

The Properties of Locke's Commonwealth of Learning

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Discusses John Locke's theory of property in terms of intellectual property within the "commonwealth of learning" as a special domain of legal rights and ethical responsibilities by focusing on the open access movement in scholarly publishing and the standardized achievement testing movement in the schools. In the case of open access publishing, Locke's starting point of a world held in common speaks to how Internet publishing opportunities enable a new level of contribution to the commonwealth of learning with extended access to scholars and public, while also making it clear how the current emphasis on testing in the schools detracts from the value for students of producing intellectual properties beyond test scores.

My work over the last few years involves two aspects of *intellectual property* that currently have a critical bearing, I believe, on the future of education policies. The first concerns the intellectual property produced by faculty members in universities, while the second invokes the intellectual property that students in schools do not get a chance to produce. The link between what is amiss in these two domains can be found in John Locke's political theory of property, a theory which can serve, I will argue, as a way of thinking about how intellectual properties should operate within educational settings.

Let me begin with the current state of *access* to research and scholarship. There are encouraging signs that the doors to this vast body of work are slowly beginning to open to a larger world, with the journal leading the way. The Directory of Open Access Journals now lists more than 2,000 titles that makes their contents free to readers, while among research libraries, some 500 open access institutional repositories are being used by faculty members, albeit in very small numbers, to post the final versions of their published papers, with the vast majority of publishers now permitting this form of self-archiving.¹ If only a smidgen of the scholarly material currently being produced is *open access* at this point – with perhaps 15-20 percent of research articles made freely available by journals and archives – this development over the last decade speaks to the potential for a radical change in the accessibility and circulation of this scholarly work. As faculty members come to realize the new possibilities – as well as the ensuing rights and responsibilities – for making their work globally and freely available, it will alter the educational landscape, much as the miner, mutual-improvement, and other working-class libraries, followed by the public library movement, did in the nineteenth century (Willinsky 2006b).

However, what is particularly frustrating about the relatively slow embrace of open access among faculty members is that the major publishers, such as Elsevier, Springer, Sage, Taylor and Francis, continue to raise their journal subscription prices, even as they may permit authors to archive published pieces in open access repositories. So, the valiant efforts to extend access to this work are largely countered by a continuing interests in protecting revenue streams among corporate publishers and scholarly societies alike. Research libraries, as a result, are finding it harder and harder to provide faculty and students with access to anything but a declining proportion of what is, after

¹ For a listing of free journals, see the Directory of Open Access Journals, which is run by the University of Lund (<http://doaj.org>), and, for a listing of publisher policies – with 75 percent of the publishers permitting some form of self-archiving – see SHERPA (<http://www.sherpa.ac.uk>).

all, a growing body of literature. This brings me to the nub of the problem with the intellectual property wrapped up in journal publishing today. With the move from print to electronic publishing, the potential increase in access has yet to be realized and until it is, the standing of this work as a *public good* is being distorted and diminished.² This paper is but one modest attempt to ensure that this distortion is temporary and short-lived, as I attempt to convince the natural owners of this intellectual property to realize where their own best interests lie. It will mean, among other things, overcoming the rather cynical idea that, as things now stand, being published in the right journals is the whole of what scholarly work is about. End of story. If that is to be the case then surely the value of this intellectual property is unnecessarily reduced.

While access to knowledge may be a matter of *educational policy* only in its broadest sense, the second and related aspect of intellectual property that I address in this paper involves the far more traditional policy issue of *educational accountability*. What has become clear to me, through this work on “open access” to research, is how students gain an entirely inadequate view of intellectual property in the course of their work in school. The increasing policy emphasis on the measurement of student and school achievement means that students have fewer opportunities to see how their learning and work relate to the production of intellectual properties, as this work has no value in itself, except as it prepares one for achievement tests. Which is to say that the students’ early experiences of intellectual property is no less distorted and reductive than that of article-counting faculty members. The current situation of intellectual property in these educational settings is preventing both school students and university faculty from realizing what the development of intellectual property, in the pursuit of learning, can contribute to the greater public good and to the place of learning and knowledge with a democratic society.

In trying to make sense of what I see as current and continuing distortions in intellectual property practices in educational settings, I have chosen to return to property’s great philosopher, John Locke. Although Locke did not address intellectual property issues directly in his work (before the age of copyright), no one has done more to make property rights central to the development of civil society and democratic governance than this intellectual patron saint of both England’s Glorious Revolution of 1688, as well as the American revolution nearly a century later.³ You may recall from history classes taken some time ago, that in the seventeenth century, Locke, along with Newton, led the way for the English Enlightenment. Locke was to provide as firm a basis as anyone imagine for the closely related growth of the empirical sciences, the rise of

² The classic economic instance of a “public good” is the lighthouse, where the benefits can be shared equally without a loss to anyone user of the guiding light, in what economists refer to as non-rivalry and non-excludability conditions.

