symposium addresses open access law publishing, I focus most of my attention on law journal publications. Scholarly law publishing presents a particularly straightforward case for analysis, because it lacks many of the complications common to other scholarly publishing. Commercial law journals⁸ and learned law society journals⁹ exist, but they are far outnumbered

⁷ Am. Geophysical Union v. Texaco, Inc., 802 F. Supp. 1, 16 (S.D.N.Y. 1992), *aff'd*, 60 F.3d 913 (2d Cir. 1994).

 ⁸ E.g., Kluwer Law International, http://www.kluwerlawonline.com/; Thomson West, Intellectual Property Law Review, http://west.thomson.com/product/14631153/product.asp.
⁹ E.g., Copyright Society of the U.S.A., Publications,

⁹ E.g., Copyright Society of the U.S.A., Publications, http://www.csusa.org/pubs.htm (describing the Journal of the Copyright Society of the

by law journals published by or affiliated with law schools.¹⁰ Peer-reviewed law journals¹¹ are rare, and the legal version of peer review is particularly mild. Legal research is only infrequently funded by outside grants, and is highly unlikely to generate a successful patent application. Thus, a variety of complications common to scholarly publishing can be put to one side as we examine the economics of law journal publishing. As I will later explain, however, I think it is appropriate to generalize from the example of scholarly legal publishing to scholarly publishing in other fields.

Law journal publishing is one of the easiest cases for open access publishing.¹² We rely on few commercial publishers. The majority of law journals depend on unpaid students to undertake the selection and copy editing of articles. Nobody who participates in any way in the law journal article research, writing, selecting, editing, and publication process does so because of copyright incentives. Indeed, copyright is sufficiently irrelevant that legal scholars, the institutions that employ them, and the journals that publish their research tolerate considerable uncertainty about who owns the copyright to the works in question, without engaging in serious efforts to resolve it. At the same time, the first-copy cost of law reviews is heavily subsidized by the academy to an extent that dwarfs both the mailing and printing costs that make up law journals' chief budgeted expenditures and the subscription and royalty payments that account for their chief budgeted revenues. That subsidy, I argue, is an investment in the production and dissemination of legal scholarship whose value is unambiguously enhanced by open access publishing.

In Part II of this Article, I give a brief sketch of the slow growth of open access publishing in legal research. In Part III, I look at the conventional budget of a student-edited law journal, which excludes all of the costs involved in generating the first copy of any issue, and suggest that we cannot make an intelligent assessment of the economics of open access law publishing unless we account for input costs, like the first-copy cost, that conventional analysis ignores. In Part IV, I develop a constructive first-copy cost based on assumptions about the material included in a typical issue of the law journal, and draw inferences based on a comparison of the expenses involved in the first copy, and the entities that pay them, with the official law journal budget. In Part V, I examine the implications of my argument for open access law publishing. In Part VI, I argue that the conclusions that flow from my analysis apply to nonlegal publishing as well.

Content/NavigationMenu/Publications/Quarterly Journal1/Default800.htm

(describing the American Intellectual Property Law Association Quarterly Journal). ¹⁰ See LEXISNEXIS, DIRECTORY OF LAW REVIEWS (Michael H. Hoffheimer ed. 2005),

U.S.A.); American Intellectual Property Law Association (AIPLA), Quarterly Journal, http://www.aipla.org/

available at http://www.lexisnexis.com/lawschool/prodev/lawreview/default.asp. ¹¹ *E.g.*, Journal of Philosophy, Science & Law, http://www6.miami.edu/ethics/jpsl/

index.html; Journal of Online Law, http://www.wm.edu/law/publications/jol/. ¹² Accord Dan Hunter, Walled Gardens, 62 WASH. & LEE L. REV. 607, 623–24 (2005).

