Review of *The Access Principle* by John Willinsky

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I have an ingenious idea for a company. My company will be in the business of selling computer games. But, unlike other computer game companies, mine will never have to hire a single programmer, game designer, or graphic artist. Instead I'll simply find people who know how to make games, and ask them to donate their games to me. Naturally, anyone generous enough to donate a game will immediately relinquish all further rights to it. From then on, I alone will be the copyright-holder, distributor, and collector of royalties. This is not to say, however, that I'll provide no "value-added." My company will be the one that packages the games in 25-cent cardboard boxes, then resells the boxes for up to \$300 apiece.

But why would developers donate their games to me? Because they'll need my seal of approval. I'll convince developers that, if a game isn't distributed by my company, then the game doesn't "count"—indeed, barely even exists—and all their labor on it has been in vain.

Admittedly, for the scheme to work, my seal of approval will have to *mean* something. So before putting it on a game, I'll first send the game out to a team of experts who will test it, debug it, and recommend changes. But will I pay the experts for that service? Not at all: as the final cherry atop my chutzpah sundae, I'll tell the experts that it's their professional duty to evaluate, test, and debug my games for free!

On reflection, perhaps no game developer would be gullible enough to fall for my scheme. I need a community that has a higher tolerance for the ridiculous—a community that, even after my operation is unmasked, will study it and hold meetings, but not "rush to judgment" by dissociating itself from me. But who on Earth could possibly be so paralyzed by indecision, so averse to change, so immune to common sense?

I've got it: academics!

Everything I described with computer games would work even better with academic papers. For then it wouldn't be the academics themselves who were footing the bill, but their universities' libraries. So, under the academics' noses, I could gradually gain control of much of the world's scientific output—a unique and irreplaceable resource, worth almost any price I'd care to name.

Alas, my idea has already been taken, by Elsevier and the other publishing conglomerates. At the risk of stating the obvious, we in the academic community create the ideas in our papers. We write the papers. We typeset the papers. We review the papers. We proofread the papers. We accept or reject the papers. We electronically archive and distribute the papers. If commercial publishers once played an essential role in this process, today their role is mostly to own the copyrights and to collect money from the universities.

In the past few years, there have been many detailed analyses of the rise in journal prices over time, the cost per page of one journal versus another, the tactics of the publishing companies, and so on. A website by John Baez [1] and an open letter by Donald Knuth [3] provide excellent starting points for those who are interested. In my view, what's missing at this point is mostly anger—a justified response to being asked to donate our time, not to Amnesty International or the Sierra Club, but to the likes of Kluwer and Elsevier. One would think such a request would anger everyone: conservatives and libertarians because of the unpaid labor, liberals because of the beneficiaries of that labor.

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¹Most journals do offer a proofreading service; some of these have achieved legendary status for introducing more errors than they fix.

But scientists, despite (or because of) their professional virtues—understatement, self-criticism, respect for academic tradition—seem prone to a peculiar anger deficiency. Not only do many of them continue to work *pro bono* for outrageously-priced journals, some of them even criticize colleagues who don't! Lance Fortnow recently defended Elsevier's *Information and Computation*, a subscription to which costs a jaw-dropping \$3000 per year, as follows:

We all have a responsibility to do our fair share of refereeing and it takes no more effort to referee a paper for I&C than for any other journal. If you truly dislike a certain publisher then don't submit your papers to their journals. But to take a symbolic stand by not refereeing papers only hurts the authors and our community. [2]

In my view, once we've mustered a level of anger commensurate with what's happening, we can *then* debate what to do next, which journals are overprized and which aren't, what qualifies as "open access," and so on. But the first step is for a critical mass of us to acknowledge that we are being had.

This article is supposed to be a review of a book called *The Access Principle* by John Willinsky (MIT Press, 2006). So let me now turn to reviewing it. *The Access Principle* is a paradox: on the one hand, its stated goal is to make the case for open access to research and scholarship. Its thesis is that "a commitment to the value and quality of research carries with it a responsibility to extend the circulation of such work as far as possible and ideally to all who are interested in it and all who might profit by it" (p. xii). On the other hand, the book is printed in hardcover and sells for \$34.95. Recognizing what he calls the "all-too-obvious irony," Willinsky explains that while much of the book's content is available for free online, he's chosen to collect it in book form, first, to reach a wider audience; second, because of his "admitted attachment to the book's becoming look and familiar feel"; and third, because "the book remains the medium that best serves the development of a wide-ranging and thoroughgoing treatment of an issue in a single sustained piece of writing" (p. xiv-xv). Fair enough—in any case, my review copy was free.

