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## Open Access and the Theological Imagination

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## **Abstract**

The past twenty years have witnessed a mounting crisis in academic publishing. Companies such as Reed-Elsevier, Wiley-Blackwell, and Taylor and Francis have earned unprecedented profits by controlling more and more scholarly output while increasing subscription rates to academic journals. Thus publishers have consolidated their influence despite widespread hopes that digital platforms would disperse control over knowledge production. Open access initiatives dating back to the mid-1990s evidence a religious zeal for overcoming corporate interests in academic publishing, with key advocates branding their efforts as *archivangelism*. Little attention has been given to the legacy or implications of religious rhetoric in open access debates despite its increasing pitch in recent years. This essay shows how the Protestant imaginary reconciles—rather than opposes—open access initiatives with market economics by tracing the rhetoric of openness to free-market liberalism. Working against the tendency to accept the Reformation as an analogy for the relationship between knowledge production, publishers, and academics, we read Protestantism as a counterproductive element of the archivangelist inheritance.

## **Another Reformation?**

The past twenty years have witnessed a mounting crisis in academic publishing. Companies such as Reed-Elsevier, Wiley-Blackwell, and Taylor and Francis have earned unprecedented profits by controlling more and more scholarly output while increasing subscription rates to academic journals. Harvard's Faculty Advisory Council signaled the severity of the problem in 2012 when it announced that the university's library could no longer afford the rising cost of journal subscriptions. "Prices for online content from two providers have increased by about 145% over the past six years," the Council memo reported, "which far exceeds not only the consumer price index, but also the higher education and the library price indices." The memo goes on to cite publisher profit margins of 35% as one consideration leading to the Council's conclusion: "Costs are now prohibitive" [Faculty Advisory Council 2012]. The announcement marked a key moment in debates about scholarly publishing not only because Harvard Library has one of the largest library budgets in the world but also because the story elicited attention from the popular press. As the *Guardian* reported, "The extraordinary move thrusts one of the world's wealthiest and most prestigious institutions into the centre of an increasingly fraught debate over access to the results of academic research" [Sample 2012]. An issue once confined to library budgets suddenly appeared to threaten agendas in scientific research, to encroach upon monograph budgets for humanities acquisitions, even to jeopardize public interests.

In their memo, Harvard's Faculty Advisory Council encouraged faculty to consider open access publishing as one means of alleviating the high cost of journal subscriptions. In the context offered by *The Guardian* report, however, open access surfaces as the only solution. And as the news began circulating around the academic blogosphere, open access grew from a single part of Harvard's strategy for combating inflated journal prices to become, in the words of one advocate, an "economic imperative" and a "moral imperative" [Taylor 2012]. The dramatic incline of rhetorical pitch is symptomatic of a pervasive feeling that corporate publishers systematically exploit academic labor. The feeling is understandable. Corporate publishing companies profit from state-sponsored research and the work of university-supported researchers using the neoliberal economic model of public-private partnerships. Public institutions assume

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the risk and much of the labor while private interests pursue strong market position and high returns. Even if they do not use the term *neoliberal*, critiques of for-profit academic publishers assume what political theorist Wendy Brown describes as one of the key arguments against neoliberalism, the claim "that marketization contributes to human exploitation or degradation... because it limits or stratifies access to what ought to be broadly accessible and shared" [Brown 2015, 29]. Advocates of open access publishing raise it as an ethical alternative to a neoliberal tendency toward unprincipled commercialization of public goods.

We argue, in part, that open access has served less as an alternative to commercialized academic research than as a moral cover for increasingly neoliberal policies. Brown's analysis of neoliberalism is especially helpful because, beyond identifying new forms of exploitation, she outlines "an order of normative reason" that organizes progressive solutions to the injustices of capitalism just as much as the economic policies aggravating those injustices [Brown 2015, 30]. That normative reason comes into view when Elsevier reports ending 2015 as the fourth largest open access publisher—the same year one of its major divisions reported 37% profit margins [Reller 2016] [RELX Group 2015]. Far from a moral force for counteracting the avarice of corporate publishers, open access initiatives have exposed new strategies for raising revenue, such as collecting author-paid Article Publishing Charges (APCs) that range from \$500 to \$5,000 USD [Elsevier OA]. The ability of corporate publishers to easily assimilate open access into their profit model merits more attention, especially as open access moves to occupy a dominant position among scholarly communications in digital media. That move manifested in 2013 when the Research Councils UK (RCUK) mandated an implementation policy to make all government-supported research in the United Kingdom freely available online [RCUK 2014]. Canada's three major research agencies mandated a similar open access requirement in 2015 [Government of Canada 2016]. In 2016, the European Union Competitive Council followed suit [Enserink 2016].

These policies arrive after nearly two decades' worth of work to imagine and create digital communications systems that would disperse control over knowledge production. Each mandate has its strengths and its limitations. But none of them quite fulfills the desire for non-commercial research and less restrictive publishing contracts that motivated many open access advocates. As Daniel Allington, a long-time advocate in the United Kingdom, wrote after the Research Councils mandate, "I feel like a man with a beard in a country where shaving has just been banned" [Allington 2013]. His oblique reference to biblical law hints at the fervent rhetoric framing open access issues. Since the mid-1990s, when cognitive scientist Stevan Harnad coined the term archavengelism to describe his work to promote open scholarship, the open access movement has incorporated religious rhetoric to organize the terms of debate over how and where academics publish. Evangelical strains of open access advocacy follow the trend of situating open scholarship in opposition to the rapacious excesses of commercial publishers. In this formulation, open access publishing carries the power to reform scholarly communications along the same lines that the Protestant Reformation intervened in papal control over salvation. The analogy likens the institutionalized gatekeeping that allowed the church to sell indulgences to the institutionalized gatekeeping that allows publishers to grossly inflate the cost of producing scholarly journals. The Internet, unsurprisingly, stands in as a technological equivalent of the printing press because it allows for the relatively inexpensive reproduction of text [Graham 2016]. Assuming a moral universe, the story ends with a social revolution that curtails the corporate monopoly on knowledge production much as the Reformation ended the papal monopoly on God's forgiveness. That conclusion, at least, would fulfill the non-commercial aspirations archivangelism claims for open access publishing.

Unfortunately, our capitalist world appears more ascendant than a moral universe. We must take stock of our current situation even as many academics continue to work for viable not-for-profit publishing models against the grain of corporate profiteering. How did an apparently anti-corporate project to make scholarship freer coincide with corporate innovations for extracting wealth from scholarly communication systems? Part of the answer lies in how different types of open access achieve the end result of free, online content. While archivangelists such as Harnad promoted open access delivered by voluntary repositories—designated as *green OA*—companies such as Elsevier created versions of open access delivered by journals—designated as *gold OA*. In some cases gold OA takes a form similar to *Digital Humanities Quarterly*, which uses Creative Commons licensing that leaves authors with permanent ownership of their work and lets them reprint that work without seeking permission or paying fees. In other cases, gold OA takes a form more like *Ampersand: An International Journal of General and Applied Linguistics*, which requires authors to license

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exclusive rights to Elsevier and charges \$1,000 USD to publish articles (\$250 USD for book reviews) [Guide for Authors n.d.]. With the advent of processing fees, some publishers now offer something designated as *hybrid OA*, which lets authors comply with open access mandates (by paying a fee) while publishing in subscription journals. Many authors choose this option when subscription journals hold a prominent place in their field. Thus publishers can advertise hybrid OA as an option that gives authors more freedom to publish where they want while collecting processing fees for material that appears in journals already paid for by institutional subscriptions—a phenomenon Research Libraries UK calls double dipping [Prosser 2015].