106

LEWIS & CLARK LAW REVIEW

[Vol. 10:4

II. BACKGROUND

As the price of scholarly journal subscriptions has increased, and the costs of mass dissemination have shrunk, scholars and libraries have proposed alternatives to traditional journal publishing. The phrase "open access publishing" has come to describe disseminating material, usually over the Internet, both free of charge and free of conventional copyright restrictions on further dissemination. The most common flavors of open access publishing today are open access journals, which make their contents available for free over the Internet, and open access archives, which maintain free electronic copies of scholarship published in both conventional and electronic journals.¹³ Because journals publishing scientific and medical research are among the most expensive subscriptions, and widespread prompt access to scientific research results is crucial for healthy scientific advance, open access publishing in the sciences and medicine has progressed quickly in surprisingly little time. In a relatively short time, advocates of open access publishing have launched highprofile, peer-reviewed, open access journals and archives. Even commercial publishers have begun to experiment with more-nearly open models of publishing.14

In comparison with science and medicine, open access legal publishing has grown more slowly.¹⁵ Although a handful of law journals published free online versions of their journals as early as ten years ago,¹⁶ most have relied on a combination of conventional print publishing and making their contents available, for a royalty payment, to commercial legal databases Lexis and Westlaw. In the 1990s, a few legal scholars posted preprints of their articles on their personal websites, and in 1996, Pitt Law School launched Jurist, which collected links to law professors' online archives of their own work.¹⁷ In 1995, the Social Science Research Network (SSRN) launched the Legal Scholarship Network, a commercial online depository for legal scholarship that archived law journal drafts and preprints at no charge and made them available to libraries and universities for a modest subscription fee.¹⁸ SSRN now makes the text of all of its abstracts and most of its papers available to individuals for personal

¹⁷ University of Pittsburgh Sch. of Law, Jurist F.A.Q., http://jurist.law.pitt.edu/faq/.

¹⁸ Social Science Research Network, Legal Scholarship Network, http://www.ssrn.com/

¹³ See generally Peter Suber, Open Access Overview, http://www.earlham.edu/~peters/

fos/overview.htm.

¹⁴ See generally Ass'N OF LEARNED AND PROF'L SOC'Y PUBLISHERS, supra note 1.

¹⁵ See Hunter, *supra* note 12, at 622–23, 631.

¹⁶ See, e.g., Duke Law, Journals, http://www.law.duke.edu/journals/ ("Since 1996–97, all issues of Duke's student-edited journals have been published in freely available electronic versions on the Law School website."); Michigan Telecommunications & Technology Law Review, http://www.mttlr.org/html/home.html; Richmond Journal of Law & Technology, http://law.richmond.edu/jolt/about.asp.

lsn/.

non-commercial use at no charge.¹⁹ In 1999, academics set up the Berkeley Electronic Press (BE Press) to compete with SSRN. BE Press offers electronic law journals and archived legal research under what it describes as a "quasi-open access policy."²⁰ Legal scholars' participation in open access archives is increasing steadily, but we have so far seen little movement toward open access journal publishing. In 2005, the Creative Commons launched an open access law publishing project in which it sought to persuade law journals to adopt open access publishing principles. So far, it has managed to persuade only twenty-eight U.S. law journals to sign on.²¹

The standard critique of open access publishing proposals is an economic one: without the access controls and subscription revenues facilitated by conventional copyright arrangements, we will have difficulty funding the publication of high quality, useful research. The critique relies on some implicit assumptions about budget and subsidy that it is useful to make more explicit.

III. THE LAW JOURNAL BUDGET

In preparing this paper, I looked at the budgets of several law journals, but here I base my discussion on a fictional composite, which I call the Model Law Review. The Model Law Review publishes four issues in each annual volume, and each issue contains, on average, three articles and two notes. If you were able to obtain the budget document for the fictional Model Law Review from the fictional law school its student editors attend (which we can call the Model School of Law), you would discover that its budget looks much like the budgets of actual law reviews. The only significant expense noted in the budget document is the cost of printing and mailing issues, which is contracted out to either Darby or Hein, who calculate the charge on a per-page per-subscriber basis. The printer charges \$10,000 for an average issue, so an annual four-issue volume will cost about \$40,000 to print and mail. Model Law Review charges \$32.00 for a yearly subscription and has 500 subscribers,²² so the budget

The project's success with persuading law professors to pledge to publish only in journals that follow open access publishing principles is even more modest. So far, only six law professors have agreed to pledge. *See* Science Commons, Open Access Law: Authors, http://creativecommons.org/science/literature/oalawauthors.

