"Drowning In Information and Starving For Knowledge": 21st Century Scholarly Publishing¹

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Abstract

This essay draws on scholarly and public-policy literature, along with personal experience, to examine academic publishing in the global North, especially the United States. It does so in the hope of interesting academic readers, writers, presses, and distributors. The piece is idiosyncratic in its blend of impressionistic experience with, let us say, book learning.

Introduction

The words "intellectual property" have a fairly predictable effect. Use them in conversation, and nine out of 10 people immediately fall into a deep sleep, only to wake eight hours later demanding coffee and Weetabix. The 10th person, who is likely to have some engagement with the creative industries, will immediately launch into a long, articulate, autobiographical complaint. —John Lanchester (2007)

British university publishing commenced with Cambridge University Press in 1584. In 1665, the Royal Society started *Philosophical Transactions*, the first academic journal. Three years later, Oxford University Press opened operations. U.S. university publishing began earlier, in 1640 at Harvard, but only lasted 50 years, returning just a century ago. The longest-standing continuing academic publishing house in the U.S. is Johns Hopkins, which emerged in 1878. The next 40 years saw most of today's major U.S. scholarly presses established. They were driven by the realization that the for-profit book market was operating well financially, but was not furthering the distribution of new knowledge (Electronic Publishing Services Ltd., 2006; Givler, 2002).

Fifty years ago, the American Council of Learned Societies (ALCS), the peak body representing U.S. professional associations outside the sciences and medicine, paid for research to examine any major obstacles to meritorious monographs being published. It determined that 'reasonably rapid publication at no expense to the author' was pretty well guaranteed across the humanities and social sciences (quoted in Alonso *et al.* 2003: 1). Of course it was referring to Yanquis writing in English, and the conjuncture of the time was the height of Cold-War subvention of (paradoxically) disinterested research. Sputnik ushered in a massive polar competition that saw monumental expansion of U.S. universities: Noam Chomsky's work was underwritten by the Pentagon through the U.S. military's Joint Services Electronics Programs; the

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Federal Government boosted college enrollment via the Servicemembers' Readjustment Act of 1944 (the GI Bill), and research through the National Defense Education Act; and the growth of not-for-profit publishers matched the purchasing power of libraries. In those days there were about 60 university presses in the U.S. Now there are close to 100, and they publish twice as many books. Expansion has been extraordinary. For instance, in 1870, just 840 papers were published on the topic of mathematics. A hundred and twenty-five years later, the annual number was 50,000. Thousands of academic papers are penned each day, with scientific output doubling every five years, while patent applications filed in the major centers-the U.S., Japan, and Western Europe-increased by 40% between 1992 and 2002, to 850,000 a year. Scholarly literature overall increases by 3% annually, filling 20 -25,000 peer-reviewed journals. It's been estimated that the U.S. National Institutes of Health (NIH) support approximately 65,000 published papers a year. That involves a lot of book learning: the average number of articles that scientists read each year was 216 in 2003, up from 150 in 1977. It also involves a lot of money: in 2004, worldwide sales of English-language science, technical, and medical serials were conservatively estimated at UK£5 billion (Dewatripont et al. 2006: 59; Branin and Case 1998: 476-77; Organisation for Economic Co-operation and Development, 2004; Electronic Publishing Services Ltd., 2006; International Association of Scientific, Technical, and Medical Publishers, 2007). Two decades ago, a former director of Yale's library system put it this way: 'we're drowning in information and starving for knowledge' (quoted in Branin and Case 1998: 476). So why and in what ways has the situation deteriorated?