Unscrupulous uses of hybrid OA manifest a particular problem linked to the more general problem of academic institutions ceding control over scholarly communications to corporate interests. Recent controversies involving companies such as Academia.edu, ResearchGate, and Mendeley point to a scenario where free online distribution of scholarship consolidates rather than displaces corporate control over academic publishing [Matthews 2016]. As David Golumbia argues in a recent article, open access mandates not only fail to resist for-profit publishing but tend to provide more control to the corporations that own search platforms and databases so central to contemporary academic research. "OA as it is currently formulated," writes Golumbia, "works to hand more power and profit to these corporate interests while systematically denying individual producers the right to much more modest ownership interests in their own work product" [Golumbia 2016, 78]. The central issue missing from the open access debates, according to Golumbia, is academic labor. He points to the dismissive rhetoric marshalled by many open access advocates against so-called gatekeepers as evidence of a pervasive ideology at odds with the vested interests of researchers, non-profit publishers, and libraries. Similarly, in the seminal Open Access and the Humanities, Martin Eve cautions against rhetoric that dismisses the "necessary labour" provided by editors, reviewers, and publishers [Eve 2014, 151]. Building on these critiques, we intend to show how, in addition to lending neoliberal policy the weight of morality, religiously inflected rhetoric has enabled open access debates to imagine a world of free information somehow unfettered by the institutions that produce and organize research.

The model of the Reformation, in particular, dovetails with neoliberal logic by reimagining institutionally granted access to research materials as an obstacle to individual participation in a global marketplace of ideas. The religious imaginary lending credence to anti-institutional sentiment draws on the theological innovation known as a priesthood of all believers. Martin Luther placed at the foundation of Protestant reform the idea that all Christians are priests. While the Catholic Church insisted that the laity needed ordained priests to mediate their relationship to God, Luther argued that clergy merely minister to the laity by facilitating access to religious rites. As he put it, if any clergy "wrest this right from the laity and forcibly withhold it, they are tyrants" [Luther 1520]. The grounding belief that faith alone grants laity a right to practice the sacraments—putting all Christians in direct relationship to God—had far-reaching consequences for Protestantism. It inspired unsanctioned vernacular translations of the Bible and produced a scathing view of indulgences. Ultimately, many scholars connect Reformation theology to the rise of liberal democracy and laissez-faire economics.<sup>[3]</sup>

When academics draw on this tradition to frame open access as a moral and political issue, they do so rhetorically, without methodically addressing substantive historical connections or analogical correspondences. For that reason, we identify a theological imaginary operating in open access discourse rather than a proper theology. Harnad does not offer a Christian perspective on corporate publishing so much as mobilize the memory of Luther's critical theology when he describes his own "Subversive Proposal" for green open access as part of a "prophetic vision." Framed in those religious terms, open access resonates unmistakably with the priesthood of all believers when Harnad references the Catholic Church's imprimatur system for ratifying print, predicting scholars "will surely realize that it is they, not the publishers who merely give it the imprimatur, who are the controllers of the quality of the scholarly literature through peer review" [Harnad 1991]. As Luther insisted Christians need not ask the Catholic Church for license to publish religious texts, so Harnad insists academics need not ask publishers for permission to share their own writing online. The analogy fails to recognize how publishers enable particular kinds of complex knowledge production — from assigning DOIs and promoting circulation to organizing peer review and providing editorial feedback — because it reduces them to an illegitimate supervisory role.

Given the fraught debates surrounding open access publishing, we want to make clear that we too think academics should have the right to share their work online if they so desire. Our contention aims to clarify the mystification at work when a theological imaginary imbues open access rhetoric with an ethos of freedom that actual open access policies do not warrant. We focus here on the religious rhetoric coloring open access advocacy because it has attracted little critical attention even as the mandates continue to inspire discussions saturated with religious rhetoric. Those rhetorical transactions perform what philosopher Hans Blumenberg describes as a "reoccupation" of historical concerns no longer consistent with present circumstances. [6] When open access advocates position their cause as a secularized continuation of religious reform, they attempt to reoccupy a historical moment when new publishing technologies catalyzed the democratization of knowledge. Such metaphorical comparisons linking Reformation ideals with the open access movement show how the normative logic of neoliberalism works beyond policy at the level of rhetorical appeal, doing more to fit open access publishing for the intellectual marketplace than to clarify the socioeconomic consequences of free online distribution for scholarship. [7] Blumenberg diagnoses this sleight of historical rhetoric when he writes, "A certain specific content is explained by another one preceding it, and indeed in such a way that the asserted transformation of the one into the other is neither an intensification nor a clarification but rather an alienation from its original meaning and function" [Blumenberg 1983, 10]. When the content of open access gets explained in terms of the Reformation, we begin to feel how acute is the need for reform in the field of academic publishing even as the specific politics of reform grow faint.

Advocates have every reason to want open access to instigate change. However, the theological imaginary informing expectations for open access moves in exactly the wrong direction; it accommodates scholarly communications to techniques of wealth extraction rather than insulating research from market economics. Legitimizing open access as an evangelical cause forces open idealism to reoccupy the impossible theological position of our one true salvation in academic publishing. Blumenberg's theory of reoccupation pushes us to explicate unnecessary—and ultimately unhelpful—metaphorical conflations in open access rhetoric. His view of rhetoric as not merely deceptive but productive of theoretical thought also encourages us to recognize in rhetorical uses of metaphor the opportunity to reoccupy worthwhile positions seemingly foreclosed by the current field of debate, thus reanimating marginalized traditions of information sharing for our present circumstances. The open concept as derived from commercial imperatives, rather than moral or intellectual imperatives, has been assimilated by the rhetoric of open access. Yet we nonetheless see an opportunity to find a different inheritance in access to libraries. As institutions designed to support publics rather than markets, libraries can affirm a need for communities to control their own cultural heritage and knowledge production. Our hope is that the stewards of knowledge in a digital age might regain scholarly communications as a public good dependent on public institutions.