²² The majority of these subscribers are law libraries. The Model Law Review does not charge institutional subscribers a different price from the price for individual subscribers. Few law journals have adopted differential pricing. *Compare* Harvard Law

¹⁹ Social Science Research Network, Frequently Asked Questions, http://ssrn.com/ update/general/ssrn_faq.html.

²⁰ Berkeley Electronic Press, Quasi-Open Access Policy, http://www.bepress.com/ quasi_openaccess.html.

²¹ See Science Commons, Open Access Law: Adopting Journals, http://creativecommons.org/science/literature/oalawjournals.

The 2005 LexisNexis Directory of Law Reviews includes 680 different law journals published in the United States: 181 general student-edited law reviews, 314 special-focus student edited law reviews, 114 faculty-reviewed journals, 43 commercial or trade law journals, and 28 other law journals. LEXISNEXIS, *supra* note 10. 10.

document reports \$16,000 in subscription revenues. In addition, Model receives royalties from Lexis, Westlaw, and the Copyright Clearance Center, in the aggregate amount of \$8,000. This leaves a deficit of \$16,000, which is covered by support funds in the budget of the Model School of Law.

	Expenses	Revenues
Subscriptions		\$16,000
Printing, etc.	\$40,000	
Royalties		8,000
Law school support		16,000
Total	\$40,000	\$ 40,000

Model Law Review Budget

The budget I describe omits a number of costs. It fails to account for rent, electricity, and other overhead incurred in the maintenance of the law journal offices, or the assistance of clerical staff hired and paid by the Model School of Law. To the extent that the law school offers credit for law review participation, it fails to factor in the tuition costs of an hour of law school credit. The Model Law Review pays none of these costs, so it includes none of them in its budget. More importantly, because the law review itself pays none of the first-copy costs of an issue of the journal, it does not include those costs in its budget either. Because it acquires manuscripts from their authors royalty-free, and pays its editors and production staff no money, it has no budget line for content or editorial expenses.

Review, Ordering Information, http://www.harvardlawreview.org/order.shtml (\$55 individual; \$200 institutional) with Chicago-Kent Law Review, Subscriptions, http://lawreview.kentlaw.edu/

subscriptions webpage.htm (\$35/year); Environmental Law, Subscription and Back Issue Information, http://www.lclark.edu/org/envtl/subscribe.html (\$40/year); Hoftsra Law Review, Subscription Information, http://www.hofstra.edu/Academics/law/lawrev/ law lawrev sub.cfm (\$26/volume for all subscribers); Lewis & Clark Law Review, Subscriptions, http://www.lclark.edu/org/lclr/subscriptions.html (\$40/year); Journal of Law in Society. Subscription Information, http://www.law.wayne.edu/organization/lawjournal/ subscription.htm (\$25/year); Michigan Law Review, Subscribe,

http://students.law.umich.edu/mlr/about_subscribe.htm (\$60/year); Stanford Law Review, Subscriptions and Back Issues, http://www.stanford.edu/group/lawreview/contact/

subscriptions.htm (\$42/year); Wayne Law Review, Subscriptions, http://www.law.wayne.edu/organization/lawreview/subscriptions.htm (\$32/year); Yale Law Journal, Subscriptions, http://www.yalelawjournal.org/subscriptions.asp (\$55/year).

That doesn't mean that legal scholarship is free. Entities other than the Model Law Review in fact pay significant amounts of money to produce the content that the law journal publishes so cheaply.

IV. CALCULATING A CONSTRUCTIVE FIRST-COPY COST

Because the market for law journal articles, notes, and comments clears at zero, there's rarely a need to calculate the first-copy cost of a typical issue of a legal periodical.²³ That shouldn't, though, obscure the fact that the first-copy costs are real and people pay them. The price of legal scholarship is not, however, set in the marketplace for legal periodicals but in the marketplaces for the people who write and edit them. Thus, to arrive at a plausible rough estimate of the first-copy cost of the Model Law Review, we need to make a number of simplifying assumptions. I also intentionally make very conservative estimates, setting the values included in the first-copy cost at the low end of the plausible range and omitting a variety of expenses that in fact figure into the first-copy costs in the real world.²⁴