Although U.S. university presses grew in the 20th century, it was an uneven development. Between 1920 and 1970, about one new U.S. college press started each year, and two a year between 1970 and 1974. But many closed, and just five opened, from 1975 to 2000 because of the cost of the space race, the American War in Vietnam, and the oil crisis, which along with the association of universities with radical politics saw funding tighten from 1970. And when the Cold War ended, so did many remaining funding sources. In 1988, 10.4% of net revenue to university presses came from their parent institutions. A decade on, that figure had fallen to 6.3% (Givler, 2002). During the halcyon days, U.S. university presses sold most of their books to libraries. Nowadays, 50% of sales are retail, online, and through mega stores, and 25% are textbooks. Libraries account for about 20% of revenues. Globally, the number of books produced annually increased 45% between 1980 and 1990; the same period saw a net decline in their purchase by libraries. Libraries are increasingly complaining that the corporatization of scientific and medical knowledge, itself of course founded on public subvention through a massive program of cross-subsidization, has sent subscription costs skyrocketing, with a negative effect on budgets for much cheaper but less prestigious areas-come on down, humanities and social sciences. At the same time, we have seen libraries lose their share of overall expenditure on higher education with the end of the Cold War. In the U.S., it stood at 2.9% at the end of the 1960s, rising to 3.5% in a decade. By the end of the 1980s, it had diminished to 3.1%. In the decade from 1986-96, the largest research libraries in North America saw monograph purchases drop by 21% and journal subscriptions by 7%, as the latter rose in price by 147%. The balance is shifting towards journals all the time: in 1986, these institutions bought over 32,000 books and 15,000 journals; in 2005, it was 30,000 books and 22,000 journals. Books went up in price over those two decades by 81%, journals by 302%. Libraries began raising flags about this a quarter of a century ago, via a Board of National Enquiry, and continue to make the point. Sales are down, prices are down, costs are up, subvention is down. Print runs of books average in the low hundreds, even given cost savings permitted by digital systems (American Council of Learned

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Societies Commission on Cyberinfrastructure for the Humanities and Social Sciences 2006: 24; Givler, 2002; Branin and Case 1998: 476; Alonso *et al.* 2003: 8; Dewatripont *et al.* 2006: 23; Kyrillidou and Young 2006: 10-11; Branin and Case 1998: 476, 478). It reminds one of the Democratic Party's successful *mantra* in the 1992 elections—everything that should be up is down, and everything that should be down is up.

This essay draws on scholarly and public-policy literature, along with personal experiences, to examine academic publishing in the global North, especially within the Research-One segment of United States higher education.² It does so in the hope of interesting academic readers, writers, presses, and distributors. The piece is idiosyncratic in its blend of impressionistic experience with, let us say, book learning.³

I miss the Cold War. Just kidding. But the world has really changed since then, and we need to understand why if we are to sustain and invent critical humanities and social-science publishing. To do so, we must work with some political-economic realities. The most important of these is that we don't matter. The humanities and social sciences do not play a significant role in the wider political economy of publishing. At all. The scene is set elsewhere, in places we must understand if we are to work effectively. Publishing turnover in science and medicine is estimated at between \$US7 and 11 billion a year globally. Corporate opportunism and greed saw the price of journals grow by between 200 and 300% beyond the rate of inflation between 1975 and 1995. Since that time, the development of digital technologies has seen for-profit publishers proliferate, as the cost of entering the industry has diminished, and prices have continued to outstrip inflation, although the rate slowed once libraries flexed their bodies to deal with what they term 'the "serials crisis" in scholarly publications,' realizing that science had become a major drain. Even a decade ago, an institutional subscription in the humanities might be under \$100, while in physics it was close to \$US1500, and the rates of increase are treble in the sciences. Today, libraries pay upwards of \$US30,000 for annual subscriptions to many journals; even when they come out fortnightly, that's still a feast. Now at any one time in the United States, 50,000 people are undergraduate English students and 4,000 are undergraduate physics students. The revenue in tuition brought in by the humanities, and the unit cost of research, make the sciences costly endeavors indeed for universities, even if grant income appears so appealing. But schools don't run the numbers that way very often! University administrations have become accustomed to defraying managerial and salary costs through grants from governments and corporations to science and medicine. As a consequence, libraries are under pressure to invest in serials from the sciences and medicine, because they contain the knowledge that enables scholars to get grants and publish their findings (Alonso et al 2003: 31; Branin and Case 1998: 475, 477; Martin 1998: 13;

² That is to say, the top 100 or so doctoral-granting universities, as opposed to the thousands of peripheral schools we have, many of which do excellent work.