## The Evil Empire and Protestant Ethics

One of the easiest ways to see how open access advocates edge toward evangelism—even when using different terms—is to note the Manichean thinking that animates the field of debate. Manichaeism, for instance, has transformed the historic Elsevier logo into a mythological symbol. Subject to derision among communities that see it as diametrically opposed to the company's actual publishing practices, that artifact of print history now illustrates the alienated meaning that Blumenberg describes as the result of reoccupation. Isaac Elzevir first introduced the icon used today in 1620 to represent the interdependent relationship between publishers and scholars [Elsevier n.d.]. It features a tree entwined in grape vines providing fruit and shade to an old man, with a banner hanging near the bottom branches inscribed *non solus* (not alone). Four hundred years later, the company's critics have begun to reimagine the icon to convey other meanings entirely. Alexandra Elbakyan, founder of the pirate site Sci-Hub, has compared Elsevier's icon to the tree of knowledge in the Garden of Eden. By her reckoning, Elsevier forbids access to scholarly knowledge much as God forbade Adam and Eve from partaking in the fruit of knowledge [Elbakyan 2016]. The historical and still necessary partnership between publishers and writers gets sidelined as Elbakyan raises Elsevier to the status of universal creator. She proceeds to refashion God as a tyrant, giving us a story of good and evil that suggests publishers somehow prohibit knowledge production.

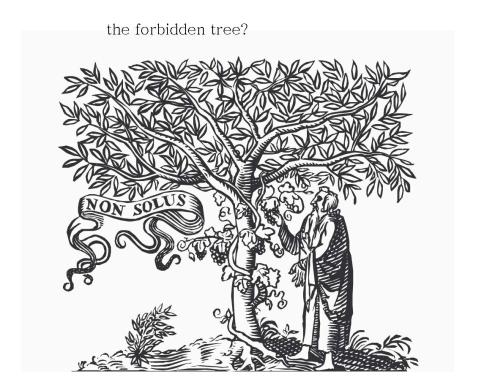
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# ELSEVIER

Figure 1. Official Elsevier logo (Elsevier 1620) $^{\left[8\right]}$ 

## Theft! the root of all sciences



**Figure 2.** Elsevier logo used by Alexandra Elbakyan in her presentation at the Library Publishing Coalition conference in 2016 (Elbakyan 2016)<sup>[9]</sup>

Like many others in academia, Elbakyan blames Elsevier for restricting access to scholarly literature by setting exorbitant prices. Certainly the exorbitant prices deserve criticism. However, her disdain for academic publishing at large exploits a Christian framework that leads to the untenable position of pitting researchers and publishers against one another. Elbakyan appropriated the Eden metaphor to suggest in a crude way that science, or academia more generally, should take control of the means of production. Under the right circumstances open access could help fulfill that goal, but Sci-Hub comes up short because it relies on the system of institutional subscriptions Elbakyan would see crumble. Thumbing one's nose at publishers and research services-even exploitative ones-hardly displaces the structure of power organized by international copyright law and academic research. Others have made more plausible suggestions for undermining Elsevier's near-monopoly on scientific publishing, but fall into the same rhetorical trap of equating commercial publishing with a prohibition on knowledge. British mathematician Timothy Gowers, for instance, organized an ongoing boycott against Elsevier in 2012 under the name The Cost of Knowledge [Gowers n.d.]. He encouraged academics to take a "bottom-up" approach to the publishing problem by refusing to write for Elsevier, review the company's articles, or serve on its editorial boards [Gowers 2012]. Although imperfect for academics who need to publish in those journals, Gowers's solution has the benefit of acknowledging the academic labor of 16,000 researchers as something worth leveraging. Like Elbakyan, however, the boycott falls into disingenuous rhetoric when it suggests Elsevier prevents research, as it does with the viral image of Elsevier's logo redrawn with locks and chains on the tree of knowledge where fruit should hang [@FakeElsevier 2012] [Gowers n.d.]. [10]

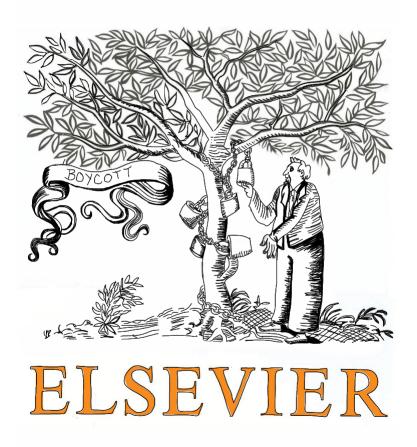


Figure 3. Adapted Elsevier logo encouraging Elsevier boycott (Forsythe, 2012)<sup>[11]</sup>

In reality, of course, Elsevier creates outlets for distributing scholarship according to institutional and economic privilege. The company has created serious problems for academic publishing, but those problems cannot resolve in the current rhetorical tendency to use the company's name as shorthand for evil. Invectives against Elsevier are all too common amongst proponents of open access publishing, if only because mythologizing the company inevitably caricatures the immoral power structures as dualistic. That quasi-religious dualism emerges when open access advocates name Elsevier as the Galactic Empire, the big bad wolf, Halliburton, the Borg, Sauron, Scrooge, Goliath, a parasite, a snake, and "sort of the Death Star of academic publishing" [Circasella 2015] [Ingram 2013] [Froelich 2013] [Dobbs 2013] [Taylor 2013c] [Brembs 2016] [Harnad 2015] [Northrup 2009]. Critics have reason to worry about corporate publishers that create fake journals or support international arms tradeshows [Suber 2009]. Couching criticism in dualistic terms, however, means those same critics end up in the role of open access prophets, publishing reformers, martyrs, or missionaries with a higher moral calling. These chosen few, the rhetoric suggests, will oust corporate publishers in favor of publishing tactics that exemplify egalitarianism, transparency, and access—that is, openness.

Advocates of open access draw on a range of mythological references to critique corporate publishers. Popular examples such as *The Lord of the Rings* and *Star Wars* easily mix with biblical examples such as Goliath and Eden. The combination of secular and religious dualisms finds a common thread in the Protestant ethic of universal priesthood. By metaphorically opposing publishers and researchers, they suggest the entire world can have access to knowledge if only we circumvent publisher-controlled databases in favor of supposedly unmediated online access. They propose a polarizing narrative–either support authoritarian publishers or oppose them, join or delete, buy in or boycott. Those who flirt with evil provide a cautionary tale inspiring further protests, campaigns, and boycotts. These narratives suggest that even if formerly independent services like Mendeley and Social Science Research Network cannot resist

the allure of corporate money, Elsevier users can nonetheless redeem themselves by deleting their accounts and pledging themselves to open access publishing. Open access evangelism thus reenacts the old call for repentance and conversion, inviting academics to set aside their former love for corrupt companies in favor of intellectual morality.

A few high-profile advocates for open access in particular rely on the language of morality to make their case. Mike Taylor demonstrates this style of evangelical rhetoric when he testifies in the *Guardian* article, "Hiding Your Research Behind a Paywall Is Immoral." Taylor portrays himself as a convert to open access. He is a "sinner who has repented" rather than a "righteous man speaking to sinners." Beginning with a confession about having once published in toll-access journals, he treats readers to a first-person account of his transformation. He links to his early closed-access articles as evidence of his sins, writing, "I heartily wish I'd never done it, and I won't do it again" [Taylor 2013a]. Taylor uses the language of transgression and repentance to set the stakes of discussions about open access, with salvation or damnation as the implied consequences of one's decisions to embrace or reject openness. This language recalls religious testimonies wherein the sinner publicly confesses his wrongdoing while affirming the theology held in common by the congregation. The testimony leverages guilt and community identity to encourage others to follow the path of the testimony-giver [Knowlton 1991]. Like a pastor making an altar call, Taylor exhorts other researchers to emulate him in rejecting priestly authority to publish in more democratic, open access venues.

