

John Willinsky, *[The Intellectual Properties of Learning: A Prehistory from Saint Jerome to John Locke](#)* (Chicago: University of Chicago Press, 2018).

OPEN ACCESS FINAL DRAFT

Chapter One The Commonwealth of Learning

The “final draft” of this chapter has been made open access through a special arrangement with the University of Chicago Press, reflecting their interest in exploring the access themes raised in the book.

Note that the final draft, which has benefited from rounds of peer review and revision before being accepted for publication by the press, differs at a great many points from the published text of the book. The book benefited from the press’ excellent copyediting, as well as my revisions and proofreading (with the help of colleagues) in that process. Those who are unable to obtain a copy of the published book from which to cite may wish to quote from and reference the final draft of this chapter as follows:

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Chapter 1

The Commonwealth of Learning

This book offers an extended historical answer to what I have experienced as a present and pressing question about the circulation of knowledge. The question can be posed a number of ways, but runs along the lines of: *Why in the world would anyone expect that academic research and scholarship should be freely available online?* The question comes to mind when one considers the growing number of university faculty members and librarians who have been working over the past two decades to create “open access” to this body of knowledge. These advocates of open access have not been short of answers to this sort of question. The populists among us appeal to the tax-payers’ investment in government-funded research, which surely earns the public a right of access to the resulting work. The philosophers point to how scholars’ unrestricted access to research and scholarship is a prerequisite for its very claim to knowledge. The jurists hold up learning’s special legal status, in which education and research are recognized in legislation and common law as copyright and patent exceptions.¹

The reasons given for pursuing an open access model of scholarly publishing, however compelling, are largely ahistorical. They beg further questions about the origins of this learned work’s distinctive economic sponsorship, cultural practices, and legal exceptions. In response, this book offers a greater historical awareness of how, and under what terms and principles, this form of knowledge has circulated in the

¹ For a summary of the case, see Peter Suber, *Open Access* (Cambridge: MIT Press, 2013); John Willinsky, *The Access Principle: The Case for Open Access to Research and Scholarship* (Cambridge: MIT Press, 2006).

West. It covers the period from Late Antiquity, when learning in the Christian West was first getting underway, to the early modern era, when our contemporary notion of intellectual property rights first became part of the law, with a recognition of learning's special standing.

Question about the basis and bearing of such distinctions have only become more pressing today, as a result of the inroads made by open access to research and scholarship. Since the turn of the twentieth century, this concept of open access has moved from the fantastical to official policy for the White House, UNESCO, European Commission, Gates Foundation, and many other organizations involved in the supporting of research.² The faculty at a good number of universities have adopted open access policies to ensure copies of their published work are publicly available; they are involved in editing, reviewing for, and publishing in the thousands of open access journals that are now operating across the disciplines.³ Even the large corporate publishing houses, such as Elsevier and Wiley-Blackwell, which each publish well over a thousand journals and once vilified open access as an irresponsible threat to research as we know it, now offer a growing suite of open access journals. Open access is widely recognized as one of the principal pillars in an internet-inspired open science movement that include open data, open instrumentation, open source software, and open educational resources.

All of this has been very encouraging for open access supporters. Although it is

² Michael Stebbins, *Expanding Public Access to the Results of Federally Funded Research*, White House Office of Science and Technology, Washington, February 22, 2013, online; *Open Access Policy Concerning UNESCO Publications*, UNESCO, Paris, July 31, 2013, online; *Open Access to Scientific Information*, European Commission, Brussels, June 30, 2015, online; *Bill and Melinda Gates Foundation Open Access Policy*, Bill and Melinda Gates Foundation, Seattle, November 20, 2014, online.

³ See *Registry of Open Access Repository Policies and Mandates*, University of Southampton, Southampton, online; *Directory of Open Access Journals* online.

also clear that the struggle between the commons and commerce is by no means resolved in the circulation of this work. The vast majority of scholarly journals remain closed to all but subscribing institutions. These subscriptions represent a ten-billion-dollar market for the journals in science, technology and medicine, alone, suggesting how much is at stake in moving to open access.⁴ And where open access is growing fastest, authors are being asked to pay the open access journals an “article processing charge” (APC) that is often in the thousands of dollars. Such a price effectively excludes (as well as offends) those working in the grant-starved humanities and social sciences, while forcing many others in the Global South to apply for fee waivers.⁵

But then journal publishers recently had their Napster moment when the Sci-Hub database began to catch headlines in 2015, with Elsevier filing a lawsuit in New York against this repository of what is now some 50 million pirated articles, operating in the dark web outside the reach of court injunctions. The neuroscientist Alexandra Elbakyan started Sci-Hub in 2011 as a frustrated graduate student in Kazakhstan, unable to obtain the research papers that she needed for her work. In 2016, four million papers a month were downloaded from Sci-Hub by readers in every corner of

⁴ Mark Ware and Michael Mabe: “The annual revenues generated from English-language STM journal publishing are estimated at about \$10 billion in 2013, (up from \$8 billion in 2008, representing a CAGR of about 4.5%), within a broader STM information publishing market worth some \$25.2 billion”; *The STM Report: An Overview of Scientific and Scholarly Journals Publishing*, 4th ed. (London: International Association of Scientific, Technical and Medical Publishers, 2015), 6. On why this market does not provide good value to these subscribers, see Theodore C. Bergstrom, P. N. Courant, R. Preston McAfee, Michael A. Williams, “Evaluating Big Deal Journal Bundles,” *Proceedings of the National Academy of Sciences* 111, no. 26 (2014): 9425-9430.