³ I've written and edited quite a few books and served on the Boards of over 30 journals and book series, as well as being on the University of California Press editorial committee. I've also edited the journals *Journal of Sport & Social Issues, Social Text, Television & New Media,* and *Social Identities* and the book series *Cultural Politics, Film Guidebooks, Sport and Culture* and *Popular Culture & Everyday Life.* Also, when I go to conferences, publishers are usually the most interesting people in the room. They know I'm not trying to sell them anything, so they tend to be fairly open with me. I think.

Givler, 2002). We're on the wrong side of a political-economic divide. So let's understand that fact and work with it.

Journals

In 1956, writing in the soft-socialist serial the *New Statesman*, CP Snow coined the term "Two Cultures" to understand the two parts of himself: 'by training ... a scientist: by vocation ... a writer' (1987: 1). Snow was the inventor of that fine phrase 'the corridors of power' to describe the work of politics and lobby groups, and he was particularly adept at moving between different formations in just the way that social movements, consultants, bureaucrats, and politicians are. Fearing that 'the whole of western society is increasingly being split into two polar groups' (3), Snow perceived the "Two Cultures" as those who could quote Shakespeare versus those who could quote the laws of thermodynamics (15), i.e. people who were fated to repeat the past versus people who were making the future. He could move from South Kensington to Greenwich Village and encounter the same artistic discourse, with each site 'having about as much communication with M.I.T. as though the scientists spoke nothing but Tibetan' (2). Arts and humanities people strolled through their lives 'as if the natural order didn't exist' (14). But there was the opportunity, in best dialectical style, for the 'clashing point' of these discourses 'to produce creative chances,' despite the fact that 'very little of twentieth-century science has been assimilated into twentieth-century art' because 'literary intellectuals, are natural Luddites' (16, 22).

Snow's provocation drew a banally irritated response from FR Leavis, whose publishers feared Snow would sue (1987: 57) after reading that 'Not only is he not a genius, he is intellectually as undistinguished as it is possible to be' (Leavis, 1972). Snow also attracted a sorrowful meditation from JH Plumb, who lamented that 'Quips from Cicero are uncommon in the engineers' lab' and 'Ahab and Jael rarely provide a parable for biologists' (1964: 7). That rather arch but perspicacious social anthropologist Ernest Gellner suggested humanists felt threatened by the idea of adding science 'as one of the crucial 'cultures',' because they narcissistically equated 'humanism with being the *compleat man*' (1964: 63 n.). We lost out in this divide, because science and medicine rule the academic roost.

As for-profit corporations recognized the potential monetary value of science and medical journals (the infamous Robert Maxwell/Ján Ludvík Hoch made his fortune in this field after the War and set the way for others to follow) due to the vast amount of freely available research and the growing demand for outlets, the supply and price of academic journals boomed, starting in the mid-1970s—at the very moment when economic crisis gripped the First World. Just as their economies turned away from manufacturing and agriculture and towards services, the attempts of First-World countries to impose ever more restrictive intellectual-property laws on the global exchange of truth were placing severe limits on how libraries could fulfill their mission of access to knowledge. As measured by income, market share, and citations, the major corporate presses responsible for this situation are Reed Elsevier, John Wiley, Kluwer, Taylor & Francis, and Springer (Branin and Case 1998: 475; Dewatripont *et al.* 2006: 5, 7, 24, 36). The dual tasks of certifying and disseminating knowledge, under the sign of the public good, the desire for inquiry, and scholarly esteem, were added to—perhaps trumped—by the push to profit. For decades, these firms charged high prices for every scientific and medical journal. But they are not so comfortable today, because of anger at the prohibitive cost of their properties, the tendency of scientists to send out material

on the web in advance of publication, and, perhaps most significantly, sections of the U.S. Federal Government arguing that since it pays for vast amounts of this research, the results should be publicly available *instanter et gratis*.