Mike Taylor is not alone in calling researchers to faith as an open access evangelist. Michael Eisen—co-founder of the Public Library of Science (PLOS)—likewise plays on religious tropes to support his ideas about scholarly publishing. In 2014, he satirically portrayed himself as a disappointed convert to open access in "Why I, a Founder of PLOS, Am Forsaking Open Access." In this April Fools post, Eisen acts as a former adherent to the "religion" of open access, which he once led as a "personal crusade" while wearing a gaudy "Where Would Jesus Publish?" t-shirt to stir up attention [Eisen 2014]. Eisen uses his personal account—an anti-conversion narrative—to satirize opposition to open access and declare his continued adherence to open access principles. While he references his "Where Would Jesus Publish?" t-shirt self-deprecatingly in the April Fools post, Eisen has used the slogan with consistent conviction, if also flippant humor, since 2008 when he first debuted his WWJP? graphic in a blog post [Eisen 2008]. The apparent irony of using religious messaging to proselytize for scientific publishing dissipates when he explains his career-long mission to harness "the Internet's power" to make scientific research "more widely available by using a different business model" than scientific society journals [Eisen 2016]. Circumventing hallowed institutional control over publishing resonates clearly with a Protestant ethics of reform.

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Figure 4. "Where Would Jesus Publish?" icon developed by Michael Eisen (Eisen, 2008)[13]

Moving in a similar but more devout direction, some scholarly communications professionals have earnestly solicited Jesus's guidance in sorting out the ethics of academic publishing. Librarian C. William Gee poses Eisen's question in the title of his 2010 article, "WWJP?," suggesting Jesus likely would oppose traditional publishers in the same way he opposed the power structures of his day-namely cheaters and thieves in the form of the Sadducees and Pharisees. Gee argues further that Christ would have favored non-traditional, seemingly unmediated forms of communication, like podcasts [Gee 2010]. Another librarian, Malina Thiede, likewise compares open access to an upstart religion in the short article, "On Open Access Evangelism." As a librarian and open access supporter, she recommends converting faculty members and students to open access by distributing petitions and pamphlets or by sponsoring public speaking engagements on university campuses. She continues by cautioning organizers to select speakers carefully to avoid "preaching to the choir." Undergraduates, she explains, are "particularly fertile ground for the message" because most are "idealistic and not jaded by the publishing system." Continuing with the metaphor, she names institutional open access mandates as the "holy grail" of campus outreach efforts [Thiede 2014, 22]. While Taylor, Eisen, Gee, and Thiede create their own religious imaginaries for their own contexts, each suggests academia should regard open access as a moral issue. The language of reformation, conversion, and evangelism lets advocates perform an ethics of religious reform that invites audiences to set aside old loyalties to the authoritarian publishing priesthood and enter into a purer, less hindered relationship with the products of academic research.

In keeping with its evocation of religious ideals, the open access movement has coupled stories of conversion and redemption with examples of asceticism and sacrifice. No figure exemplifies that role better than Aaron Swartz, who appears in open access discourse as a martyr for having suffered dearly in his fight for the cause. Swartz was a programmer and Internet activist who, in 2010, downloaded some 4.8 million articles from JSTOR. Federal prosecutors

indicted him under the Computer Fraud and Abuse Act of 1986 for the potential infraction. While still facing thirteen felony charges, Swartz committed suicide on January 11, 2013.<sup>[14]</sup> The headlines following his death formed a public consensus: "Freedom's Martyr: The Story of Aaron Swartz" [Smith 2014], read one, while another contemplated "Aaron Swartz and 21st-Century Martyrdom" [Stoller 2014].<sup>[15]</sup> The tragedy of Swartz's death makes the outpouring of praise for his work both understandable and sympathetic. Yet the hagiographic terms of that praise contribute to misplaced contempt for the so-called gatekeepers of knowledge by situating researchers against any research tool that charges a subscription fee. As Golumbia puts it, "The contempt looks as if it is directed at a for-profit publisher that gouges authors and customers alike, yet without difficulty it turns into an attack on an entity whose purpose is to support, not profit from, academic work" [Golumbia 2016, 97]. The universalizing ethics of open access—befitting the universal ethics of Protestantism—fail to recognize important distinctions between JSTOR and Elsevier. Elsevier owns and publishes journals, while JSTOR merely digitizes and distributes them; Elsevier is a corporation, while JSTOR is a nonprofit; Elsevier charges exorbitant prices, while JSTOR provides its services for relatively low costs.



Figure 5. Aaron Swartz dedication inviting viewers to "Be Free" (Newby, 2013)[16]

The rough comparison makes clear how JSTOR can achieve a symbiotic rather than parasitic relationship to academic publishing, although we would hesitate to raise it as a paragon. Rather, we want to suggest how dualistic constructions, putting subscription tools on one side of a conflict against open access initiatives, fail to appreciate the complex field of research services. Further, by lumping together companies like Elsevier and JSTOR, the animus against toll-access resources fallaciously implies we might secure access to research materials without the institutions responsible for producing and disseminating them. Evidence of Swartz's anti-institutional sentiments appear in a "Guerilla Open Access Manifesto" that he published online in 2008. A representative passage captures the style and message of the manifesto:

We need to take information, wherever it is stored, make our copies and share them with the world....We need to download scientific journals and upload them to file sharing networks. We need to fight for Guerilla Open Access. With enough of us, around the world, we'll not just send a strong message opposing the privatization of knowledge — we'll make it a thing of the past. [Swartz 2008]

Prosecuting attorneys viewed these statements as evidence of Swartz' intentions to open access forcibly and illegally to copyrighted information. The charges they brought against him, had they been carried out, could have sent him to prison for over 50 years [Cushing 2012]. The aggressive—indeed, excessive—prosecution contributes to the martyrdom narrative by embattling law-and-order copyright against open access. Swartz's Manifesto participates by setting its own bellicose terms for circulating scholarship online as part of a crusade. Accepting those terms perpetuates the idea that sharing journal articles outside of toll-access databases can somehow sidestep the difficult problems facing academic publishing simply by making intellectual property rights and publishers "a thing of the past."

The idea of relegating copyright to the past invites the mistaken presumption that we no longer need the institutions designed to share copyrighted materials. Libraries in particular can appear as just so many obstacles along the path toward unlimited access. To question that view of research institutions, however, one need only point to the file sharing networks that let academics circulate research outside the legal structure of copyright. Those networks inevitably remind us that protest piracy relies on the very systems it hopes to end, as in the case of Sci-Hub, or on private companies that have no responsibility to academics. An example of the latter circumstance emerged in response to Swartz's death when Micah Taylor, Eva Vivalt, and Jessica Richman created #pdftribute to honor his legacy. The hashtag invited Twitter users to post full-text copies of articles in memory of Swartz, thus opening access to that work for public use. By January 13, 2013, the hashtag had garnered some 15,000 tweets and 40 million impressions [Murphy 2013]. Although a heartening tribute, Twitter links to articles hosted at Academia.edu hardly offer a sound alternative to the organized collections and discovery tools that libraries make available to researchers. Trading the library catalog for several thousand tweets would spell disaster for access. That fact seems surprisingly counterintuitive in a rhetorical situation that celebrates open access by imagining Swartz will "live on, a glorious son" [Vignesh 2013].