⁵ David J. Solomon and Bo-Christer Björk, “A Study of Open Access Journals Using Article Processing Charges,” *Journal of the American Society for Information Science and Technology* 63, no. 8 (2012). Add to this mix opportunists spamming academics with sham APC journals; see “FTC Charges Academic Journal Publisher OMICS Group Deceived Researchers: Complaint Alleges Company Made False Claims, Failed To Disclose Steep Publishing Fees,” Press Release, Federal Trade Commission (U.S.), August 26, 2016 online. John Bohannon submitted a deliberately flawed paper to 304 open access journals – with 121 chosen from Jeffrey Beall’s list of “predatory publishers” – of which 157 accepted the paper, including some by the major publishers such as Elsevier and SAGE; “Who’s Afraid of Peer Review,” *Science* 342, no. 6154 (2013), 60-65.

the world.⁶ “Of course, if scholarly publishers had a different business model,” Elbakyan has stated, “then perhaps this project would not be necessary.”⁷ If anything says to publishers that now is the time to find a way to move to open access, it is having virtually all of their current literature freely and illegally, available. Nor is Sci-Hub what open access advocates want either, as we recognize the need for a sustainable economic model that makes open access an integral part of scholarly publishing, with that particular road into the digital era by no means settled (nor likely to be a single road).⁸

Scholarly publishing, much like publishing in general, is undergoing radical changes, much as print thoroughly overtook and overturned the medieval manuscript culture five centuries ago (even as textual illumination in the century after the arrival of print arguably peaked in sheer artfulness). Thus, a little historical reflection is in order. There is a need for reflection on the principles and pitfalls that should guide scholarly publishing going forward.⁹ It is a time to consider how scholarly work has become a good of a different order. It thrives through the widest possible circulation, so that others can make something more of its project.

This book reviews these ideas over what is known as the Long Middle Ages in

⁶ John Bohannon, “Who's Downloading Pirated Papers? Everyone,” *Science*, 352, no. 6285 (April 28 2016): 508-512.

⁷ Alexandra Elbakyan, “Transcript and Translation of Sci-Hub Presentation,” Open Access @ UNT, University of North Texas, May 19-20, 2016. In a “Letter Addressed to Judge Robert W. Sweet from Alexandra Elbakyan re: Clarification of Details,” Timothy Gower and I are cited on how extensively this access issue is being discussed; *Elsevier v. Sci-Hub*, 1:15-cv-04282, NY Southern District (September 15, 2015).

⁸ See, for example, Salvatore Mele, Heather Morrison, Dan D'Agostino, and Sharon Dyas-Correia, “SCOAP3 and open access,” *Serials Review* 35, no. 4 (2009): 264-271.

⁹ A rare and admirable application of history lessons to today's situation is found in Jean-Claude Guéron, *In Oldenburg's Long Shadow: Librarians, Research Scientists, Publishers, and the Control of Scientific Publishing* (Washington: Association of Research Libraries, 2001).

the West, roughly from the fifth and into the eighteenth century.¹⁰ The story is told through the lives and learning of individual monks and nuns, clerics and scholars, chancellors and philanthropists. At the same time, it is as much a history of learning through institutional succession. It begins with the enclosed monastic world of late antiquity and the early Middle Ages. The book follows learning through the cathedral schools of the High Middle Ages, into the medieval universities, and on to the academies and societies of the early modern period.¹¹ These often chartered and incorporated settings provided the learned with a place to study that was more or less apart from the world. Learning moved into the life of the city over time, and into more secular forms and concerns, while retaining traces of ecclesiastical privilege and support.

During this time, the learned were developing what can be thought of, from our perspective, as concepts of *intellectual property* before there was any legal recognition of such property rights.¹² Many of the ideas about authorship and texts were inherited

¹⁰ In writing on the Long Middle Ages, Jacques Le Goff, observes that “ruptures in the strict sense, clean breaks with what went before, are seldom observed. The usual case is the more or less long, the more or less profound transformation: the turning point, the internal renaissance”; *Must We Divide History into Periods?* trans. Malcolm Debevoise (New York: Columbia University Press, 2015), 78.

¹¹ This is not to deny the contribution of nonwestern institutions of learning, such as the fifth-century Buddhist center of higher learning Nalanda Mahavihara, in what is now northeast India, which continued to educate students until its destruction at the end of the twelfth century, with a current revival of it underway as an international university; Amartya Sen, “India: The Stormy Revival of an International University,” *New York Review of Books* 62, no. 13 (2015), 69. Sen affirms the debt of the global system to the twelfth-century European emergence of the *studium* (with considerable nonwestern input discussed in this book), by defending Nalanda’s current autonomy with a reference to how “for many hundreds of years universities in Europe have become academically excellent by governments that respect their autonomy”; *ibid.*, 70.

¹² Pamela O. Long also investigates “what we now call intellectual property” in the “technical, craft and practical traditions” from antiquity to the seventeenth century, which operated up to the fifteenth century “apart from the world of books and learning”; *Openness, Secrecy, Authorship: Technical Arts and the Culture of Knowledge from Antiquity to the Renaissance* (Baltimore: Johns Hopkins University Press, 2001), 1-2.

from antiquity by the Christian West.¹³ Ancient Greek writers had a sense of authorial ownership; they accused others of plagiarism. The Romans objected to the loss of credit resulting from the theft (*furtum*) of one's literary work.¹⁴ Pliny the Elder's first-century *Natural History* advises his readers that he consulted 2,000 volumes in creating this work: "You will count as proof of my professionalism the fact that I have prefaced these books with the names of my authorities," as this, he adds, "abounds with honorable modesty."¹⁵ None of this found its way into the body of Roman law – much as plagiarism, per se, doesn't have a place in copyright law today – but that did not mean that concepts of property and propriety in relation to texts were not operating among the literary and learned. These concepts only found their way into law, we might say, when printer and bookseller had gained sufficient economic and political force in the early eighteenth century.