In addition, libraries have become vigorous negotiators. Digital publishing reduced costs, enabling institutional subscribers to negotiate collectively as consortia and buy journals on a bundled, multi-year basis with guarantees about price increases in place of sharp shocks. This is the preferred method for the world's biggest buyer of journals, the University of California, and major national consortia in France and Germany, for example, though some important libraries are now pulling away from this form of contract to buy on strictly individual bases, notably Harvard, Michigan, and Cornell. These oppositional tactics have also enabled a new moralizing discourse about the public good and about state funds effectively paying for research many times over-through college salaries; government grants; and subscriptions. This discourse married the cybertarian utopics of the technological sublime with authors' rights in such 21st-century denunciations of the extremes of private property as the Budapest Open Access Initiative, the Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities, creativecommons.org, the Organisation for Economic Co-operation and Development's Declaration on Access to Research Data from Public Funding, the Bethesda Statement on Open Access Publishing, and the work of the Union for the Public Domain, the Electronic Frontier Foundation, the World Summit on the Information Society, and the Scholarly Publishing & Academic Resources Coalition, inter alia. They generated new policies requiring funded researchers to publish in open-access journals, adopted by the most important scholarly agencies: the Conseil Européen pour la Recherche Nucléaire (birthplace of the web), the Wellcome Trust, Britain's Research Councils, the French Centre National de la Recherche Scientifique, Germany's Max Planck Institutes, the Indian and Chinese Academies of Science, and the NIH. The NIH mandates open-access archiving for all grantees within twelve months of publication, Wellcome within six. Sadly, the U.S. Federal Government's invaluable source, PubSCIENCE, which began in 1999 as a means for citizens seeking research on subjects of vital importance to them and their environments, was closed by the Republican Party in 2002, under instructions from capital in the form of the Software & Information Industry Association, representing Elsevier and its kind (Dewatripont et al. 2006: 6, 8, 49, 52, 17-18, 69; Albanese, 2002).

Against these appeals and statements of principles, the for-profit publishers, operating as the International Association of Scientific, Technical, and Medical Publishers, issued the 2007 *Brussels Declaration on STM [Scientific, Technical and Medical] Publishing*, attacking these manifestoes for proposing measures that 'have largely not been investigated or tested in any evidence-based manner that would pass rigorous peer review.' Emboldened by this high-academic tone, the Association went on to argue that its declaration codified 'princip[les which we believe to be self-evident'; in opposition to accusations of price-gouging and the utopics of open sources, it denounced non-revenue-based publishing for undermining peer review, pointed out the nature of costs incurred throughout publishing (however hidden from view), trumpeted the new access to scholars provided by licensing systems, and asserted the compatibility of new knowledge and new profits. Signatories included the usual suspects mentioned above, plus firms with major cultural-studies play, such as Taylor & Francis and Sage.

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Archiving and Authorship

The anti-mammon manifestoes embody real material action and democracy at work. In 2001, 34,000 scientists from 180 countries signed a petition calling for journal articles to be available gratis online within six months of their hard-copy appearance. The letter was orchestrated by the biomedical founders of the Public Library of Science (PLoS). Two years later, PLoS started as a not-for profit publisher. It has become very powerful indeed, due to the high-level internationalism underpinning it, and millions of dollars in underwriting from liberal foundations. Its journals publish accepted material immediately, all of which are available through PubMedCentral, the NIH's free digital archive (Dewatripont et al. 2006: 63). Authors hold copyright over their papers, which they license, say, to BioMed Central Ltd. as Open Access articlesunder the Creative Commons Attribution License <http://creativecommons.org/licenses/by/2.0>. That permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. Open access occurs in general either through archives or specific journals that are freely available and exempt from most copyright limitations-what PLoS calls 'free availability and unrestricted use.' Open-access journals are free to read-but not to generate. The idea is to cover costs through subsidy from professional associations, payment by authors (normally via an amount set aside in their grant applications), or foundation support. Perhaps half of open-access journals are funded thanks to authors' payments, which may amount to as much as \$US1,500 a page in certain science journals.