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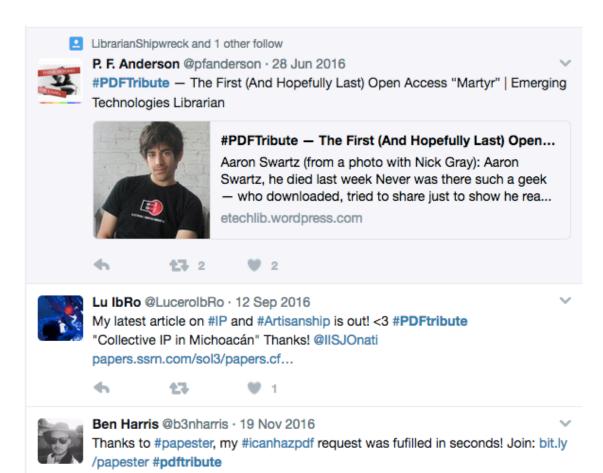


Figure 6. Tweets from the #PDFTribute honoring Aaron Swartz (Anderson, 2016).<sup>[17]</sup>





Figure 7. Aaron Swartz memorial (postsoftware, 2013)[18]

# From Free to Open

One reason Swartz presents such a compelling figure for so many different constituencies is because he worked comfortably between the world of hackers and the world of researchers. Swartz's facility in different intellectual spheres contributed to his tremendous impact as an activist. At the same time, that capacity makes him a clear vector for tracing the flow of ideas about open access between hacker communities, popular pundits, and academics. Here Timothy Brennan's notion of *flow* elucidates the circulation of ideas as more than mere influence. In Brennan's words, flow "suggests a market-generated excitement for concepts where the borrowing of ideas is concealed in order to enact an individualized rediscovery of a dominant cliché" [Brennan 2006, 37]. The cultural clichés Brennan questions have to do with globalization and many of the same neoliberal policies propelling open access mandates. For our purposes, dominant ideas about the Internet as a global force for opening knowledge flow between different intellectual communities, each with its own motivations yet all trading on the generally positive and far-ranging connotations of *open* as unregulated, clear, free, accessible, candid, public, and transparent. Different affiliations to openness coalesce in the term's vague sanguinity and manifest in the rhetorical move to reoccupy an oppositional stance to corrupt institutions, imagined most dramatically as a new Reformation. Tracing the flow of open advocacy not just through academic debates but through a broader appeal to openness in popular discourses will clarify how, rather than insulating scholarly publishing from market forces, open access squares with commercial interests.

To appreciate how market-generated excitement can energize a theological imaginary around open access, it helps to recall that we experience the Internet differently today than we did in the late 1990s. Those of us who lived through it probably do not need any reminder of dial-up modems, AOL chat rooms, Angelfire and GeoCities websites, or the

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novelty of sharing MP3 files. However, even folks who feel a twinge of nostalgia at reading those names might need to check Wikipedia–first launched in 2001–to recall that Wi-Fi was the name of a brand new trade alliance in 1999 or that the ubiquity of touchscreen technology was about a decade off yet. The rapid naturalization of such brand names and the digital technologies they commercialize can complicate the work of recapturing the heady days of early Internet culture. Yet that historical moment bears some consideration for understanding debates about open access publishing. Best-selling titles like *The Cluetrain Manifesto*—featuring the popular 95 Theses—and, more recently, Douglas Rushkoff's *Ten Commandments for a Digital Age* make clear how the turn of the millennium laid the foundation for exploring digital publishing models in academia according to religious metaphors. With regard to rhetorical strategy, many of the negotiations over open access publishing replay in an academic context the contentious debates over open source software in the 1990s.

The most notorious of those debates produced the term *open source*. The idea of open source software, much like the idea of open access publishing that it inspired, took shape in response to increasing corporate monopoly. Hackers and archivangelists both saw the Internet as a way around corporate-controlled information access. For hacker communities, the web provided a means of mass collaboration and distribution that could circumvent regular software markets. Corporate attempts to control Internet access threatened to stifle that realm of non-commercial exchange and Microsoft came to represent the worst of corporate overreach when it cornered the browser market with Internet Explorer. [19] Microsoft's biggest competitor, Netscape, lost most of its customer base to Internet Explorer in what is now known as the first browser war. In January 1998, as a last-ditch effort to recoup favor among hackers, Netscape announced plans to release all future versions of their web browser for free and to license their base code for public use. The idea cut against the grain of commercial software models by drawing inspiration from the free software movement, which championed the idea of giving users access to the source code and distribution rights to encourage people to hack—that is, tinker with an application's functionality [Kelty 2008, 105–7].

The plan did not gain traction fast enough to save Netscape. It did, however, create a rift among hackers and proponents of free software. Netscape's announcement inspired a contingent of the free software movement to pursue, as influential hacker Eric S. Raymond put it, "the serious push to get 'free software' accepted in the mainstream corporate world" [Raymond 1998]. Before Netscape's decision to pursue a free software model, Raymond assumed the emphasis on free and the unabashedly left-leaning tradition of *copyleft* activism unnecessarily kept commercial enterprises at arm's length. Hackers took pains to clarify how free software might be compatible with for-profit business models. The founder of the Free Software Foundation, Richard Stallman, famously encouraged people "to think free as in free speech, not free beer" [Lessig 2006]. When Netscape invited more mainstream interest, however, Raymond decided the free software movement needed a makeover that would neutralize its anti-commercial rhetoric. He started the Open Source Initiative with business-minded supporters and began the work of rebranding free software as open source, laying the rhetorical ground for open access publishing.

Definitions of open source software resonate with the aims of early open access initiatives and look nearly identical to standard criteria for free software. In general, open source licensing allowed users to access, edit, and distribute software without restrictions. The Open Source Initiative aimed at reforming the cultural politics of free software, not the engineering practices it enabled. Stallman articulated the critical difference between *free* and *open* software precisely when he expressed concern that "the rhetoric of 'Open Source' focuses on the potential to make high quality, powerful software, but shuns the ideas of freedom, community, and principle" [Stallman 1999]. Where Stallman championed a philosophy of users' rights, Raymond championed pragmatism geared toward developing better software. The different motivating philosophies caused a schism that marginalized free software and aligned open source with corporate interests. Raymond explained that goal with a short call-to-arms published in the weeks after Netscape announced its historic plans. There he described the idea of free software as inimical to marketing: "The term makes a lot of corporate types nervous" [Raymond 1998]. Later he clarified his view that the Free Software Foundation failed because "its evangelism had backfired" [Raymond 1999b, 206]. He suggested by contrast that the Open Source Initiative "should be evangelizing top-down" to convert "CEO/CTO/CIO types" [Raymond 1999a, 207]. In important ways, the battle over terminology occurred at the rhetorical level of publicity. As popular Internet skeptic Evgeny Morozov put it, the open source camp "won with better PR," not better ideas [Morozov 2013].