³ On some of the contention around Locke’s influence on Jefferson on this issue of property, which is undeniable at some level, and on Jefferson’s movement beyond Locke, see David Post (1986) and on colonial America, see Barbara Arneil (1996). Dunn, for one, holds that Locke’s ideas on labor were a source of colonial injustice: “In what was probably the only sustained application of Locke’s theory of property to American circumstances, the moral dignity of labor was deployed to give powerful embellishment to the expropriation of the Indians by the laborious and God fearing people of New England” (p. 72). My assumption is that Locke’s work is one way of returning to the making of liberal democracies as we continue to re-interrupt rather invent anew that form of thinking, committed as it was in principle to liberty and equality

industrial capitalism, and the gradual unfurling of democratic government. These three themes turn out to have a good deal to do with the educational implications of intellectual property rights, within the very particular domain that Locke identified as the “commonwealth of learning” (1959, p. 14).

It is not that I imagine Locke’s *theory of property* holds the secret to encouraging faculty members to upload copies of their published journal articles to local archives. Nor is that something has gone wrong in Locke’s property program, which was to form the operating system for Western capitalist democracies, and which we now need to de-bug and re-program. Rather, Locke managed to find a way, with pen in hand, to advance the formulation of early modern conception of property and rights in the name of natural law and God’s revelation. On the basis of such thinking, even if what was meant by property was never entirely clear, you could underwrite an industrial revolution, launch an empire, and found a nation.⁴ Much as the U. S. Supreme Court returns to those original precepts, whether in a literalist or interpretive manner, in dealing with difficult cases today, I venture back to Locke, as a way forward to the future of educational policies that will touch on the status of intellectual property within the commonwealth of learning.⁵

Locke’s Theory of Property

Locke published the *Two Treatises of Government* in 1689, shortly after returning to England, in the wake of William of Orange’s defeat of James II (arriving on the same ship that brought Williams wife, Mary). Locke had spent six years in political exile in Holland, having had fled England in 1683, not long after attending what proved to be the country’s last official book burning. It took place at what is now Bodleian Quadrangle at the University of Oxford, and included a number of titles which Locke himself apparently had on his shelves at Christ Church, where he held a Studentship in medicine (Laslett, 1967, p. 24). In many ways, Locke’s rethinking of political power – “and all this only for the Public Good” (§3) – grew out of his living through a half-a-century of English revolutionary turmoil.⁶ He had lived through the establishment and collapse of Cromwell’s republic, the regicide of Charles I, the pamphlet wars of radical political proposals from the Levellers (seeking to move the franchise beyond the propertied classes), Diggers, Ranters, and others, the displacement and restoration of a national church, and on the list goes on (Hill, 1972). The publication of Locke’s major works – the *Two Treatises* were followed the next year by the *Essay on Human Understanding* in 1690 – came at the end of that revolutionary period, as Locke did his share in establishing a firm and stable basis for forestalling a return of an absolute monarchy – “Absolute,

⁴ “One of the most vexing questions in political theory,” is how Andrew Hacker approaches what Locke meant by *property* (1961, p. 250).

⁵ In his work on Locke and Hobbes, C. B. Macpherson speaks of a need to return to the “fundamental political principles of the seventeenth century” – such as “the equal moral worth of every human being” – which may seem solid but have, in modern times, “cracked and tilted” (1962, p. 2). Macpherson is particularly concerned with the continuing dominance of a “possessive individualism,” also an inheritance of that earlier era, which conceives of “the individual as essentially the proprietor of his own person or capacities, owing nothing to the society for them” (p. 3). Of some relevance for this study is his hope is that “the problems raised by possessive individualism have shrunk: they can perhaps now be brought into manageable proportions” (p. 277).

⁶ All quotations from Locke that include the paragraph number (§) are from the second treatise of the *Two Treatises of Government* in Peter Laslett’s standard edition (1967).