One factor weighing against open access is that not-for-profit publishers such as professional associations often rely on selling their knowledge in order to fund bursaries, conferences, grants, and public education, a revenue source that is imperiled by the open-access movement—but major physics journals have increased subscriptions since open access, because they have become even more prominent. The American Society for Cell Biology has made its journals available *gratis* after two months via this means since 2001, and has not entered a fiscal crisis as a consequence, as per its *Position on Public Access to Scientific Literature* ">http://ascb.org/index.cfm?navid=10&id=1968&tcode=nws3>.

By every measure devised, for-profit journals have lesser standing than not-for-profits. The former are created quickly and easily—there are bounties for in-house editors who create or purchase them—whereas journals started by professional associations focus on quality over quantity. Impact studies indicate that the private sector goes for high-priced volume, the public for low-priced excellence (Dewatripont *et al.* 2006: 7-8, 23, 32). I have some experience of scientific open access, having published in a medical journal under such arrangements (Sussman *et al.*, 2006). And it all looks good, no? Our paper can be read free on-line. But the legal small print permitted a for-profit publication to republish the piece as a traditional journal/book without asking the authors, declining to give each of us copies of the result, and charging exorbitantly—it's bundled with four other articles at a cost of \$US150 (Sussman *et al.*, 2007).

Of course, the advances made in digitizing knowledge are extraordinary. Consider the work of the Open Content Alliance; Latin America's Scientific Electronic Library Online; Canada's Érudit; the Japan Science and Technology Information Aggregator, Electronic; the Open Archives Initiative; the University of California's eScholarship Repository; Britain's Project Sherpa; arXiv; RePEc; DSpace; and the Electronic

Publishing Initiative@Columbia. Recently, I was puzzled by the claim in a footnote that Thackeray's Vanity Fair was the fons et origo of the word 'makeover.' Thanks to digital archiving, I could search the book and find this was an error, then get the right answer. But a small fraction of material, archival or otherwise, is available in this way, and much of it subject to copyright. Had I been seeking something from Fitzgerald's The Great Gatsby, I'd have had to scour a hard copy very painstakingly, because of the 1998 Sonny Bono Copyright Extension Act, enacted when Disney realized that its copyright on Mickey Mouse was about to expire. It gave Trent Lott money for his re-election on the very day that the then Republican Congressional leader sponsored extension on copyright of the rodent by another twenty years, and expanded it to cover even orphaned works (those without authors or legatees to claim ownership). The outcome? About 80% of everything published remains in copyright. From the same era, the Digital Millennium Copyright Act jeopardizes fair use, basically turning all digital works into commodity forms and criminalizing their appropriation. It is a disaster for libraries, and furthers the decay of any notion of copyright as a stimulus toward creativity (though at least it clarifies that copyright is a subsidy for corporate indolence) (Dewatripont et al. 2006: 9; American Council of Learned Societies Commission on Cyberinfrastructure for the Humanities and Social Sciences 2006: 11, 19-20; Lanchester, 2007; Bromley, 1999).

The Internet is also costing money. Generally, journals available in hard copy and on-line are charged for twice, with the latter at 90% of the cost of the former (though in many humanities and social-science cases, electronic versions are part of the physical subscription). And 60% of academic journals are now available online, so it *is* the way of the future. In addition, libraries are changing their purchasing patterns, for reasons to do with fashion, users' preferences, and storage. Between 1997 and 2001, European libraries cut their acquisitions of books and journals, even as their overall purchases increased by 28%. The top hundred or so U.S. research libraries dedicated 3.6% of their purchases to electronic resources in 1992-93. In 2004-05, the figure was 37.46%—over a billion U.S. dollars (Electronic Publishing Services Ltd., 2006; Kyrillou and Young 2006: 21; Dewatripont *et al.* 2006: 17).