The narrative carried forward by the Open Source Initiative allowed its vision of free labor, faster innovation, and better software to flow from a relatively marginal hacker community into the mainstream tech industry on its way toward the business world. Raymond's most influential writings, collected in The Cathedral and the Bazaar, argued for alternatives to proprietary software development by appealing to readers frustrated with Microsoft's dominance. With Microsoft playing the role of corporate giant, Raymond used language strikingly close to Harnad's to cast himself as an "accidental revolutionary" and the open source operating system Linux as "subversive" of slow, centralized development [Raymond 1999a, 21]. [20] That move fitted his critique for commercial assimilation even as it also painted him as an iconoclast disruptive of sacred idols. His signature piece, the title essay in The Cathedral and the Bazaar, established the dichotomy that convinced decision-makers in the business world that open source could structure "a succession of miracles" [Raymond 1999a, 30]. Raymond's parable characterizes proprietary software like Windows as "cathedrals, carefully crafted by individual wizards or small bands of mages working in splendid isolation" [Raymond 1999a, 29]. In contrast to those "quiet, reverent" cathedrals, he explains, open source communities "resemble a great babbling bazaar" [Raymond 1999a, 30]. That Raymond champions bazaars-marketplaces-announces his difference from the Free Software movement while also positioning him as critical of big software corporations. His iconoclasm adopts particularly Protestant characteristics by objecting to symbols of Catholic hierarchy while arguing for direct input from autonomous individuals who determine their own mode of participation.



**Figure 8.** Visual notes created at the Open Education Conference in 2012, illustrating Raymond's *The Cathedral and the Bazaar* (Forsythe, 2012)<sup>[21]</sup>

Raymond's deprecation of a quintessentially Catholic symbol linked his essay to a late-90s zeitgeist of tech writing. That body of literature took the Protestant Reformation as a model for understanding how the Open Source Initiative engaged government and corporate powers. Popular publications such as *Salon* chronicled the open source saga with titles like "The Saint of Free Software" and "Let My Software Go!" [Free Software Story 1999]. Thomas Scoville offered one of the more systematic analogies in his *Salon* article, "Martin Luther, Meet Linus Torvalds." Torvalds, sponsor of Linux, not only meets Luther in Scoville's account but also becomes Luther for the digital age. Luther's challenge to papal authority sets the stage for an elaborate analogy situating the Open Source Initiative as heir to the Protestant Reformation. Why? "Because Torvalds wants to shift power back in your direction," Scoville writes. "Because Torvalds'

God, like Luther's, wants you to know Him on a first-name basis." He goes on to explain why "the Microsoft papacy is not amused" [Scoville 1998]. Linux users, the idea goes, had a unique opportunity to reform the tech industry and individual users' relationship to personal computing.

The great, insular tech companies stood between users and their computers, according to this analogy. And worse, they created institutional barriers between computing platforms that need not exist. The computing reformation led by open source evangelists promoted self-organized hacker communities that seemed to operate without such institutional barriers. Nobody was more emphatic over the Internet's apparent ability to make corporate institutions obsolete than David Weinberger in *The Cluetrain Manifesto*. He expressed the zeitgeist when he wrote, "The spiritual lure of the Web is the promise of the return of voice" [Weinberger 2000, 39]. In the Cluetrain's 95 Theses, we see a crystallization of Protestant ethics aligned with the spirit of capitalism in the celebration of individual access to markets unimpeded by corporations. Extending the logic forwarded by the Open Source Initiative, Weinberger characterized all corporations as cathedrals working to control rather than enable market transactions.

With help from tech journalism, the Open Source Initiative planted the seed for what has since become a universalizing call for "open source everything." [22] One leader of that call, Robert David Steele, makes plain the high stakes advocates place on open source information technology. His 2012 book titled The Open-Source Everything Manifesto proclaims the belief that "a public able to access all information all the time" can build "a prosperous world at peace" [Steele 2012, xiv]. Extending his vision of open everything beyond the material world, he goes on to suggest that universal access to information will let humans "become One with God through transparency, truth, and trust" [Steele 2012, xix]. Steele's mysticism takes mass collaboration as the cultural practice leading to transcendent forms of knowledge unavailable under current conditions. With a background in government and military intelligence, Steele bends his suggestions toward better solutions for informing public officials, such as an open source intelligence agency separate and independent from the CIA. How mass collaboration would work in such a context remains vague, yet Steele's religious conviction in the efficacy of mass collaboration determines his account of openness as not just a method for sharing computer code but also a fundamental value for modifying, to his mind, literally everything. Its tendency toward universalist formulations of open access makes this manifesto a utopian example of the genre. As implausible as Steele's political vision appears, however, the spirit of openness informing it has given shape to new experiments in state governance, such as Barack Obama's Open Government Initiative and the Public Data Group in the United Kingdom.

Open initiatives have entered the political sphere. Yet no single movement or coherent politics organizes under the sign *open*. If the initial rift among hackers implied divergent positions on open source as a concept for organizing economic resources and social relations, the more recent trend toward open everything implies an even more diverse field of investment in the term. That is one reason publishing companies like Elsevier can market themselves as "unleashing the power of sharing" at the same time they sue university libraries for disclosing subscription rates [Wise 2016]. [23] Accusations of so-called openwashing suggest such claims amount to empty branding. As Nathaniel Tkacz has argued, however, the problem of emptiness may run deeper than Elsevier's intentions. He calls *open* an empty signifier, "one whose very function and appeal rests precisely on its ultimate vacuity" [Tkacz 2013]. The vacuity, or at least the pliability, of openness as an intellectual or political ideal helps account for its traction in spheres as diverse as software development, government policy, and academic publishing. As sociologist Christopher Kelty observes, "While *free* tends toward ambiguity... *open* tends toward obfuscation" [Kelty 2008, 143]. By pointing to strategic obfuscation, Kelty reminds cultural critics that the rhetoric of open access exceeds the problem of signification to encompass political positioning as well. Openness, from its conceptualization as a marketing solution for hackers to its political arrival in the form of new initiatives and mandates, operates as what political analysts once called a glittering generality: a vague term with generally positive connotations.

## The Politics of Publishing

The antiquated but nonetheless germane concept of a glittering generality explains the rhetorical success of openness. Who could accept its opposite—closed access? The idea is not only uninviting but also contradictory, all the better to ensure the positive value associated with open initiatives. The Institute of Propaganda Analysis introduced the term

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"glittering generality" in their 1937 publication *The Fine Art of Propaganda*, which may be the first text to raise openness to a political ideal. In the course of rejecting undemocratic political developments in the United States and Europe, the Institute argued for public discourse "out in the open": "Around the cracker barrel, a spirit of friendly good sportsmanship has been the treasured tradition" [IPA 1939, 3–4]. Their defense of democratic principles took aim in particular at Catholic extremist Father Charles Coughlin. As an anti-Semitic socialist, Father Coughlin epitomized everything the United States opposed in the years leading up to World War II. His newspaper and radio program, repugnant in the extreme, certainly existed "out in the open" in the sense that he made them available for public consumption. The sense of open that the Institute advocated did not mean, primarily, accessible. Rather, the authors of *The Fine Art of Propaganda* gave openness an ideological value constellated with other democratic virtues such as independent thought and research. In a world split "as never before between two faiths," the foreword explained, open discussion offered a mode of sincere communication that could resist the deceptions associated with autocracy [IPA 1939, vii].