I refer to this book as a prehistory in the title because the term *intellectual property* did not enter the English language until the latter half of the eighteenth century (while this book concludes at the beginning of that century).¹⁶ Over the course

¹³ Harold Love points to how, following the fall of Rome and the Roman literary order, a good number of the classical analytical methods had to be reconstructed in a process that only fully emerged with fifteenth-century humanism; *Attributing Authorship: An Introduction* (Cambridge: Cambridge University Press, 2002), 14-18.

¹⁴ Scott McGill points out that plagiarism was not a crime then (or today), but a matter of stolen credit: "Plagiarism [in Rome] was understood to accomplish something for its practitioners, namely, to win them credit they did not deserve"; *Plagiarism in Latin Literature* (Cambridge: Cambridge University Press, 2012), 5. The Romans, he demonstrates, had an extra-legal sense of intellectual property, using the example of "Seneca the Younger, who notes [in the first century] that Cicero owned the content of his work as its author, while Dorus, the bookseller, only owned the material text of Cicero, over which he had the right of *usus* or usufruct"; *ibid.*, 16.

¹⁵ Pliny the Elder, *Natural History: A Selection*, trans. John F. Healy (London: Penguin, 1991), 6.

¹⁶ The anonymous first instance cited by the *Oxford English Dictionary* is from a 1769 *Monthly Review* article – "What a niggard this Doctor is of his own, and how profuse he is of other people's intellectual property" – which supports the definition of the term as "chiefly *Law* property (such as patents, trademarks, and copyright material) which is the product of invention or creativity, and does not exist in a tangible, physical form." The *OED* indicates that *copyright* was first used in the House of Lords in 1735 in relation to author rights, while Chaucer is credited with the fourteenth-century use of *patent*, referring to a royally conferred right or privilege.

of this history, which ends with the legal instantiation of intellectual property, I will demonstrate how the learned have, in various ways, treated texts in ways that foreshadow this later legislated regime for the governance of intangible goods. This includes the extent to which the learned treated texts in much the way a body of land has been treated as the quintessential instance of a *property*. The learned are, for example, continually assembling what is, in effect, a virtual registry of intellectual properties. They maintain that registry not in one office, of course, but across libraries, catalogues, commentaries, compilations, and encyclopedias. They were continually engaged as surveyors, identifying with great precision who wrote what and when, while taking exacting stock of each work's properties. If the learned did not commonly refer to a text as a *property* (let alone intellectual property), they did refer to it as a *work*. It resembles, in this sense, what is produced by a craftsman or artist to be possessed and valued.

Adding to this historical sense of a proto-intellectual-property is how the production and registry of these properties operated within explicit institutional frameworks, beginning with monasticism in this history and concluding with the intersecting worlds of university and commerce. The scholars' use of these properties is governed by learned norms, rights, and responsibilities, with evidence of this often found in accusations of misuse, misconstrual, misattribution, and forgery.¹⁷ As well, the trade in these works took place within an economic system that was largely based, across the centuries, on patronage.

¹⁷ See Anthony Grafton for examples how judgments of forgery dating back to the Renaissance – involving the “sharp sense of literary property and individuality ... [and] high level of attention to textual detail” – honed the critical skills of philological and rhetorical scholarship; *Forgers and Critics: Creativity and Duplicity in Western Scholarship* (Princeton: Princeton University Press, 1990), 78.

As I worked on this history of learning and its properties, it became clear to me that my original question about the means and rights of access to learning was only one part of the picture. Over the course of this book, I will set out how this history of working with learned texts is shaped and influenced by six properties that I identify as properties of access, accreditation, autonomy, communality, sponsorship, and use.¹⁸ Each chapter demonstrates how these properties are inherently a part of the learning underway from the medieval to early modern periods. I take these six properties to be intellectual in effect and implication. Yet I am drawing in this work on the multiple meanings of *property* associated with learning and its texts. That is, I refer to a text's intellectual qualities or properties in writing about how texts use and credit one another; I refer to how people have a property (proprietary) claim on a text, which is to say a property right of accreditation, if they are its author, editor, translator, commentator or a right of access and use, as a reader; and I refer to how a text is financed and valued within a loosely governed property system, when describing the communality, sponsorship, and autonomy of learned texts. In this way, I find that these six properties (of access, accreditation, autonomy, communality, sponsorship, and use) reflect elements of regulation and economy that suggest a prototypical intellectual property system operating within the culture of learning.