As I said earlier, the average issue of our fictional journal contains three articles and two notes. The articles cost the journal nothing, but are typically written by law professors, who are paid by the law schools that employ them to produce published legal scholarship. Let's imagine that law professors whose articles land in the pages of the Modern Law Review are paid, on average, \$100,000 per year, and that their institutions spend another \$25,000 per year on their employee benefits.²⁵ Let's further assume that these professors publish, on average, two articles (or the equivalent in law journal pages) per year, and that they are expected by their academic institutions to devote 40% of their working time to teaching, 40% to scholarship, and 20% to service. Ignoring the cost of overhead, research assistance, books, and photocopies, we can set the cost of each law review article at \$25,000. An average issue of the Modern Law Review with three articles would then reflect \$75,000 in article writing costs; the articles in a four-issue volume would cost \$300,000.

Next, we need to account for the student-authored notes and comments. There it is more difficult to come up with an average price, but one plausible measure is the cost of a credit hour at the Model School of Law. Many law schools give students a single academic credit for a published note or comment. Others refuse to give credit, but would allow a student who was not publishing

²³ See, e.g., Marjolein Bot, Johan Burgemeester & Hans Roes, *The Cost of Publishing an Electronic Journal: A General Model and a Case Study*, D-LIB MAG., Nov. 1998, http://www.dlib.org/dlib/november98/11roes.html ("The costs of authors, editors and referees are ignored, since they do not ask for a financial reward...").

²⁴ I omit, for example, tuition subsidies as well as overhead and research expenses paid separately from (and in addition to) salaries.

²⁵ See JOHN W. CURTIS ET AL., AM. ASS'N OF UNIV. PROFESSORS, INEQUITIES PERSIST FOR WOMEN AND NON-TENURE-TRACK FACULTY: THE ANNUAL REPORT ON THE ECONOMIC STATUS OF THE PROFESSION 2004–05 40, available at http://www.aaup.org/AAUP/About/

committees/committee+repts/compensation/ecstatreport2004-05/.

a note or comment to earn academic credit in an independent study for an equivalent paper. The fees for a single hour of academic credit vary, but at the Model School of Law, which charges \$22,500 annual tuition, a single credit hour would cost \$750. Each issue of the Model Law Review, thus, reflects \$1,500 in note writing costs. We can peg the cost of the notes and comments in each volume at \$6,000.

So far, the constructive first-copy cost of a year's worth of the Model Law Review is \$306,000. We have not yet, however, accounted for editing and production. Both are performed by law students who usually receive no direct payment of money (but earn a credential for their service that they can redeem later in the employment market). There's no easy proxy to account for the value of their editing and production work. In the absence of a better rubric, I suggest we measure the amount of money those students would have earned if they had spent those hours doing a work/study job. For that purpose, we can value the hours with reference to the minimum wage. I canvassed law journals to get a rough estimate of the time student editors spend in selection, editing, cite checking and other production work, and received widely varying estimates.²⁶ After talking with different editors, I concluded that it was plausible to assume for the purposes of this model that each of the 20 published pieces in a single volume of the Model Law Review reflects an average of fifteen hours of time spent in selecting among different submissions, ten hours of actual editing of the manuscript and twenty-five hours of cite checking, proofreading, font changing and other production-related tasks. The federal minimum wage (and the minimum wage of twenty-five states) is currently $5.15 \text{ per hour.}^{27}$ 5.15 x 50 hours x (12 articles + 8 notes) = 5,150, bringing the annual first-copy cost of the Model Law Review to \$311,150.

	Expenses	
Articles	\$300,000	
Notes	6,000	
Editing, etc.	5,150	
Total	\$311,150	

²⁶ Law journal editors' estimates of the hours spent on all tasks for a typical article ranged from a low of twenty-seven student hours per article to a high of 400 hours per article. I picked a plausible estimate in the middle. If the lowest number is more typical, we could estimate editing costs at 2,781, and an annual first-copy cost at 308,781; if the highest number is more nearly accurate, the estimated editing costs would be 41,200 and the estimated annual first-copy cost would be 347,200.

 $^{^{27}}$ U.S. Department of Labor, Minimum Wage Laws in the States (April 3, 2006), http://www.dol.gov/esa/minwage/america.htm. Eighteen states have a higher minimum wage than the U.S., and six have one that is lower. The highest minimum wage as of April 3, 2006, was the state of Washington's at \$7.63. A Washington minimum wage would increase the student editing and production cost to \$381.50 per article, or \$7,630 per volume.