The ideological sense of openness intended by the Institute for Propaganda Analysis found philosophical footing in the work of Karl Popper. During the same years the Institute worked to discredit the rhetorical sleights of propagandists, Popper wrote his best-known work of political philosophy, *The Open Society and Its Enemies*.<sup>[24]</sup> And like the Institute. Popper understood openness as a political solution to the historical problem of defending liberal democracy against totalitarianism as it manifested in fascist and communist states. This line of thinking made open discourses-that is, discourses open to critique, revision, negotiation-the cornerstone of democracy. While discourse moves into the foreground, the democratic institutions that support them appear as abstractions, as when Popper described an ideal political process as rational: "Only democracy provides an institutional framework that permits reform without violence, and so the use of reason in political matters" [Popper 1962, 4]. Given the context of its historical moment, one can appreciate how Popper's opposition to unreasonable discourse and violent reform would appear as implicitly anti-Nazi even without staking out a political position. More than any institutional program or framework, however, the first volume of The Open Society and Its Enemies concludes with a strong emphasis on "the new faith of the open society, the faith in man, in equalitarian justice, and in human reason" [Popper 1962, 189]. By mustering social faith in opposition to totalitarianism, Popper left the problem of an open politics implicitly linked to liberal democracy and free market economics as if openness constituted the animating spirit of capitalism. That meaning of the "open society" grew more prominent in the second half of the twentieth century within a Cold War context.

The influence of Popper's legacy on open access debates started to take shape in the mid-1980s under the direction of billionaire businessman George Soros. While Popper left the question of institutions abstract but implicitly related to state power, Soros made them concrete and explicitly geared toward commercial enterprise. Soros began implementing an economic version of Popper's open society in 1984 with an alliance between his primary foundation in New York City and the Hungarian Academy of Science to establish the Soros Foundation Budapest. Other foundations in the region followed as Soros labored under the influence of what he described as "rather potent messianic fantasies" to open communist states up to neoliberal, capitalist influence [Soros 1990, 3]. "I fancied myself as some kind of god or economic reformer," he wrote in 1987 [Soros 1987, 362]. By 1993 Soros had created the Open Society Institute (later renamed the Open Society Foundations) to manage various foundations operating in the former Soviet Union with his financial support [Hoduski-Abbott 2003, 75–77]. In this way, Popper's philosophical faith in reason inspired a push to shape political and economic forces that, after the Cold War, would create the material conditions of international knowledge production.

The Open Society Institute's \$3 million grant to support the Budapest Open Access Initiative (BOAI) illustrates one avenue of influence it used to achieve that mission. Widely understood as coining the term open access as well as defining its scope, BOAI first invited universities, libraries, and professional associations to "embrace open access as a means of advancing their missions" in 2002 [BOAI 2002]. Inspired by the theological imaginary that some of its most prominent signatories helped popularize (notably Eisen and Harnad), the Budapest initiative struggled to imagine libraries and universities as anything other than a barrier to scholarly communications in need of reform. Since their first meeting the initiative has periodically reaffirmed their goal "for Open Access (OA) to all new peer reviewed research" [BOAI 2017]. The universal sweep of the mission betrays a misunderstanding of different institutional missions and different fields of research. Such extravagant aims conferred urgency and simplicity to the open access message while

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it remained a marginal force in academic publishing. Fifteen years and several important mandates later, BOAI proclaims the same message as if its implications have not changed.

Part of what we have argued is that the implications of open access advocacy did change as it moved into the mainstream, starting with the 2012 Research Councils UK mandate. The religious, especially Protestant, rhetoric that once conveyed moral opposition to excessive profit margins and unnecessary restrictions on scholarly communication just as easily informed a neoliberal argument for open access on the basis of economic development and free trade. David Willetts, UK Minister of State for Universities and Science, demonstrated the smooth rhetorical pivot from attacking the so-called cathedrals of corporate publishing to attacking academic institutions when he made the case for open access in a *Guardian* op-ed titled, "We Cannot Afford to Keep Research Results Locked Away in Ivory Towers" [Willetts 2013]. Willetts blamed academic institutions for sequestering research behind paywalls, as if university libraries conspired with faculty to devise that system of payment. Calling for more "transparency," he invoked openness in Popper's sense of enlightenment rationality and state accountability as a justification for mandating pay-to-publish gold open access. His argument obscures the fact that libraries have a method of delivering free content to users, one that extraordinary inflation and privately controlled online databases threaten to break. Nowhere does Willetts mention those problems associated with the corporatization of academic publishing that the open access movement sought to redress, yet the anti-institutional force of open advocacy carries his argument all the way to its concluding appeal "to commercialise the fruits of [British] research more quickly" [Willetts 2013].

The archivangelists generally do not object to commercial interests comingling with academic research. Yet, despite including familiar watchwords, the RCUK's mandate did not impress them. Mike Taylor greeted a revised form of the mandate on his blog with a vomiting stickman and called it "the result of lobbying by a truly regressive publishing industry" [Taylor 2013b]. Harnad issued an equally disgusted statement arguing that the new policies would waste money while propping up the status quo in publishing [Harnad 2012]. In April 2015, *Times Higher Education* reported that UK research organizations spent more than £10 million on article processing charges in the first year of the policy [Else 2015]. The trajectory toward corporate assimilation of open access drove Harnad to declare his retirement from archivangelism in early 2016. "I fought the fight and lost," he tweeted in an exchange with Michael Eisen, "and now I've left the #OA arena" [Harnad 2016a]. Even in that farewell note his rhetoric borrowed from a theological imaginary, this time reoccupying the position of Apostle Paul. "I have fought the good fight," wrote Paul as he faced martyrdom. "I have finished my course, I have kept the faith" [Timothy KJV]. Harnad confirmed his retirement in a subsequent interview that featured a picture of the "open access archivangelist" pointing to the heavens. His alienation from open advocacy, he explained, grew over time as he repeated the same arguments to no avail [Harnad 2016b].