Arbitrary, Despotical Power,” in his words (§24) – and advancing the cause of what we now think of as liberal democracy.⁷

A World Held in Common: The second treatise is entitled “An Essay Concerning the True Original, Extent, and End of Civil Government.” The fifth chapter, “Of Property,” opens by establishing that his argument will draw on the compelling authority of both natural reason and revealed truth, sources which still worked in close conjunction at the time:

Whether we consider natural *Reason*, which tells us, that Men, being once born, have a right to their Preservation, and consequently to Meat and Drink, and such other things as Nature afford for their Subsistence; Or *Revelation*, which gives use an account of those Grants God made of the World to *Adam*, and to *Noah* and his sons, ‘tis very clear, that God, as King *David* says, *Psal. CXV. Xvj. has given the Earth to the Children of Men*, given it to Mankind in common. (§25).⁸

Reason and revelation both speak, for Locke, to a world originally held in common, accessible to all by virtue of “Man being born... with a Title to perfect Freedom” (§ 87). Locke treats these rights as human properties, that is, to which each person has “Title” (as “Our Bodies: Our Properties” might have been Locke’s T-shirt slogan). This basic right becomes the basis for the subsequent civilization of the world. Locke resists the opposition between commons and property. Property begins with very right to self-preservation, a necessary part of a world held in common.

Locke illustrates the interdependence of property and commons through what might be called *anthropological projection*. That is, he draw on popular examples of seventeenth-century understandings of the aboriginal peoples of the Americas. For Locke, as for many thinkers during that time, “in the beginning all the World was *America*” (§49). The exploits of European imperialism allowed writers such as Locke, not to mention Rousseau, to pull back the veil on the past and travel back to the origins of humankind: “The Fruit, or Venison, which nourishes the wild *Indian*, who knows no Inclosure, and is still a Tenant in common, must be his, i.e., a part of him, that another can no longer have any right to it, before it can do him any good for the support of his life” (§26). The right of self-preservation requires one to take from the commons, which could in the Americas before the European invasion be done without disturbing its pristine state or interfering with others rights in what is thus, in Locke’s terms, a pre-political and pre-civil state. More than that, property begins as a right involving human liberty and equality.

A Right to One’s Person and Labor: From this idyllic rendering of aboriginal people cooking venison over an open fire in the forest-held-in-common it was short step to realize that “Every Man has a *Property* in his own *Person*” (§27).⁹ And from this, a

⁷ Locke: “*The Liberty of Man in Society*, is to be under no other Legislative Power, but that established by consent, in the Common-wealth” (§22); “When any number of Men have so *consented to make one Community* or Government, they are presently incorporated, and make *one Body Politick*, wherein the *Majority* have a Right to act and conclude the rest” (§95).

⁸ Locke’s setting up of reason and revelation as a choice (“whether we consider...”) has given rise to speculation of Locke as a closet atheist, which one recent critic, X, is quick to dismiss.

⁹ This principle was originally expounded by the Levellers in the 1640’s during the English Revolution who saw it as ground for extending civil and religious rights to everyone, and the enfranchisement to all

second principle emerged, namely that “the *Labor* of his Body, and the *Work* of his hands, we may say, are properly his” (§27). This ownership over one’s own body and over the fruits of one’s labor represent a right bestowed with birth and a right earned with exertion. It was a more profound change to thinking about property than Locke had been able to fully realize in his own life, given his involvement two decades earlier, when he was 37 years old and appointed as a secretary for the proprietors of the slave-owning colony of Carolina, which including writing its constitution in 1669.¹⁰ It is no more or less to say that as Locke inspired Thomas Jefferson’s phrase, “that all men are created equal,” in the U.S. Declaration of Independence, although it took a further 90 years to put an end to slavery in that country, which has, as of yet, to fully realize the consequences of those words, even as it serves as a reminder of the goals that elude us. So, it may well be worth pausing over Locke’s formulation of property a rooted in a human right that is vested in each and every person. It is surely no less powerful a conception of property today, as we continue to see the struggle for this granting of primary ownership over one’s self and labor in a process of constant reinterpretation and belabored realization in the field of human rights.

Locke’s principle that “*Labor, in the Beginning, gave a Right of Property*” (§45) began for humankind with a relatively effortless “gathering of Acorns, or other Fruits of the Earth” (§31). But such foraging – think of the contemporary expression, “the low-hanging fruit” – was soon superseded in Locke’s scheme by the stronger property claims that came of more industrious efforts. For if God gave the world in common, “it can not be supposed he meant it should always remain common and uncultivated”; rather “he gave it the use of the Industrious and Rational” (§34): “God, when he gave the World in common to all Mankind, commanded Man also to labor (§32). For as “Man Tills, Plants, Improves, Cultivates, and can use the Product of, so much is his *Property*” (§32). In Locke’s political arithmetic – in the spirit of what Max Weber identified as the Protestant work ethic (1958) – the enclosed and cultivated acre of land produced “ten times more” than the acre “lyeing wast in common” (§37). Labor had the property of giving something back, as this working of the land “does not lessen but increase the common stock of mankind” (§37).