As such, my work with this history has made three things clear to me about learning's intellectual properties: First of all, the particular regard for the properties of

¹⁸ An earlier parallel to my work in this book is found in Robert K. Merton's expounding the "ethos of science" in terms of four "institutional imperatives," namely, universalism, communism, disinterestedness and organized skepticism (abbreviated CUDOS), while the properties that I identify are also very much wrapped up in institutions but with a greater focus, on my part, on the nature of learned work with texts; "Normative Structures of Science," in *The Sociology of Science: Theoretical and Empirical Investigations*, ed. Norman W. Storer (Chicago: University of Chicago Press, 1973), 267-278.

texts fostered by learning came to play a major role in the modern legal construct of intellectual property, especially in its application to published work. This is especially apparent in what is commonly regarded as the legislation that initiated the modern era of copyright, which is the Statute of Anne, passed by the British Parliament in 1710.¹⁹ The statute gives pride of place to learning. It is entitled, *An Act for the Encouragement of Learning, by Vesting the Copies of Printed Books in the Authors or Purchasers of Such Copies, During the Times Therein Mentioned*.²⁰ Printers and booksellers had much to do with the passing of this act, as we shall see, but more than a few of the act's clauses are devoted to enshrining and protecting the intellectual property rights of learning. This act influenced, in turn, the intellectual property clause introduced into the United States Constitution in 1789. Congress is empowered, by this clause, "to promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries."²¹ Learning was front and center at the birth of the current legal sense of intellectual property. This is, however, where this book concludes.

Secondly and from the book's beginning with Saint Jerome, it is clear that works of learning differ from other types of property, intellectual or otherwise. This difference is marked by the different sorts of institutional, economic, and legal arrangements afforded learning over the course of this history, as well as by the way

¹⁹ With inventions and patents, the earliest form of legal protection was granted to the architect Filippo Brunelleschi in 1421 by the council of Florence for a cargo ship design; Venice instituted a patent law, granting a ten-year monopoly, in 1474, for the building of a "new and ingenious device," as the statute reads, "of great utility and benefit to our commonwealth"; cited by Giulio Mandich, "Venetian Patents (1450-1550)," *Journal of the Patent Office Society* 30, no. 3 (1948), 176-77. Long places the origins of the patent concept within intellectual property in "late medieval craft production"; *Openness, Secrecy, Authorship*, 10.

²⁰ *The Statute of Anne*, April 10, 1710, Avalon Project, Lillian Goldman Law Library, Yale University, 2008, online.

²¹ US Const. art. 1, §8, cl. 8.

that scholars attend, above all, to what is intellectual about the properties at issue. This book presents the historical grounds for thinking of scholarly work as constituting a different order of intellectual property. A learned book has a different standing than that of a literary work or a craft secret, such as glass blowing. The development of this historical distinction is a crucial one in thinking about the rationale for open access to research and scholarship today. For while I found that the emphasis on access to learning to be but one of the properties distinguishing this form of work, the historical efforts to increase and improve access – through copying and translation, the introduction of paper and printing, the assembling of libraries, the formation of academies – were among the more constant and inventive activities of learned institutions.

A third factor running throughout this history in different forms is the extent to which the intellectual property most at issue is not access to texts. It is the use of texts. It is expected that not just the text's authors, but everyone who works with that text, is engaged in supporting and facilitating the use of the work, from the care brought to its composition, through processes of reviewing and editing, publishing and indexing, commenting and referencing. Breakthroughs, innovations, and other academic achievements often result from the brilliant use of other's text, whether by extending, combining, or fault-finding. As the modern legal structure of intellectual property is intended to provide an incentive to create works that benefit the public, so with learning the prize comes from the use that others make of a work. Where "fair use" of copyrighted materials stands today as an exception and limit to the law, it has long been different with learning. The fairness of use –involving proper crediting, as well as

enabling access – has always been valued among the learned. For them, fair use is not a limit nor an exception, while copyright may well be.

As should be clear by this point, I am using *learning* in this book in the somewhat archaic spirit of Francis Bacon’s *The Advancement of Learning* (or as the 1605 edition had it: *Of the Advancement and Proficiency of Learning, or the Partitions of Science*). Learning, in this sense, encompasses the liberal arts, scholasticism, theology, humanism, and natural philosophy. It involves the study of texts, especially as that study gives rise to further texts; it involves recording and publishing observations of the night sky, as well as the day’s weather and tides, for comparison with, and compilation of, others’ data.²² This use of *learning* has the further advantage of reconnecting the work of scholar and student, as learning today is more often ascribed to the work of students than scholars (while historically the *scholars* of the medieval university were its students).²³ And as a result of open access, more of this scholarly learning is being made available to current, future, and former students everywhere.

As noted, this was a period in which learning played a prominent part in the legal formulation of this concept. What then of learning’s place within the definition of intellectual property today? Turning to the latest edition of the lawyers’ favorite,

²² Gianna Pomata and Nancy G. Siraisi identify how the sciences and humanities in the early modern era were united in “the coupling of empiricism and erudition,” or “‘learned’ empiricism”; “Introduction” in *Historia: Empiricism and Erudition in Early Modern Europe*, eds. Gianna Pomata and Nancy G. Siraisi (Cambridge: MIT Press, 2005), 7-8. Lorraine Daston notes an early modern “collective empiricism,” in which “the library has never ceased to be a site of scientific knowledge, alongside the laboratory and the observatory”; “The Science of the Archive,” *Osiris* 27, no. 1 (2012), 162.

²³ A further interest of mine in connecting scholars and students arises out of my years as a school teacher and then a researcher in the schools, which involved, among other things, the publishing activities of elementary school students and my introducing them to the history of publishing; John Willinsky, *The New Literacy: Redefining Reading and Writing in the Schools* (New York: Routledge, 1990); John Willinsky, “To Publish and Publish and Publish,” *Language Arts*, 62, no. 6 (1985), 619-623.

Black's Law Dictionary, one finds intellectual property defined: "A category of intangible rights protecting commercially valuable products of the human intellect" and "a commercially valuable product of the human intellect, in a concrete or abstract form."²⁴ The emphasis on protecting "commercially valuable products" may well seem to put the work of learning at a disadvantage.