At every single step of the way, the RCUK policy has been weakened. From being the best and most progressive in the world, it's now considerably weaker than policies already in action elsewhere in the world, and hardly represents an increment on their 2006 policy. Crucially, all three of the key differences discussed in March's draft policy have now been eliminated:

Figure 9. Mike Taylor's reaction to RCUK mandates (Taylor, 2013)



Figure 10. Stevan Harnad, archivangelist (Poynder, 2007)<sup>[25]</sup>

If repeating the same rhetoric of archivangelism did not succeed in achieving what Harnad hoped, one might fairly suggest a new approach. Protestant metaphors have provided a convenient rallying point for open access advocates but these same stories emerged from western socioeconomic traditions that marry well with aggressive corporate profiteering and suspicion of intermediary institutions—publishers, certainly, but also libraries and non-profit organizations like JSTOR. In doing so, open rhetoric has mobilized individual action without imagining how sustained change in academic publishing might build on existing information infrastructures. By way of conclusion, we want to propose a different understanding of online access that does not resort to a dogmatic universalism bound up with the Protestant imaginary. If the anti-cathedral rhetoric of open access reoccupies the perspective of one true religion to offer one true access solution, we want to suggest a community-oriented perspective that draws on a tradition of public support for organizing and disseminating knowledge. [26]

We recognize in libraries a centuries-long tradition of caring for information—its access and regulation; its organization and contextualization—as a public good that can incorporate various political, cultural, and religious values. Although neither simple nor unproblematic, the tradition of public libraries carries with it an ideal of democratic education currently under threat by a broken model for academic publishing. More practically, libraries have a variety of access solutions from onsite use and traditional lending to online viewing and download. More than cathedrals, bazaars, or evangelical

missions, libraries have the potential to support research communities by investing in not-for-profit knowledge systems. By contrast, the rhetorical tradition inherited from open source computing weakens democratic publishing solutions by providing moral legitimacy to neoliberal trends that political theorists such as Wendy Brown link to an erosion of self-governance. In that sense, open evangelists, like many missionaries before them, find themselves implicated in furthering exploitative traditions even as they spread the good news of equality, democracy, and universal access [Hathcock 2016]. We hope to see open access advocacy invest itself less in circumventing public institutions—even if their power structures deserve critique—and invest more in new systems for sharing knowledge that place publishers, libraries, and authors in functional relation to one another.

#### **Notes**

- [1] Other suggestions included publishing in journals with sustainable subscription costs, moving journals to sustainable pay-per-use systems, unbundling subscriptions, and encouraging professional organizations to take control of scholarly literature [Faculty Advisory Council 2012].
- [2] We want to make clear here that we do not oppose all open access mandates. While critics such as Jeffrey Beall make generalizations against open access initiatives, we mention them here only as an index of the growing importance of open access. We do, however, argue that the growing prominence of open access publishing requires more attention to the details of policy and more skepticism in the face of idealistic rhetoric, whether that rhetoric expresses a pro- or anti-open access position.
- [3] Most famously, Max Weber (2001) argued that Protestant ethics spurred the development of capitalism. For more recent examples see: [Engeman and Zuckert 2004] [Waldron 2002] [Woodberry 2012]. The affinity linking the Protestant Reformation, liberal democracy, and capitalism need not be understood as natural to be understood as a defining condition of modernity. That historical condition is important to understanding why the seeming anti-corporate rhetoric of religious reform tends nonetheless to reconcile capitalist goals with open access.
- [4] There are exceptions. For instance, Gee (2010) does attempt to bring theological analysis to bear on deciding where to publish academic articles when he asks, without irony, "Where Would Jesus Publish?" [Gee 2010].
- [5] For Harnad's "Subversive Proposal" see [Okerson and O'Donnell 1995].
- [6] For an introduction to the concept of *reoccupation*, see [Blumenberg 1983]. For an explanation of how reoccupation necessarily involves a rhetorical transaction, see [Blumenberg 1987].
- [7] Graham (2016) makes a similar point about the rhetorical value of the printing press as a metaphor for understanding the Internet [Graham 2016].
- [8] Elsevier, I. "Logo des Verlags Elsevier," image (1620). Available at https://commons.wikimedia.org/wiki/File%3AElsevier.svg. [11 April 2017].
- [9] Elbakyan, A. "Why Science Is Better with Communism? The Case of Sci-Hub," presentation slide (2016). Available at https://digital.library.unt.edu/ark:/67531/metadc850001. [11 April 2017].
- [10] For more on @FakeElsevier and the serious concerns motivating the parody account, see [Dear Elsevier 2012].
- [11] Forsythe, G. "Boycott Elsevier," logo (2012). Available at https://www.flickr.com/photos/gforsythe/6799831691. [11 April 2017].
- [12] Eisen sells "Where Would Jesus Publish?" t-shirts on Zazzle for \$18.95. Available at: http://www.zazzle.com/mbeisen. [11 April 2017].
- [13] Eisen, Michael. "Where Would Jesus Publish?" image. *it is NOT junk* (9 October 2008). Available at http://www.michaeleisen.org/blog/? p=64. [11 April 2017].
- [14] Charges against Swartz included breaking and entering, wire fraud, computer fraud, unlawfully obtaining information from a protected computer, and recklessly damaging a protected computer. See [Kirschbaum 2011].
- [15] For further examples of the tendency to beatify Swartz, see [Day 2013] and [Wihbey 2015].
- [16] Newby, K. "Aaron Swartz Graphic," image (2013). Available at https://commons.wikimedia.org/wiki/File:Aaron\_Swartz\_Graphic.png. [11 April 2017].
- [17] Postsoftware. "Aaron Swartz Memorial," image (2013). Available at http://postsoftware.org/2013/01/25/aaron-swartz-memorial. [11 April

- [18] Weinstein, P. "Saint IGNUcius of the Church of Emacs," image (2002). Available at https://www.flickr.com/photos/pdweinstein/16857951635. [11 April 2017].
- [19] The United States brought an anti-trust suit against Microsoft in May 1998. The decision, handed down in an appellate court three years later, found Microsoft in violation of the Antitrust Act. For a full analysis of the case, see [Weinstein 2002].
- [20] The claim that "Linux is subversive" serves as the opening line of Raymond's original essay, "The Cathedral and the Bazaar" [Raymond 1999a], and survives in the book editions.
- [21] Forsythe, G. "The Cathedral and the Bazaar," visual notes (2012). Available at https://www.flickr.com/photos/gforsythe/7985992388. [11 April 2017].
- [22] For further evidence of this trend, see a series of TED talks from 2005: [Benkler 2005] [Leadebeater 2005] [Rheingold 2005] [Shirky 2005].
- [23] For more on Elsevier's lawsuit see: [Hadro 2009].
- [24] In the preface to the second edition, Popper writes that he worked on the book from March 1938 to 1943 [Popper 1962, viii]. The Institute for Propaganda Analysis remained active from 1937 to 1942.
- [25] Poynder, R. "Stevan Harnad," image (2007). Available at http://poynder.blogspot.com/2007/07/oa-interviews-stevan-harnad.html. [11 April 2017].
- [26] A few recent initiatives associated with the digital humanities mark positive steps toward library support for community-driven access. Importantly, these initiatives avoid replicating the theological imaginary of open access. See the Open Library of Humanities for an example that encourages collaboration between libraries, publishers, and scholarly associations [Open Library of Humanities]. For a discussion of how Traditional Knowledge labels and the Mukurtu CMS represent more nuanced perspectives on access, see [Christen 2015]. In the sciences, SciELO and Redalyc offer models of open access that rethink the mandate model for encouraging free, online access to research. See [Packer et al. 2014].

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