The vigorous working of the land became a source of strengthened and inequitable property rights.¹¹ These rights continued to co-exist with the commons:

except servants and alms-takers, who were regarded as dependent on others (Macpherson, 1962, p. 144). Macpherson holds that Locke’s particularly original contribution to political theory is the principle that follows from this, on the individual’s ownership of their own labor (p. 220). On Locke’s own failure to follow on the radical democratic enfranchisement principle of the Levellers, see Ellen Meiksins Woods (1999).

¹⁰ The chapter before “Of Property,” in the second treatise is “Of Slavery.” In it, Locke creates the possibility that someone has, “by his fault, forfeited his own Life, by some Act deserves Death” (§23) and thus given up their most basic right to liberty, in light of which Peter Laslett, the great modern editor of the *Two Treatises*, concludes that Locke must have held that the African slaves taken by the Royal African Company, in Laslett’s words, “were captives taken in a just war, who had forfeited their lives” (p. 302 n §24).

¹¹ Locke turns the productivity claim on property against the American aboriginal, who served his earlier argument so well, as if to strengthen the European sense of redeeming, as well as civilizing, the Americas: “For I aske whether in the wild woods and uncultivated wast of America left to Nature, without any improvement, tillage or husbandry, a thousand acres will yeild the needy and wretched inhabitants as many

“There was never the less left for others because of his inclosure for himself” (§33). And prior to the development of civil government, the only check on this productive assertion of ownership was the natural law prohibition against *waste*. The property owner should not stake a claim to more property than can be productively used, for “if the Fruit rotted... he offended against the common law of Nature” (§37). Locke is speaking here still of a time “before the desire of having more than Men needed, had altered the intrinsic value of things” (§37).¹²

Insert Figure 1 about here

The Origins of Inequality: Still, in his day, no less than in ours, to walk down the street or to look out over the country-side is to see that the distribution of property is so obviously a source of inequality. Locke had to find within history a conception of property that would not entirely betray the original state of a world held in common. He had, at the same time, to come up with an idea of property consistent with the rising property rights of the bourgeoisie and the colonial powers. In this brief chapter on property in the *Two Treatises*, Locke makes it clear how it can happen that, in a world held in common amid an equally distributed birth-right to property, “men might come to have a *property* in several parts of that God gave to Mankind in common” (§25).

Locke build his argument on behalf of considerable differences in the property holdings among people in two ways, first by giving due weight to the productive value of labor, and then by allowing for the authority of majority consent to establish alternative economic arrangements. Yet it is important to note that in what follows, Locke keeps the collective principle of a world held in common in balance with notions of private property, and he does so in ways that can help us make new sense in our efforts to sustain the “commonwealth of learning.” He repeatedly reminds his readers of how a civil society emerged out of a common state, or as he plainly puts it, “no body has originally a private Dominion, exclusive of the rest of mankind” (§26). Yet if the world was originally held in common, this collective stake and common right was not something that was lost in the march of time. Locke holds that, even as “those who are counted the Civiliz’d part of Mankind, who have made and multiplied positive Laws to determine Property, this original Law of Nature for the *beginning of Property*, in what was before common, still takes place” (§30).

What changes things as people move from a nomadic, bucolic form of life to the patterns and structures of a civil society is “the invention of money” (§36). Money then becomes critical to the manipulation and accumulation of property. “By tacitly agreeing

conveniencies of life as ten acres of equally fertile land doe in Devonshire where they are well cultivated?” (§37).

¹² Rebecca P. Judge argues that this proscription against waste “imposes a sustainability constraint on extraction from the common” which has been ignored by “neo-Lockeans” would turn “the commons into an open access resource” for exploiting without concern (2002, pp. 332, 334). Contemporary laws protecting historical properties and urban trees represent measures meant to balance private property prerogatives and the public right of the commons (Brown, 2006). My argument, based on a different point of reference for “open access” – is that there what is now being wasted within the learning commons is the opportunity, demonstrably sustainable judging by the thousands of open access instances now extant, to greatly increase access to there resources in ways that would improve the commons, as it improve the opportunities to participate in it.

in the use of Money,” Locke holds, we “have agreed to disproportionate and unequal Possession of the Earth” (§51). After all, in the accumulation of money, waste is not an issue: It “may be hoarded up without injury to any one, these metals not spoiling or decaying” (§51). The introduction of money marks the crossing of a political line as it only takes place, as Locke sees it, with “the tacit Agreement of Men to put value on it [Land], [which] introduced (by Consent) larger Possessions, and a Right to them” (§36). By positing that money operates through agreement and consent, however indirectly, Locke situates capitalism within democracy’s compass. This focus on consent preserves God-given rights to liberty and equality, even as imbues communities “with the Power to Act as one Body, which is only by the will and determination of the *majority*” (§96).