For me, the most important idea in the *The Access Principle* is that scholars have a duty to make their work available, not only to their colleagues, but ideally to anyone who wants it. As Willinsky writes:

Open access holds the promise of moving knowledge from the closed cloisters of privileged, well-endowed university campuses to institutions worldwide. Such an approach also opens a new world of learning to those outside the academic realm, to dedicated professionals and interested amateurs, to concerned journalists and policymakers. In this way, an open access approach to scholarly publishing is not simply a side issue, a matter of business plans and delivery systems, in the pursuit of truth. (p. 33)

Today, many journal articles are online, but are accessible only from schools, companies, and research centers that have bought exorbitantly-priced "institutional subscriptions" to services like Elsevier's ScienceDirect. I've always been amazed by the arrogance of the view that this represents an acceptable solution to the problem of circulating research. Even if the subscriptions cost a reasonable amount (they don't), and even if the researchers who were "entitled" to them could easily access them away from their workplaces (they can't), who are we to say that a precocious high-school student, or a struggling researcher in Belarus or Ghana, has no legitimate use for our work? Or if our work is intended only for a small circle of colleagues, then why even bother writing it up? Why invest months of boring, painstaking effort to express, in elegant LaTeX form, what would probably take fifteen minutes to explain to a colleague on a blackboard? How serious are we about scholarship being an eternal conversation that transcends time and space?

The first time I saw a college library, I was eleven years old and attending a summer program at Bucks County Community College. If you remember the scene from Disney's "Beauty and the Beast" where the provincial Belle sees the endless shelves of books in the Beast's library, you'll know roughly how I felt. Even though the Bucks library was tiny by research standards, nothing had prepared me for it—certainly not my school library or the local public one. I never knew that so many words had been written about such

esoteric topics. When I picked up a recreational math journal, and found an article about generalizing the Fibonacci sequence to "Tribonacci" and higher-order sequences, I felt like I was entering a secret world.

Granted, it might not be feasible for every elementary school on Earth to stock journals containing articles about the Tribonacci sequence. The point is that today, in the Internet age, they shouldn't have to. And yet, even as I write, much of the serious content on the Internet remains sequestered behind pointless, artificial walls—walls that serve the interests of neither the readers nor the authors, but only of the wall-builders themselves. If I have a medical problem, why can't I download the full text of clinical studies dealing with that problem? Why do so many researchers still not post their papers on their web pages—or if they do, then omit their early papers? When will we in academia get our act together enough to make the world's scholarly output readable, for free, by anyone with a web browser?

Since this is a book review, at this point I have to level with you. Apart from an excellent final chapter—which describes the founding of the *Transactions of the Royal Society of London*, the world's first scientific journal—*The Access Principle* is an almost unreadably boring book. Rather than try to explain why it's boring, I'll simply ask you to read the following two sentences.

The current state of serial indexing presents a particularly good reason for research libraries and professional associations, as well as individual researchers and journal editors, to work together on developing compatible distributed systems that greatly improve the comprehensiveness of indexing and promote universal access to research by placing at least this initial, discovery phase of scholarship squarely within the public sector of the knowledge economy. Comprehensive indexing may be an area in which commercial and open access interests can coexist peacefully, complement one another, and even thrive and serve one another, as the future of scholarly publishing sorts itself out within this new digital medium. (p. 187)

Now imagine 243 pages of prose like the above, and you'll understand why *The Access Principle* isn't going to fly off the shelves, despite the timeliness and importance of its message. And yet, even if he seems physically unable to write one subordinate clause where five would do, I'm grateful to Willinsky all the same—for in *The Access Principle*, he's given the open-access movement its first attempt at an intellectual foundation. Now it's up to the rest of us to supply the anger.

References

- [1] J. Baez. What We Can Do About Science Journals, 2006. http://math.ucr.edu/home/baez/journals.html.
- [2] L. Fortnow. A Referee's Boycott, weblog entry, February 16, 2006. http://weblog.fortnow.com/2006/02/referees-boycott.html.
- [3] D. Knuth. Open Letter to the Journal of Algorithms Editorial Board, October 25, 2003. http://www-cs-faculty.stanford.edu/~knuth/joalet.pdf.