In addition, there are issues for those of us who seek to publish in a number of different venues. For a long time, I've sought three readerships for my work: scholars, the public, and stakeholders. A recent example concerns sport and sexuality. Based on a book I wrote some years ago (Miller, 2001) I was invited to write an updated version for an Italian fashion show catalogue (Miller, 2006) then for a queer U.S. popular-culture sports site (Miller, 2007a). The latter was in turn republished, and wrongly claimed for copyright, without my agreement, by a general gueer site (subsequently taken down, perhaps because I objected over the copyright issue). In the meantime, I had published a related op-ed piece on the subject in a fairly conservative newspaper (Miller, 2007b). I was pleased that most of these things had happened; I was reaching my intended audiences. Then the article was republished, again without my consent, on a site that illustrated it with hard-core porn. There was no named webmaster, only a comments box. I was "sole author." My only recourse was to contact Google, which provided space for the site-and the only way of doing that was by invoking the Digital Millennium Copyright Act <http://lcWeb.loc.gov/copyright>, legislation that I dislike, given its restrictions on the free exchange of ideas. But that was the road Google required me to take. (Again, the company took the site down, when I had wanted a dialogue with the webmaster). The issues raised for me are varied. On the one hand, I endorse the Roland Barthes/Umberto Eco position that once my words had gone forward into the public sphere, they were no longer mine. I don't endorse the Woody Allen/Coca-Cola line, which insists on global control over their products. In using the Internet, and seeking a variety of audiences, I was opening myself up to appropriation. And when engaging gay-male popular culture sites and sport over the issue of masculinity and sex, porn/erotica is clearly a near neighbor. The dilemmas are manifold, and perhaps should have been manifest to me avant la lettre (or le cliché). But they weren't so obvious, and now I find myself defending authorship (which I have doubts about, other than as prevention of exploitation) and problematizing porn (which I have few doubts about, other than as exploitation). I have consulted with queer scholars and artists and image ethicists, and they have backed my decision. But the travail remains, and it reminds me of the original publication of my 2001 book. When SportSex was deep into production, someone asked me about the cover, and I replied that I'd not vetted one. But it was already available at <Amazon.com>--and it was a picture of a naked black man. Visions of Mapplethorpe rather than Eco went through my head. I complained to the publisher and talked with black theorists and visual-culture critics. Based on those conversations, I suggested to the publisher that we include an insert in the book of a discussion between the photographer, the model, and me about the photograph. Otherwise it would not be mentioned in the book, and nor would the attempt to sell titles by it. But the publisher had bought the image as stock footage. Authorship had been lost in the mists of commerce. So much money had been allocated to the cover, that Temple University Press ultimately offered—and I accepted—digital blanching of the man's image so that he looked white.

Considering authorship leads us to the future of the book in the humanities and social sciences. Many editors within publishing houses argue that the edited collection, often the site of major intellectual breakthroughs in these fields that professional associations would not have supported due to their review processes, is doomed. Because customers now purchase books online, they are thought not to embark on the serendipitous bookshop consumption of the past that frequently led them to buy anthologies. Meanwhile, the monograph, long a sine qua non of tenure in Research-One universities in the U.S., is ceasing to be viable, because libraries have cut their purchasing budgets. Journals frequently subsidize book series, but they too are in jeopardy. First-time authors of books are now being asked to help fund production in a way that did not happen five years ago, when such a thing would have been regarded as a blight on legitimacy, a sign of vanity publishing. On the other hand, more and more companies want books that can be adopted as textbooks-at the lowest-common denominator of mass market U.S. undergraduate education, where pretty pictures and repeated minor rewrites and tear-out exercise pages are crucial in order to build in obsolescence and severely limit second-hand sales. Again, there is a governance issue buttressing the economic one-publishers of humanities and social sciences are perceived as favoring interdisciplinary work that addresses "trendy" subject matter, because it is assumed to recover more of the cost of production than disciplinary-based writing (State Public Interest Research Groups, 2005; Alonso et al. 2003: 46, 7-8, 13-14, 22-23).