If one originally had a right to what was needed to survive, drawn freely without consent from the commons, this civilizing process enabled one to accumulate property through hard work without limit and with the consent of the majority. Feudalism was dead. Long live the new properties. The principle human right of this new regime, to draw from the later chapter in the second treatise on “Ends of Political Society and Government,” is “to preserve his Property, that is, his Life, Liberty and Estate” (§87): “The great and *chief end* therefore, of Mens uniting into Commonwealths, and putting themselves under Government, is the *Preservation of their Property*” (§124).¹³

The Invention of Intellectual Property Rights: Locke refers, in the *Essay on Human Understanding*, to “all that Industry and Labor of Thought,” bringing together two of the critical aspects of property’s creation to the world of ideas (1957, 4.3.6). His approach to property is entirely consistent with a concept of *intellectual* property as a commercial entity within a market-driven economy. The investment of labor and talent in a written work improves it, giving it an originality and energy. The author then excludes others from the use of this intellectual property, keeping it from entering the commons, so that the money that people pay for access to it may serve as an incentive to keep producing such works.¹⁴ His theory also lends itself to a different notion of intellectual property, one that pertains to the commonwealth of learning. Here the incentive to improve a work through labor and reason, no less that talent and artistry, is recognized through a system of patronage, dominated today by state and non-profit organizations, as making a worthwhile contribution to the commons, even as the work retains the individual, if not quite private, properties of the individual who contributed the work.

It was but six years after Locke’s death in 1704, and two decades after the publication of the *Treatises*, that what is frequently identified as the first copyright law was established in England with the passing of “An Act for the Encouragement of Learning” (*Statute of Queen Anne*). What is particularly Lockean about this 1710

¹³ Note the far more poetic Jeffersonian substitution in the U.S. *Declaration of Independence* of 1776: “We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the *pursuit of Happiness*”

¹⁴ As Max Milam observes, Locke uses the word “property” in the *Essay Concerning Human Understanding* in relation to ideas, namely as, in Milam’s words, “an object possesses the power to cause certain ideas within the mind” (1967, p. 22). For Milam, this property of objects represents a similar power, to “the power of contained in human labor” (ibid.) which is at the source of Locke’s more formal sense of property, thus creating the bridge between simple power of property and ideas. Also, it should be noted that that my discussion of open access publishing and archiving models is not directed to that relatively small number who live off the proceeds of their learned books, but at those who work within the university community.

legislation, in addition to it protecting an author's right to profit from this form of work, is how rooted it is in a sense of necessity or self-preservation and the improvement of the common stock (of knowledge), rather than natural right. This Statute of Anne was signed into law not because it is fundamentally right to protect the author's own labor in principle because of this basic human right, but as it had become necessary to curtail those who "have of late frequently taken Liberty of Printing" pirated copies of books for, first of all, as it leads "too often to the Ruin of them [authors] and their Families" and then, too, "for the Encouragement of Learned Men to Compose and Write Useful Books." Works are only removed from this (un-copyrighted) commons out of a necessity that authors may live, as self-preservation is the first right of each of us, and as learned men may compose useful books.

While modern copyright law has greatly increased its protection of the author's great grandchildren (for 70 years after the author's death), it also continues to give special legal recognition to the need to encourage learned authors, with their useful books, through what is known as the "teacher's exception" or "academic exception" that allows scholars to retain copyright, rather than turning it over to their employers, an exception which has withstood challenges in the courts in recent times.¹⁵ In recognizing that a scholar's research is self-directed, owing more to free inquiry and the public good than to the direct financial well-being of the institution employing the researcher, the commonwealth of learning is set off from the rest of the economy.

A second distinguishing element to intellectual property in the commonwealth of learning is that it is governed by an extra-legal sensibilities having to do with concepts of plagiarism and scholarly integrity. These measures extend beyond copyright law – which simply protects the wording of an idea – to cover research methods and techniques of analysis, as well as ideas, discoveries and coinages. This ethic is a necessary aspect of the scholarly commons, which operates on the reputation economy of external patronage (otherwise known as tenure), but it is also what sustains the quality of the commons, as the citation is no less a service to the reader, as it further opens that commons, and adds to its value as a shared resource. The value of each property, in this case, contributes to the value of the commons as a whole, as it makes or adds sense of some slight portion of what is going on in that commons.¹⁶ It suggests that we would do well to look at what can be done today to ensure that works are not unduly kept from a commons that continues to play a vital and productive role in this community.

Scholars and the Commonwealth of Learning

¹⁵ See the 17 U.S.C. Section 101. Also, see Frankel (2002, 14) on the "teacher exception" upheld most recently by *Hays v. Sony Corp. of America*, 847 F.2d 412 (7th Cir. 1988); *Dolmage v. Erskine* [2003] OJ No. 161 (Ontario Superior Court of Justice - Small Claims Court) for a recent Canadian ruling; and more generally, McSherry (2001, 101-143).