Constructive First-Copy Cost

If this imputed first-copy cost is plugged into the Model Law Review's annual budget, then we can see the relationship between the official budget items and the externalized first-copy costs that the budget document omits.

	Expenses	Revenues
Subscriptions		\$ 16,000
Printing, etc.	\$ 40,000	
Royalties		8,000
Articles	300,000	
Notes	6,000	
Editing, etc.	5,150	
Law school support		16,000
Total	\$351,150	\$ 40,000

Constructive Annual Budget

The most obvious feature of this constructive first-copy cost is that it completely dwarfs the Model Law Review's official budget of \$40,000. A second notable feature is the number of different entities that make substantial contributions to the subsidy of the journal. Subscribers and readers pay \$16,000. The Model School of Law and its students contribute a total of \$27,150 plus overhead. Twelve different universities throw in \$25,000 each. Finally, none of these contributors appears to be motivated in any way by the incentives provided by the copyright system.

A. First-Copy Cost Subsidy Dwarfs the Official Budget

The single most expensive item in the constructive first-copy cost I've presented is that of the authors' salaries I've attributed to the articles published in the journal. When discussing scholarly publishing, it is conventional to exclude authors' indirect compensation (as distinguished from publisher-paid royalties) from the first-copy cost, since the scholarly journal doesn't pay it.²⁸ By including it as an element of the first-copy cost, am I putting my thumb on the scales? If we're considering only a journal's operating costs, it makes sense to ignore costs the journal doesn't pay. If, however, we're trying to assess the virtues and vices of different models of scholarly communication, we need to include real costs paid by entities other than the journal to evaluate which models make sense. The legal academy subsidizes the cost of generating and publishing legal scholarship to a degree that makes the expense of printing and

²⁸ See, e.g., Theodore C. Bergstrom, *Free Labor for Costly Journals?*, J. ECON. PERSP., Summer 2001, at 183, 187; Bot et al., *supra* note 23.

mailing law journals insignificant. In order to make sensible policy decisions about the business models appropriate for scholarly legal publishing, we need to consider the economics of the entire enterprise and not merely the items reflected on a typical law journal's annual budget.

B. The Source of the Subsidy Is Spread Out Across the Legal Academy

What is it that the Model School of Law and the other twelve universities whose expenditures fund the Model Law Review in any given year think they are buying with their money? They're investing in the creation and publication of law review articles. They do this because they view the production of legal scholarship as within their core mission, as important to the legal academy as their function of educating lawyers. Once that scholarship is generated, moreover, its investors get the most bang for their buck if it is disseminated, read, and cited as widely as possible. Although legal scholarship, like other scholarship, can find itself incorporated into practical and sometimes even profit-generating activities,²⁹ those activities will pay no royalties or fees for the use of published legal research. There's no financial or reputation benefit to the universities involved from restricting access to any of the work.

C. The Copyright System Plays No Role

Indeed, it is not at all clear who owns the copyrights in the articles, notes, and comments that the Model Law Review publishes. Like many law journals, the Model Law Review has a form publishing agreement in which it asks authors to assign copyrights in accepted manuscripts to the review. If authors object to the request, the journal instead requests a nonexclusive license to print, reprint, publish, distribute, and authorize the electronic reproduction of the piece in Lexis, Westlaw, and other services.³⁰ Although the Review has contracts with Lexis, Westlaw, and Copyright Clearance Center authorizing them to engage in reproduction of the material it publishes, the contracts don't speak to copyright ownership. They require only that the Review have

²⁹ Sometimes, for example, a theory or argument initially propounded in a law review article or Note will find its way into a litigator's brief. *See, e.g.,* Lucinda Finley, Note, *Article III Limits on Article I Courts: The Constitutionality of the Bankruptcy Court and the 1979 Magistrate Act,* 80 COLUM. L. REV. 560 (1980); N. Pipeline Constr. Co. v. Marathon Pipe Line Co., 458 U.S. 50, 59 (1982) (relying on Finley note); Samuel D. Warren & Louis D. Brandeis, *The Right to Privacy,* 4 HARV. L. REV. 193 (1890); Pavesich v. New Eng. Life Ins. Co., 50 S.E. 68, 74 (Ga. 1905) (relying on the Warren & Brandeis article).