To save the monograph, many people within *élite* universities, not just agents of for-profit publishers, are proposing subvention, whereby start-up packages for junior Faculty include potential provision for underwriting book production, and scholars are expected to join relevant professional associations, thereby strengthening not-for-profit publishing programs, thereby underwriting a quality control that is independent of subvention. But critics retort that publication decisions will be made on the basis of securing subsidies, not on merit alone (Alonso *et al.* 2003: 22-23, 27, 29-30).

Several humanities and gualitative social-science areas are having to confront their investment in the monograph, notably the Modern Language Association, since literary criticism and theory doesn't sell, even though students like to enroll in literature courses (the collapse of the market is blamed by many publishers on prolix prose and an overreaching by critics, such that they are self-anointed experts on everything, which is deemed to have shrunk their readership). In addition, the National Endowment for the Humanities, which underwrote the publication of hundreds of books from the mid-1970s, was crippled by the Republican Party from the mid-1990s, so a routine means of supporting humanities books has been eroded. In addition to these financial pressures, many university presses object to the political onus of tenure review being placed on their shoulders. If you get a contract, you get tenure; if you don't, here's the pink slip. There is the idea now of accepting books for publication but not, ahem, publishing themthey remain in limbo except for the few that need to be printed to satisfy tenure and promotion committees! So this is a truly political-economic crisis, interlacing monetary and governmental components (Greenblatt, 2002; Alonso et al. 2003: 1-2, 7, 11-12, 23, 29-30, 50; American Council of Learned Societies Commission on Cyberinfrastructure for the Humanities and Social Sciences 2006: 21). Collaborative work is still frowned upon-or at least not understood-in the humanities, further entrenching our backwardness in committing to the book's aesthetic-monastic model of knowledge. The ACLS Commission on Cyberinfrastructure for the Humanities and Social Science calls for tenure procedures to acknowledge digital scholarship and contributions to a digital infrastructure for the sector as a means of rewarding innovation and discouraging timidity (2006: 34). Bravo.

Author-pays precepts are inevitably controversial, but in one sense they formalize the reality that academics provide labor free or below cost, especially as manuscript reviewers for journals. Neoliberals never saw a disinterested action in their lives, so they are pushing for the author-pays option, since it is allegedly simply working with self-interest. Publishers like transferring labor onto academics, perhaps by cutting down on their own in-house intellectuals—acquisitions editors—who cost them a lot. Proposals are circulating for running several different business models, allocating funds: a) to libraries, as before, to support the system overall by purchasing titles; b) to authors, to underwrite publishing by offering production subsidies; and c) to researchers, to underwrite reading through consumption subsidies (Dewatripont *et al.* 2006: 11). Many journals outside the humanities and social sciences require subvention by authors to defray the cost of paper, illustrations, reprints, and so on (Kaufman-Wills Group, LLC 2005: 1). This is not always popular, but it is not seen as vanity publishing. It will be our future, regardless of our concerns—we are dependent on the labor-process models of the big kids.

Conclusion

At the very moment that Snow and Leavis were testosteroning their way across the drawing room, the two-cultures binary was destabilizing. The 1950s and '60s saw a great literary flowering of science fiction, much of it dystopic—as it no doubt had to be in the wake of the technocratic nightmares of the Holocaust and atomic weaponry. Since that time, relations across the cloisters have changed, with computing technology and its applications to story-telling and art-making well-known to people in every corner of campus—other than the dismal social sciences. Computer scientists/engineers fetishize narrative, and textual critics/artists fetishize code—they often dress the same way, go to the same clubs, share the same passions, and game together. As Thomas Pynchon put it, looking back on Snow's *Two*

Cultures a quarter of a century after its publication, 'all the cats are jumping out of the bag and even beginning to mingle ... the most unreconstructed of Luddites can be charmed into laying down the old sledgehammer and stroking a few keys instead' (1984: 1, 41). So there is one hopeful future—that the grand bifurcation of universities may be undercut.