¹⁶ This interpretation stands in contrast to Louis Menand's recent point on literature, in a review of James English's *The Economy of Prestige*, that, "in an information, or 'symbolic,' economy, in other words, the goods themselves are physically worthless: they are mere print on a page or code on a disk. What makes them valuable is the recognition that they are valuable. This recognition is not automatic or intuitive; it has to be constructed" (2006, p. 137). In the commonwealth of learning, one sets out to use the texts of others to improve the condition of the commons. Circulation with enhancement is everything with scholarship, and I am not so sure that this is as removed from the world of literature as Menand's comments suggest.

The first question, then, is whether the same level of exclusion associated with *private property* and the creation of estates is justified within today's commonwealth of learning. Certainly, the labor, reason, and improvement are as present in the case of scholarship as they are in the enclosure of the commons that Locke originally described. But the difference with the commonwealth of learning is that it finds its greatest value not in the right to exclude others from using private property but in the right to add it to the common stock of knowing for the use of others, as long as the work is properly attributed. Intellectual property rights may be associated with the publisher – the right to exclude, set the price of admission, fix a royalty rate – but their property is more than the intellectual aspect of the work. The intellectual *property* at issue in this commonwealth of learning, is not ownership, per se (although scholarly work can lead to patent claims, consulting contracts, and the occasional best-seller, all of which result in new sorts of property relationships for the scholar outside of the commonwealth). Research and scholarship have the notable *property* of improving on existing ideas and knowledge that constitute the commons. Ownership, in this case, is not the issue. Rather, what matters, alone, among intellectual property rights in this realm is the right to be credited with the advance.

The term *commonwealth* began to be used in Locke's day to refer to a state, namely a democracy or republic, as it was employed, for example, in the Act of Parliament to establish the short-lived English republic in 1649. However, the earlier meaning has to do with "public welfare and general good, according to the *Oxford English Dictionary*. And more importantly, for this discussion, Locke's *Two Treatises* is cited in the *OED* for his use of the term to indicate not a state, but a community: "By *Commonwealth*, I. mean, not a Democracy, or any Form of Government, but *any Independent Community* which the *Latines* signified by the word *Civitas*" (§133).¹⁷ If we then think about this *commonwealth of learning* as an "independent community," one in which its members agree by mutual consent to the value of a world of knowledge held in common, we find that Locke's theory of property provides a basis for understanding the special status or standing of intellectual property within this particular realm. It is the distinguishing features of intellectual property within the commonwealth of learning that are in danger of being lost from sight, with the increasing commercialization of scholarly publishing since the middle of the twentieth century.

My argument is that the intellectual property regime within the commonwealth of learning, particularly around the journal, alters the relationship among such key elements in Locke's theory of property as *improvement*, *preservation*, *commons*, and *exclusion*. Where Locke speaks of how "labor put a distinction between [the gathering of the apples] and the common," as it "added something more than Nature, the common mother of all, had done" (§28), it is the work that goes into picking the apple that makes them "private right" or property, which is further justified by the need for self-preservation on the part of the picker, and by how the removal of these apples does not substantially diminish the rights of the collective to also pick apples. Labor, preservation, and the largesse of the commons warrant possession of the apples. This complex of human rights and properties

¹⁷ "The *OED* attributes the first use of the "Common-wealth of Learning" to Henry Powers' *Experimental Philosophy* from 1664, which was the first book on microscopy, and likely one Locke encountered as a physician and member of the Royal Society, where such experiments were much discussed.

becomes, for Locke, the basis on which human history proceeds. In the commonwealth of learning, the interdependence of property and commons is only that much stronger.

Insert Figure 2 about here

The Lockean principle here is that enclosing the commons is only justified by how it leads to an improvement in the value of the property, as a result of the intelligent labor to which it is then subject. With the commonwealth of learning, a different sort of principle applies. The value of the work undertaken, or improvement, can only be fully realized by contributing the property back to the common stock of knowledge, rather than through its enclosure. A publisher or society can still be levied for scholarly work to cover the costs of producing it, but the value of the work is not related to those charges. That is, it is not considered acceptable within this economy to charge more for journals and books that are most in demand, and the opposite is often the case.¹⁸ Where Locke refers to what is “common and uncultivated,” the commonwealth of learning calls for the cultivation of the commons, best represented by the research libraries, where members of this community should, in principle, have equal access (§33).¹⁹