³⁰ For a different approach, see University of Chicago Law School, The Supreme Court Review, http://www.law.uchicago.edu/supremecourt/supremecourt.html. The Supreme Court Review has devised its own intuitively appealing but legally incoherent copyright policy:

Copyright: The Review is published by The University of Chicago Press, which owns the legal copyright for the entire contents of each volume; authors are understood to retain an equitable copyright in their work, and indeed articles frequently form the basis of more extended publications at a later date.

copyright owners' permission to grant photocopy or electronic licenses in the material that it publishes.³¹ In no case does the Model Law Review investigate whether the copyright in a submission is owned by the person who wrote it or is instead claimed by the university who employs her under the work made for hire doctrine.³² The uncertainty over whether scholarly articles are subject to the copyright work made for hire doctrine under the 1976 Copyright Act is longstanding.³³ It remains unresolved chiefly because so little turns on the answer.

V. IMPLICATIONS FOR OPEN ACCESS LAW PUBLISHING

The research ecosystem outlined above seems like one for which open access publishing would be ideal. So long as contributors were assured of receiving attribution for their work, they would all benefit from open access publication. None of the contributors to an issue of the Model Law Review would be harmed or inconvenienced if the contents of the issue were freely available to as many people and in as many forms as possible. That raises one question that inspired this conference: if open access publishing is ideal for legal scholarship, why don't we see more of it?

The primary reason, I think, for the legal academy's sloth in adopting open access publishing is the absence of any demand-side pressure to explore lower cost alternatives to the traditional subscription model. In contrast to the world of nonlegal scholarly publishing, the cost to fill library shelves with legal scholarship is modest.³⁴ Law journal subscription prices are low, and have risen at less than the rate of inflation for a generation. Meanwhile, law academics have long had "feels free" access to electronic versions of published law review articles through Lexis and Westlaw, which make their databases available to law schools at a bulk discount rate. The impetus for open access legal publishing has been entirely a matter of supply-side pressure. Legal scholars who wish their work to be read by scholars outside the legal academy cannot count on reaching them through Westlaw and Lexis. Scholars and the law schools that employ them have taken the lead in self-archiving in order to

³¹ See West Group License Agreement (on file with author); Mead Data Central License Agreement (on file with author).

³² See, e.g., Hays v. Sony Corp. of Am., 847 F.2d 412, 415 (7th Cir. 1988); Vanderhurst v. Colo. Mountain Coll. Dist., 16 F. Supp. 2d 1297, 1307 (D. Colo. 1998); Town of Clarkstown v. Reeder, 566 F. Supp. 137, 142 (S.D.N.Y. 1983). See also Kenneth D. Crews & David Wong, Ownership and Rights of Use of Works Created at the University: A Survey of American University Copyright Policies (Jan. 30, 2004), http://www.surf.nl/copyright/files/Policy_analysis_ownership_zwollelII.pdf (summarizing different university copyright policies).

³³ See Rochelle Cooper Dreyfuss, The Creative Employee and the Copyright Act of

^{1976, 54} U. CHI. L. REV. 590, 591–92 (1987); Todd F. Simon, Faculty Writings: Are They "Works Made for Hire" Under the 1976 Copyright Act?, 9 J.C. & U.L. 485, 485 (1982).

³⁴ See, e.g., Paul George, et al., *The Future Gate to Scholarly Legal Information*, AALL SPECTRUM, Apr. 2005, at 1, *available at* http://www.aallnet.org/products/ pub_sp0504/pub_sp0504_MB.pdf.

achieve the benefits of enhanced access to their work. They have deposited their manuscripts in open access depositories like the SSRN Legal Scholarship Network eLibrary,³⁵ and BE Press Legal Repository.³⁶ Law schools have agreed to pay significant amounts of money to SSRN and BE Press to publicize the availability of their faculties'' drafts. SSRN has promoted its eLibrary by ranking law schools and individual faculty authors by the number of times their papers have been downloaded.³⁷