The second hopeful future comes from the politicization of the big kids. This is coming both from issues to do with environmentalism (where scholarship is compromised by Republican anti-intellectualism) and because corporate publishers can be so awful. In addition to greed, other controversies dog these multinationals. Reed Elsevier, a key journals publisher that houses arguably the world's most important medical journal, The Lancet, has a wing of its operations called Reed Exhibitions, which organizes the world's largest arms fair, Defense Systems and Equipment International, held each year in London. Elsevier is therefore directly involved in marketing and distributing weaponry. Its valued clients include noted abusers of human rights and practitioners of terrorism, militarism and imperialism, from Syria to the United States. Cluster bombs were a speciality until very recently-and they are particular targets for critique within *The Lancet*. So Elsevier has made huge sums from publishing disinterested medical journals that take Hippocrates' precept 'do no harm' as their motto (Epidemics Book I, Section XI) at the same time as showcasing the slogan of torture specialists Security Equipment Corporation, one of its arms exhibitors ('Making grown men cry since 1975!' <http://sabrered.com>). When this grotesquerie was pointed out by International Physicians for the Prevention of Nuclear War, Scientists for Global Responsibility, Campaign Against Arms Trade, Europeans for Medical Progress, and Physicians for Social Responsibility (2005), Elsevier's hack apparatchik retorted that weapons are 'central to the preservation of freedom and national security,' arms fairs are better regulated than sent underground, and many guns and bombs 'are vital elements for life-saving activities' (Cowden, 2005). Presumably those would be the same activities that saw the British and U.S. Governments invading Iraq and ushering in an unprecedented era of mass killings, as uncovered in ... The Lancet (Roberts et al., 2004). Ah hah, there, you see-relative autonomy, it's all fine-Elsevier doesn't stand in the way of editorial independence. Honor satisfied? No. It is no surprise that a journal publishing that fine piece of epidemiology rejected this opportunistic nonsense (The Lancet and The Lancet's International Advisory Board, 2005), or that the Journal of the Royal Society of Medicine headlined its own editorial on the topic thus: "Reed-Elsevier's Hypocrisy in Selling Arms and Health" (Smith, 2007). Needless to say, the journal's request for its publisher to cease engaging in industrial killing was not met. A few ethical investors sold their shares. But a dilemma remains: science and medicine are the most profitable part of this disgrace of a company's activities. What should scholars do? Should they perpetuate this state of affairs? They should refuse to have anything to do with the firm-never reading, editing, or writing for its journals. And that movement is growing across universities.

Prominent academics have long proposed publishing in cheap science journals, or pushing for increased library budgets as strategies for dealing with corporate greed. The American Mathematical Society has run repeated surveys of prices, despite astonishing attempts by corporate publishers to prevent it doing so by court action (undertaken right around the world). And in 2005, the Cornell Senate called on its members to familiarize themselves with the pricing structures of key journals in their fields, and reject price-gouging corporations by refusing to publish there or acts as reviewers. We should pick up on the example of our colleagues and urge the banishment of *post facto* commodification after open-

source publication; follow the lead of progressives in the Elsevier controversy; learn to work collaboratively, rather than as per the individualist humanities model; support special pricing and free distribution across the global South; and resist lowest-common denominator textbooks with endless piddling updates designed to minimize resale potential and hence fleece undergraduate students. And while we're at it, let's challenge the sadistic way that peer review works—the research shows that many, many journals are moving away from the cowardly pseudo-legitimacy of hiding the identities of authors and journal reviewers (Branin and Case 1998: 479, 481; Association of Learned and Professional Society Publishers, European Association of Science Editors, and Academy of the Learned Societies for the Social Sciences, 2000). So why not problematise that little bit of infantalization? But most of all, let's watch the publishing political economy of science and medicine. That will offer signs of what will happen in our tiny *barrio*.

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