The value of the cultivated commons is as old as the university research library, where properties are placed and shared by the community. Now, of course, from the very beginnings of the university system, during the medieval period, there was private ownership of books, with a luxury trade in illuminated manuscripts. But in establishing the thoughtful contribution of a work of learning, in ascertaining its value as an *intellectual* property, the key has always been dependent on its ready availability to what were initially peripatetic scholars (before books began to circulate). To this day, books are temporarily withdrawn from the library, and placed in the scholar’s possession where they are used to augment and substantiate the creation of new properties, before being returned to the library.²⁰ Those who labor to produce these works of learning are supported, in turn, by the same institutions that host the library, living in a form of patronage that goes by the name of tenure, rather than trying to live directly off the proceeds of their intellectual properties. The *property*, in the sense of quality, that matters most in improving the productivity and value of the commons is not enclosure, that is, not the traditional property right to exclude others. The property at issue, in this case, is rather the author’s right of attribution, of claiming credit for that “improvement,” in the form of a growing reputation for contributing to the commonwealth.

¹⁸ Ted Bergstrom dramatically established a few years ago that among the top twenty economic journals, ranked by the ISI Web of Science journals, the non-profits averaged \$180 a year in subscription fees and held the top six places, compared to an average cost of \$1660 for journals published by the commercial publishers, which held only five spots among the top twenty (2001).

¹⁹ In considering Locke’s relation to intellectual property law, Justin Hughes points out that copyright law protects the labor invested in a work without regard to the value or *improvement* which the work offers, whereas the protection afforded by patent law is dependent on “usefulness” of the work in question (1988). Hughes also points out how Locke’s proscription against waste does not figure in intellectual property law – “Patents, copyrights, and trade secrets all are recognized whether or not the owner is squandering or has shelved the idea” – whereas to shelve a good idea within the commonwealth of learning clearly diminishes its value, as well as that of the commons as a whole.

²⁰ The importance of this pattern is only reinforced by grad-school legends during the age of print when the ruthlessly competitive razor-bladed new critical articles in the field out of the journals.

What distinguishes the commonwealth of learning, in Locke's terms, is how the community as a whole is improved as the commons is extended and advanced, rather than enclosed. In this way, the university system of libraries, scholars, and students remain a distinctly medieval monastic economy, of intellectual wealth held in common, with a good deal of hullabaloo today over its increasing commercialization (e.g., Bok 2003; Greiger, 2004). While this commonwealth of learning pre-dates the invention of print, in subsequent centuries, it most certainly came to benefit from a mixed economy of commercial and non-profit publishers who have provided the necessary editorial and publishing services to ensure that properties of lasting value continue to be added to this commonwealth.²¹

What has changed today are two factors that are causing librarians, if not yet scholars in great numbers, and librarians en masse to reconsider these traditional property rights and relations. The first factor is that most research libraries today are laying claim to a decreasing proportion of the available intellectual property, due to increasing prices, as well as a proliferation of titles. That decrease is magnified many times over among research libraries in the developing world, most of which cannot maintain even a minimal collection of current materials. The second factor is, of course, the transition to electronic publishing which has not only led to an open access movement for the journal literature, but has provided some bright spots for the decimated research libraries of the developing world, including the provision by publishers of free digital access to medical, agricultural and environmental literature.²² In addition, these new technologies have given rise to a dramatic increase in sharing and collaboration among scientists, particularly in the life sciences. There are now "open data" and "open biology" movements, demonstrating the value of extending, rather than further enclosing, the intellectual commons, while supporting such basic scientific principles as enabling replication studies. While a number of scientists wrap their work in Newtonian secretiveness, the National Academies in the United States have recognized the value of greater openness with data on an international scale, even as it increases the value of investments in scientific research at home.²³

What this digital publishing medium affords the commonwealth of learning is an *improvement* in the circulation of knowledge. It is an improvement that can be measured, much as Locke calculated the ten-fold increase in value resulting from "one acre of inclosed and cultivated land" compared to "an acre of land of an equal richness lying waste in common" (§37).²⁴ When a researcher archives a published article in her

²¹ Morris R. Cohen gives a modern take to Locke's own stand on the necessary link between private and public: "The significant thing is not whether you are for or against private property, but rather where you will draw the line between public and private things and affairs" (1950, p. 186).

²² See HINARI (<http://www.who.int/hinari/en/>); AGORA (<http://www.aginternetwork.org/en/>) and OPERE projects (<http://www.yale.edu/opa/newsr/05-12-22-04.all.html>).

²³ See the U.S. National Academies' Committee on Data for Science and Technology which, for example, jointly sponsored the Strategies for Preservation of and Open Access to Digital Scientific Data in China Conference, 22–24 June 2004 (http://www7.nationalacademies.org/usnc-codata/chinese_workshop.html). See also Biological Innovation for Open Society (<http://www.bios.net/daisy/bios/15>) and *Nature's* editorial, "Open-source biology" (2004); Bulter (2006), but also Campbell, *et al.* report on "Data Withholding in Academic Genetics" (2002).