Law journals have been less eager to jump on the open access bandwagon because of real and perceived threats open access poses to their way of doing business. In the perceived threat column, I'd put concern over the impact on Westlaw, Lexis, and Copyright Clearance Center royalties. There's no reason to expect that adopting an open access publication model would diminish those funds significantly.³⁸ Westlaw and Lexis in particular have perfected the art of collecting large sums of money for access to material that is already in the public domain, by making it available subject to useful search functionality. Most researchers encountering Professor Lauren Example's latest article, Roots and Rights, on Westlaw are not the people who already know that it was published in volume sixty-four of the Model Law Review at page 513, but instead folks who encountered it while searching for law review articles that discussed the civil rights afforded to rutabagas and turnips. The fact that the article also appears somewhere else in an open access online archive is unlikely to have any impact on the number of viewers who find the piece in Lexis or Westlaw. A real threat, though, is the potential disaggregation of law journal issues that follows from open access publishing relying principally on author self-archiving. If I do read Professor Example's article by downloading it from the BE Repository, I may never know that Model Law Review published it as part of its symposium on vegetable law, and may never look at the Model law student note on the jurisprudence of summer and winter squash.

In response, a small number of law journals have recently begun making archives of their content available online.³⁹ That experiment has inspired some

³⁸ Hunter, *supra* note 12, at 632.

³⁵ See Social Science Research Network, *supra* note 18.

³⁶ Berkeley Electronic Press, Bepress Legal Repository, http://law.bepress.com/ repository/.

³⁷ See Social Science Research Network, SSRN Top Law Schools (Beta), http://hq.ssrn.com/rankings/Ranking_Display.cfm?TMY_gID=2&TRN_gID=1; SSRN Top 1500 Law Authors (Beta), http://hq.ssrn.com/tournaments/ tournament_display.cfm?TRN_gID=6&TMY_gID=5&order=ASC.

³⁹ See, Columbia e.g., Law Review. The Review Archive, http://www.columbialawreview.org/archives/; Harvard Law Review, Recent Issues, http://www.harvardlawreview.org/recentissues.shtml; Michigan Law Review, Current Issue, http://students.law.umich.edu/mlr/index-mlr.htm; NYU School of Law, Law Review Issues Archive http://www.law.nyu.edu/journals/lawreview/issues/index.html; University of Chicago Law Review, Archived Issues, http://lawreview.uchicago.edu/issues/archive/ index.html; Yale Law Journal, Archive, http://www.yalelawjournal.org/archive.asp. The terms of online access differ. All five law journals make their contents available on the web at no charge. Harvard, Columbia, and the University of Chicago reserve all rights

of them to try out other formats for online publishing, as a supplement and enhancement to the traditional fare they've published for many years.⁴⁰ That development has the potential to transform legal scholarship.

VI. IMPLICATIONS FOR NONLEGAL OPEN ACCESS PUBLISHING

Can we generalize from these insights to some conclusions that apply beyond legal scholarship? General scholarly publishing introduces some nontrivial complications. First, in the absence of a pool of students to do the work of editing and typesetting, scholarly journals need to employ professional publishing assistance. This requires them either to set the subscription price for their journals at a high enough rate to recoup editing expenses as well as printing expenses, or increase the direct subsidy to the journals. Many nonlegal journals, moreover, are not university-affiliated, so a source for non-subscription subsidy may be difficult to identify. Nonlegal scholarly publishing typically employs a peer review system for editorial selection. Peer reviewers are usually volunteers, whose compensation comes from the universities that employ them, but some additional cost to the journal comes from administering the peer review process. Some learned societies, rather than subsidizing their research journals, rely on subscription revenues to subsidize activities other than scholarship. For these reasons, and because of the presence of commercial journal publishers, subscription prices to many scholarly periodicals have risen astronomically.

For all of these differences, though, essential things are similar. The largest category of expense will again be the salaries and stipends of the individuals who are performing the scholarly research,⁴¹ although the disparity between the cost of generating scholarship and the cost of disseminating it may be less stark. If commercial publishers of scholarly journals were required to reimburse the salary costs of the authors of articles published by the journals, the publishers would be unable to persuade subscribers to pay the high prices

under copyright. See Columbia Law Review, Permission Requests, http://www.columbialawreview.org/information/permissions.cfm; Harvard Law Review, Copyright Permission, http://www.harvardlawreview.org/copyright.shtml; University of Chicago Law Review, Permissions, http://lawreview.uchicago.edu/permissions. Yale and NYU grant permission for free educational copying. NYU School of Law, Law Review Copyright Policy, http://www.law.nyu.edu/journals/lawreview/copyright.html; Yale Law Journal, About the Journal, http://www.yalelawjournal.org/about.asp.