If learning has lost ground in legal thinking about intellectual property, it has by no means disappeared from American law or elsewhere.²⁵ In the U.S., scholars and students constantly take advantage, as noted above, of "fair use" with copyrighted material under the exemption reserved for "teaching, scholarship and research," if always applied in a qualified way and to other domains, such as criticism and news, as well.²⁶ Then there is the "academic exception" within common law, which allows faculty members to retain the copyright over their work, including research and teaching materials, rather than having it revert to their employers, which is common with other enterprises.²⁷ By the same token, the patent research exception in common law allows researchers to conduct experiments utilizing patented processes without having to license them.²⁸ The Bayh-Dole Act of 1980 enables researchers and their universities to secure patents for the results of federally funded research. Still,

²⁴ Bryan A. Garner, ed., *Black's Law Dictionary*, 8th ed. (St. Paul: West, 2004), 824.

²⁵ For an international comparison of educational allowances in copyright law, see Raquel Xalabarder, *Study on Copyright Limitations and Exceptions for Educational Activities in North America, Europe, Caucasus, Central Asia and Israel* (Geneva: World Intellectual Property Organization, 2009).

²⁶ On Fair Use in the United States, see U.S. Code 17.107: "The various purposes for which the reproduction of a particular work may be considered fair, such as criticism, comment, news reporting, teaching, scholarship, and research."

²⁷ Corynne McSherry, *Who Owns Academic Work?: Battling for Control of Intellectual Property* (Cambridge, MA: Harvard University Press, 2001), 101ff.

²⁸ On the common law patent research exemption, which has been seriously weakened in recent years, see Rebecca S. Eisenberg, "Patent swords and shields," *Science* 299, no. 5609 (2003), 1018-1019. For the "academic exception," see Chris Triggs, "Academic Freedom, Copyright and the Academic Exception," *Workplace: A Journal for Academic Labor* 13 (2005), 60-79; For a recent summary of these exemptions, including how "academics form a cognizable class," see Gideon Parchomovsky and Alex Stein, "Intellectual Property Defenses," *Columbia Law Review* 113, no. 6 (2013), 1501.

compared to where learning once stood in those initial eighteenth-century expressions of intellectual property law, it is left with a handful of legal limits and exceptions to protect its best interests. The law intended for “the encouragement of learning” and “to promote the progress of science” has been displaced by interests in, to return to *Black’s* dictionary, “protecting commercially valuable products of the human intellect.”

Just as learning’s place within the law has been diminished, so intellectual property has little enough standing in the education of the young. The topic of intellectual property rarely comes up in classrooms otherwise devoted to literature, history, social studies, or economics, despite it being the means by which the expression of ideas often makes its way to the bank, ends up in court, and finds its way into the press. If intellectual property issues do arise – in matters of making copies, say – it is likely to be dismissed by educators as other people’s *business*, such as publishers, which is to say, not part of education.

This book makes it clear that dealing in intellectual property has long been the craft and trade of educators and scholars. For my part, this work has given me a sense that, insofar as we care about that craft, we have reason enough to teach the young about intellectual property in principle and practice. It is in education’s interest to have students know something about the legal and economic standing of intellectual property. It could inspire them to think more about their own media production and consumption of others’ property; to participate in new licensing models that provide advantages for their own creative and cultural work; and, perhaps above all, to be that much better prepared for the knowledge-based economy into which they are

graduating.²⁹ So equipped, the young might be that much more likely to lend their support, later in life, to those educators and others advocating for the protections and distinctions that have traditionally been afforded learning (as reviewed in this book) and that are vital to continuing its contribution to the world at large.

While I would not underestimate the challenges of drawing applicable lessons from historical instances, I am assuming the value of reflecting on the historical principles and patterns of scholarly publishing as we go bravely into this digital era. The lack of touchstones and precepts in this regard became strikingly apparent not long ago with the tragic outcome of the arrest of open access advocate Aaron Swartz. On January 10, 2010, this young internet activist and Harvard Fellow was charged with wire and computer fraud violations for allegedly entering an unlocked MIT wiring closet and illegally downloading to his laptop roughly 4.8 million scholarly journal articles from the JSTOR database of older journal issues.³⁰ U.S. Attorney Carmen Ortiz explained Swartz's indictment, for which he was facing up to thirty-five years in prison and a million dollars in fines, by stating that "stealing is stealing, whether you use a computer command or a crowbar, and whether you take documents, data or dollars. It is equally harmful to the victim, whether you sell what you have stolen or give it away."³¹

This one-size-fits-all approach to property is the very point that Swartz was

²⁹ See the Creative Commons approach to copyright, originated by Lawrence Lessig, "The Creative Commons," *Florida Law Review* 55 (2003), 763-778. Or Yochai Benkler's forms of "nonmarket and nonproprietary production" taking place within "the networked information economy," which amount, for him, to a post-Adam-Smith "wealth of networks"; *The Wealth of Networks: How Social Production Transforms Markets and Freedom* (New Haven: Yale University Press, 2006), 2.

³⁰ *JSTOR Evidence in United States vs. Aaron Swartz* (New York: JSTOR, July 30, 2013), online.

³¹ John Schwartz, "Internet Activist, a Creator of RSS, Is Dead at 26, Apparently a Suicide," *New York Times*, January 12, 2014. See Brian Knappenberger's film *The Internet's Own Boy: The Story of Aaron Swartz* (2014), available on YouTube.

challenging, I think it fair to say, with this act of civil disobedience. The “victim,” in this crime, namely JSTOR, allowed that there were property distinctions to be made with learning. After initially alerting MIT to the massive downloads, which were explicitly forbidden by its contract with university libraries, JSTOR declined to press charges, and pointed, in its statement on the affair, to its efforts to “offer deeply discounted or free access in furtherance of our mission.”³² The U.S. Attorney’s office persisted in the case. On January 11, 2013, two years after his arrest and before the case went to trial, Aaron Swartz, at the age of twenty-six, committed suicide.

The legal grounds for thinking that learned works constitute a different order of intellectual property were only strengthened a year after Aaron Swartz’s death, when the United States Congress passed the Consolidated Appropriations Act, 2014 on January 17th of that year. Deep within its six-hundred pages is a requirement that those federal agencies with research and development expenditures over \$100 million annually, develop a *public access policy* for any research resulting from their funding. This policy will ensure that the public will have “free online public access to such final peer-reviewed manuscripts or published versions within 12 months after the official publication date.”³³ This new measure recognizes that the public sponsorship of research brings into play a different set of rights and responsibilities. Well, not quite. The research is also allowed to remain a private good. The new law only requires public access to the “final peer-reviewed manuscripts” (rather than the published version), with publishers allowed to impose up to a one-year embargo on such access following publication. It might well seem as if the big corporate publishers of this

³² *JSTOR Evidence*.

³³ Consolidated Appropriations Act, 2014, H. R. 3547 Sec. 527, 412-12.

research had successfully lobbied to ensure that their commercial property rights trump learning's interests in communality, access, and rights of use, leaving the public with what might well seem a degraded version of this intellectual property.³⁴

It is another indication of a fraying of the *social contract* between university and world.³⁵ The sciences, in particular, have been pushed in recent years to become centers of “campus capitalism,” involving the “commodification of academic research” in “the knowledge factory,” to borrow from the titles of three books on the current crisis in higher education.³⁶ Not long ago, the former President of the United States, Barack Obama, cast the campus hook-up with capitalism as reflecting the spirit of the country: “And that’s what America is all about,” Obama declared on January 15, 2014 at North Carolina State University in speaking about his National Network for Manufacturing Innovation: “We have always been about research, innovation, and then commercializing that research and innovation so that everybody can benefit.”³⁷

Is the university to be no more than a network node in manufacturing innovation? Does commercialization alone ensure that everyone benefits from the research conducted by universities? The support for industry-driven, patentable

³⁴ John Willinsky, “The Publisher's Pushback against NIH's Public Access Policy and Scholarly Publishing Sustainability,” *PLoS Biology* 7(1):e30 (2009).

³⁵ On this contractual theme, see David H. Guston and Kenneth Keniston, “Introduction: The Social Contract for Science,” in *Fragile Contract: University Science and the Federal Government*, eds. David H. Guston and Kenneth Keniston (Cambridge: MIT Press, 1994), 13. David B. Downing considers a knowledge contract to be “the set of implicit and explicit obligations that justify both the epistemological and commercial uses of higher education”; *The Knowledge Contract: Politics and Paradigms in the Academic Workplace* (Lincoln: University of Nebraska Press, 2005), 5.

³⁶ Daniel S. Greenberg, *Science for Sale: The Perils, Rewards, and Delusions of Campus Capitalism* (Chicago: University of Chicago Press, 2007); Hans Radder, *The Commodification of Academic Research: Science and the Modern University* (Pittsburgh: University of Pittsburgh Press, 2010); and Stanley Aronowitz, *The Knowledge Factory* (Boston: Beacon, 2000). See also Roger L. Geiger, *Knowledge and Money: Research Universities and the Paradox of the Marketplace* (Stanford: Stanford University Press, 2004).

³⁷ Barack Obama, *Remarks by the President on the National Network for Manufacturing Innovation* (Raleigh: North Carolina State University, January 15, 2014).

research reflects a “market logic,” according to Elizabeth Popp Berman, a sociologist at the State University of New York at Albany, in which the university is an “economic engine” with “science as an economic input.”³⁸ Although I am presenting a history of learned texts rather than patentable inventions, today’s intellectual property chase on campuses, spurred by the Bayh-Dole Act in the U.S., is increasingly defining the value of higher education.³⁹ While marketing a patent has a role to play in ensuring public access, the patent chase on university campuses – Gatorade, Google, and other success stories notwithstanding – has led to more financial drain than gain.⁴⁰

Yet these complaints about the university’s loss of distinction from the commercial sector are not limited to the sciences. The humanities, which play a major role in this prehistory, are presently experiencing the creep of market logic. “Thirsty for national profit, nations, and their systems of education, are heedlessly discarding skills that are needed to keep democracies alive,” sharply observes Martha Nussbaum, Ernst Freund Distinguished Service Professor of Law and Ethics at the University of

³⁸ Elizabeth Popp Berman, *Creating the Market University* (Princeton: Princeton University Press, 2012), 173, 175. Berman: “The change in academic science can be seen as resulting from the economic rationalization of political life as much as it resulted from the growing influence of neoliberalism”; *ibid.*, 175. Sheila Slaughter outlines the extent to which there has been a “shift away from a public good academic knowledge/learning regime to an academic capitalist knowledge/learning regime” that increasingly links “state agencies, corporations and universities”; “Rethorizing Academic Capital,” in *Academic Capitalism in the Age of Globalization*, eds. Brendan Cantwell and Ilkka Kauppinen (Baltimore: Johns Hopkins University Press, 2014), 26, 12.