⁴⁰ See, e.g., Duke Law & Technology Review. iBlawg. http://www.law.duke.edu/journals/dltr/iblawg/; Michigan Law Review, First Impressions, http://students.law.umich.edu/mlr/first_impressions.htm; Harvard Law Review Forum. About the Forum, http://www.harvardlawreview.org/forum/aboutforum.shtml; Yale Law Journal, The Pocket Part, http://www.thepocketpart.org/.

⁴¹ Differences among disciplines will change the numbers: in many non-law disciplines, coauthorship is common, articles are shorter, and scholars are expected to produce a larger number of them. The first two differences will tend to increase article costs relative to legal scholarship, and the third will tend to decrease them.

necessary to cover their costs. Thus, as in law, we have a system for disseminating scholarship that relies heavily on subsidies from the employers of individuals engaged in publishable research. Indeed, universities and other centers of research are paying two distinct types of subsidies—once in salaries, benefits and other costs for their researchers, and again for the high "institutional" subscription price for scholarly journals. In nonlegal research, the only entities motivated by copyright are the publishers themselves, who may have come to rely on controlling access to research results in order to fund their publishing ventures. Moreover, because publishers have found it expedient to raise prices repeatedly, the potential of open access publishing to serve as a replacement for conventional publishing seems far more compelling than it does in law, where subscriptions remain cheap.

My analysis of the externalized costs of scholarly publishing suggests that universities and other research centers might explore the option of demanding value-beyond the satisfaction of having spent one's funds advancing one's core mission-in return for their contribution to the publication of research. More generally, it may be useful to stop thinking of academic spending on research as a library budget plus a math department budget plus a sociology budget. Perhaps, rather than assigning copyrights to outsiders to bribe them to publish research, the academy might give some consideration to bringing more of these scholarly functions in-house, or to exploring more explicit models of collaboration among academic institutions. Universities and other research centers are already paying the individuals to perform the research, peer-review the submissions, and edit the journals in which they appear. They are paying again to allow their researchers to read the work that they've done. If they looked at the entire research ecosystem that they're funding, it is possible they would decide that all of the pennies they are spending are being spent well. Alternatively, they might conclude that establishing a small printing operation in the library department to generate hard copies of downloaded periodicals, encouraging their faculty to prefer editing and peer review requests from journals that permit self-archiving, and shifting their subscriptions budget to favor open access journals, would buy more research for comparable expenditures.

VII. CONCLUSION

Instead of asking whether open access journals can act like conventional scholarly journals without relying on the subscription revenues made possible by access restrictions, it's more useful to think about whether they can engender a less dysfunctional environment for scholarly publishing than the one we currently enjoy. This is true for legal scholarship and seems equally true for nonlegal scholarship. In both cases, universities and other research centers expend massive amounts of money to generate and support research, scholarship and scholarly publications. Those expenditures vastly outweigh the modest operating budgets of even the most expensive scholarly journals. Thus, any analysis predicated on the economics of scholarly publishing should focus on the economics of the scholarly enterprise rather than the budgets of the journals that propagate its results. Where open access publishing can enhance

the dissemination and impact of scholarly research, it seems like a good bargain for all concerned, for reasons that are primarily not financial. Because publication costs are so small a slice of overall research expenditures, open access publishing seems unlikely to have significant impact on the cost of generating and disseminating research beyond requiring research centers to shift some of their expenditures from column A to column B. Nor do we have enough experience with open access publishing to conclude with any confidence that it will reduce the overall costs of consuming scholarly research. It may. It may instead simply spread the costs more thinly, by disaggregating scholarly compilations and imposing the print costs on multiple individual computer printouts rather than bound volumes. But making research more accessible, even if it generates no significant cost savings, seems likely to improve the quality of scholarly research across the board, and seems worth doing on those grounds alone.