³⁹ Janice M. Mueller holds the Bayh-Dole Act responsible for the “patent-centric environment of biotechnological and biomedical research and development”; “No Dilettante Affair: Rethinking the Experimental Use Exception to Patent Infringement for Biomedical Research Tools,” *Washington Law Review* 76, no. 4 (2001), 5. According to Mueller, the “experimental use” exemption for patents is lost to many labs because of their interest in commercialization; *ibid.*

⁴⁰ On the hidden cost of the patent chase to the academic mission, see Jacob H. Rooksby and Brian Pusser, “Learning to Litigate: University Patents in the Knowledge Economy,” in *Academic Capitalism in the Age of Globalization*, 74-93. As well, most university patents go unlicensed, with some picked up by “patent trolls,” whose accumulate-to-sue model only deters innovation; *AUTM Licensing Activity Survey Highlights* (Deerfield: Association of University Technology Managers, 2012); Heidi Ledford, “Universities Struggle to Make Patents Pay,” *Nature* 501, no. 7468 (2013).

Chicago.⁴¹ Nussbaum forcefully counters that “democracy needs the humanities” far more than it needs a youth trained for the marketplace.⁴² Yet she may be overreaching with her claim that the humanities provide democracy with “responsible citizens” who possess “the ability to assess historical evidence, to use and think critically about economic principles, to assess accounts of social justice, to speak a foreign language, to appreciate the complexities of the major religions.”⁴³ The history that I present here does not attest to learning’s inherently democratic values and practice. It makes clear that learned men contributed to the exclusion of women from higher education, just as they made their peace with European imperialism, finding advantage in the bounty of conquest and the profits of slavery.⁴⁴

The critical, reflective questioning, to which Nussbaum refers, when it did happen historically, was often the work of a solitary voice, rather than a field of study. Think of Bartolomé de las Casas, the fifteenth-century Dominican, historian, and outspoken opponent of imperialism, documenting in protest “the devastation and depopulation of the land” brought on by the Spanish Conquest of the Indies.⁴⁵ More often – and again the example of Locke is instructive (with more on this in the final chapter) – the learned conducted their studies alongside the forces of imperialism, providing it with a civilizing veneer, while leaving it to others to find elements in their work that later served abolitionist and anti-colonial causes. Through all of it, whether

⁴¹ Martha Nussbaum, *Not for Profit: Why Democracy Needs the Humanities* (Princeton: Princeton University Press, 2010), 3.

⁴² *Ibid.*, 2.

⁴³ *Ibid.*

⁴⁴ On the educational legacy of imperialism, see, for example, my *Learning to Divide the World: Education at Empire’s End* (Minneapolis: University of Minnesota Press, 1996) and on the role of slavery in the development of American higher education, see Craig Steven Wilder, *Ebony and Ivy: Race, Slavery, and the Troubled History of America’s Universities* (New York: Bloomsbury, 2014).

⁴⁵ Bartolomé de las Casas, *A Short Account of the Destruction of the Indies*, trans. Nigel Griffin (London: Penguin, 2004), 14.

we consider the current invasion of market logic or the long-term failure to speak truth to power, those engaged in this learning are seeking to establish a place for this form of work, a place based on what distinguishes the research and scholarship of the academy from other forms of work. The distinctions form part of a historical legacy that those who are seeking to change the public standing of this academic institution and its work today might well want to explore and exploit.

This book considers both the heroic and dispiriting instances on the part of those who moved this learning into the world; it highlights the misogynist and ethnocentric shortcomings, as well as the efforts to redress these failings. It is episodic rather than comprehensive, as I have selected nuns, monks, schoolmen, masters and scholars for what they demonstrate or have to say about the making of books as the means and ends of learning. Thus, this book is not so much about their best ideas as their manner of working with their own and others' ideas through a literature that constitutes the state of knowing.

This history returns to familiar figures, whether Augustine, Abelard, or Aquinas (among the A's) in familiar settings of monastery, cathedral school, and medieval university. But I am after something that I believe is less well known about these figures, which is what they made of the composing, production, and circulation of learned works. And I augment their stories with less-familiar figures, such as Alcuin, Averroes, and Avicenna (again the A-team), who should play a more prominent part, I believe, in understanding what the West has made of scholarly inquiry and pursuits. The work of these overly and less familiar figures bears on what become the concept of intellectual property. They operated within a system of rights and responsibilities

involving texts and institutions in an evolving (easily breached) social contract with the larger world. We are not done with this legacy, much as we are still struggling to define the standing of research and scholarship as a public good and a force for change. It is part of a history that is often lost to sight within the workings of academic culture today, for all the medieval trappings that are ceremoniously retained. This history reflects an ongoing struggle over the values of learning that took many different forms, and that can, I believe, inform what we may well want for the university's social contract today.

This history offers much on the persistence and value of institutional autonomy, as well as on its sponsorship by an external world that valued the distinctions. I refer to this domain as the commonwealth of learning, which I take from Locke. His influential theory of property in the *Two Treatises* was, as I noted, a starting point in my thinking about this project, and it occupies the penultimate chapter of this book, just as his political activism around intellectual property legislation forms the basis of the concluding chapter. And while the *Two Treatises* does not deal substantively with anything resembling intellectual property, Locke makes oblique reference to it in the opening of *An Essay Concerning Human Understanding* with his reference to the commonwealth of learning.

In the book's "Epistle to the Reader," he famously writes (at least among Locke scholars) of how "the Commonwealth of Learning is not without its Master-Builders, whose mighty Designs, in advancing the Sciences, will leave lasting Monuments to the Admiration of Posterity."⁴⁶ The "commonwealth of learning" is a

⁴⁶ John Locke, *An Essay Concerning Human Understanding*, ed. Peter H. Nidditch (Oxford: Oxford University Press, 1975), 9.

phrase he uses elsewhere, and is not original to him, with the general idea more commonly referred to as the republic of letters.⁴⁷ Nonetheless, the commonwealth of learning offers a powerful, guiding image for this book. It suggests a self-governing state that the learned have constituted for themselves, with their learning being the wealth held in common. Locke had spent his youth in the Commonwealth of England initiated by Oliver Cromwell in 1649 and which his father had supported. Since the sixteenth century, a commonwealth of the people has been invoked in calls for justice and self-determination against arbitrary uses of power. It has been a way of positing an alternative political and economic structure organized around the collective interests of its members, whether in resisting the agrarian enclosure measures in early modern England or, in this case, working against an unwarranted enclosure of learning.⁴⁸

⁴⁷ Locke also uses the “commonwealth of learning” in an unpublished critique of John Norris, complaining of those who “set themselves up as Dictators in ye Commonwealth of learning”; cited by Charlotte Johnston, “Locke’s Examination of Malebranche and John Norris,” *Journal of the History of Ideas* 19, no. 4 (1958), 554. Charles D. Tarlton notes of Locke that “on 7 August, a little more than two weeks before the *Two Treatises* was licensed for publication, he wrote to Philippus van Limbroch that ‘the commonwealth of learning here is taking a complete holiday; we have all become politicians’”; “‘The Rulers Now on Earth’: Locke’s *Two Treatises* and the Revolution of 1688,” *Historical Journal* 28, no. 2 (1985): 294. The expression *commonwealth of learning* was common enough in Locke’s day; see John Aubrey, *Brief Lives*, ed. Richard Barber (Suffolk: Boydell, 1982), 162, 315; William Temple cited in George Williamson, “The Restoration Revolt against Enthusiasm,” *Studies in Philology* 30, no. 4 (1933), 582; Samuel Hartlib, cited in R. H. Syfret, “The Origins of the Royal Society,” *Notes and Records of the Royal Society of London* 5, no. 2 (1948), 96; Edmund Halley speaks of Newton’s *Principia* being “more serviceable to the Commonwealth of Learning” for the care taken by the Publisher (himself) in an advertisement in the *Philosophical Transactions*, 16 (1687) 297; see Henry P. Macomber, “A Comparison of the Variations and Errors in Copies of the First Edition of Newton’s *Principia*, 1687,” *Isis* 42, no. 3 (1951), 231.

⁴⁸ Christopher Kendrick, *Utopia, Carnival, and Commonwealth in Renaissance* (Toronto: University of Toronto Press, 2004), 113–21. Anthony Grafton locates the origins of the Republic of Letters in a similar sixteenth-century framework of “moral duty,” “civil code,” “intellectual market,” “patrons,” and “free communication of ideas”; “A Sketch Map of a Lost Continent: The Republic of Letters,” in *Worlds Made by Words: Scholarship and Community in the Modern West* (Cambridge: Harvard University Press, 2009), 22–27. Adding to this sense of quasi-legal structure, Anne Goldgar writes of its “ethos of service” in the Republic of Letters (1680–1750), in which “scholars relied on the ‘rights of the Republic of Letters’ to ask the services they required”; *Impolite Learning: Conduct and Community in the Republic of Letters, 1680–1750* (New Haven: Yale University Press, 1995), 51. On the enclosure parallels between land and the intellectual property, see James Boyle, *The Public Domain: Enclosing the Commons of the Mind*. (Yale: New Haven, 2008).

The commonwealth of learning is about the un-constituted governance and operating norms of what is, at one level, no more than a trade in works of learning, including, on rare occasions, the lasting Monuments of the Master Builders, as Locke puts it. In what follows, I will show how this commonwealth has worked out what is, in effect, an elaborate intellectual property system entailing the rights and responsibilities associated with the production and circulation of learned works. As such, this system involves the distinctive practices and norms around what I am framing as the access, accreditation, autonomy, communality, sponsorship, and use of such works.

No less relevant to this history is how Locke moves in the “Epistle” to the sort of labor that constitutes learning’s commonwealth, which involves not only building monuments but improving access to knowledge:

But every one must not hope to be a *Boyle*, or a *Sydenham*; and in an Age that produces such Masters, as the Great – *Huygenius*, and the incomparable Mr. *Newton*, with some other of that Strain; ‘tis Ambition enough to be employed as an Under-Laborer in clearing Ground a little, and removing some of the Rubbish that lies in the way to Knowledge.⁴⁹

The Under-Laborer here, putting his back into clearing the ground to knowledge, is our humble Locke. The efforts that are needed to improve access to learning are among the principal duties and pleasures of life in this commonwealth.

This book of mine, to dare a shameless comparison, reflects a similar desire.

⁴⁹ Locke, *Essay*, 9-10.

My wish is to speed the plow and clear the path to learning by recounting its past. Some rubbish has come to obscure long-standing historical distinctions that have set the lasting intellectual properties of learning apart from the fine properties of Apple and Disney, as well as from those of Margaret Atwood and Toni Morrison. 'Tis ambition enough, indeed, as Locke has it, to bring these historic distinctions to the fore. In the *Essay*, Locke clears the way by working through the properties of knowledge; here, I bring to the fore the practices and distinctions that have long constituted the intellectual properties of learning's commonwealth.