²⁴ Locke raises the increased value of cultivation, over the next few paragraphs, to a hundred-fold and then a thousand-fold, in comparison to "all the Profit an *Indian* received" from a similar piece of uncultivated land (§43).

library's open access institutional repository, studies are already showing, it is likely to experience a 50-250% increase in the number of times it is cited – depending on the discipline (with physics at the high end and philosophy at the other) – when compared to articles in similar journals that have not been made open access by their authors.²⁵ That is to say that both research and authors benefit from this improved access, through an immediate and short-term increase in citations (which may not be the case, of course, when all work is equally open access), and in a longer-term contribution to the commonwealth of learning.

It falls, then to every scholar, librarian, and administrator to consider whether they are taking advantage of these digital technologies to improve the commonwealth of learning. The Lockean obligation, following on this right to take freely and equally from the commons, is to work for the continuing improvement of that commonwealth.²⁶ Participation in this commons has an element of *stewardship* to it, which is best represented in the commonwealth of learning by the nominally thankless work of conducting blind peer reviews to ensure the quality of the journal literature.²⁷

The alternative is business-as-usual for scholarly publishing for this inevitable transition to this digital era, which amounts to continuing corporate concentration among journal publishers, with closely related subscription-price increases (compensating in part for declining circulations). It would mean the loss of a great opportunity to improve the contribution that scholarly work makes to the commons and thus to its standing as a public good.²⁸ Digital publishing is being used to extend the publishers' property rights over this work, through pay-per-view options and electronic management rights; it is facilitating the delivery of the better part of libraries – including a 1690 facsimile of the *Two Treatises* – to the desktops of students and faculty “for their benefit, and for the greatest Conveniencies of Life” (§34); it is extending greater access to the commonwealth of learning for developing nations; and it has begun to give rise to *open access* and *open data* movements – sometimes in commercial settings such as Google

²⁵ For a list of such studies, see Hitchcock (2006), with one study showing that in a sample of education articles, those that were open access (5 percent of the sample) were cited 77 percent more frequently than those articles which their authors had not made self-archived or otherwise made open access (Hajjem, Harnad, Gringras, 2005).

²⁶ On Locke's standing in favor of communitarianism or collectivism, although hardly an uncontested reading of a philosopher often held up as a champion of individualism, see Matthew H. Kramer defense of Locke's support for “the moral/political prioritization of collective needs over any individual's needs,” while allowing that “individual rights can exist in such a world, but they only exist insofar as they can advance the collective good” one which “can reach to all human agents simply by virtue of membership in the human species” (1997, p. ix-x). C. B. Macpherson's reading of Locke, in which “the thorough-going the individualism, the complete the collectivism” also has a special way of speaking to intellectual propertites within the commonwealth of learning (1962, p. 256).

²⁷ The concept of demonstrating stewardship toward the land was a concept used by late medieval and Reformation writers to justify the holding of private property (Macpherson, 1978, p. 9). Macpherson also notes how the concept of common property drops from view with the seventeenth century “when we enter the modern world of full capitalist market society,” after which “common property has some to seem a contradiction in terms” (p. 10).

²⁸ Commercial journal publishing, when compared to the journals offered by non-profit societies, reflects, in the field of education, for example, a subscription rate that runs 3.75 times higher on a per article basis, based on a comparison of 44 non-profit journals and 58 commercial titles in education, with the cost ratio even higher when one compares the qualities of the journals by comparing the cost per number of times an article is cited (Bergstrom and MacAfee, 2005).

Scholar – which could radically alter the status and presence of scholarly work as part of that original world held in common.

The particular property relations that have developed within the world of scholarly print publishing over the last two centuries are due for reformation, in light of these new publishing technologies. Judging by the plethora of new economic models that have emerged in the last decade among scholarly publishing interests, directly as a result of digital publishing, the possibilities for improvement are considerable (Willinsky 2006). While publishers work both sides, permitting their authors to archive published work in open access repositories while selling subscriptions at a premium, and authors are very slow on the uptake of the open access advantage, the funding agencies have recently entered the game. The National Institutes of Health in the U.S., Research Councils UK, Social Sciences and Humanities Research Council of Canada, and the Wellcome Trust are at various stages of introducing initiatives, and not without industry and scholarly society resistance, that would mandate open access for the research they support, requiring (or in some cases requesting) authors to ensure that their published work is made publicly and freely available, whether by archiving it at their institution or by publishing it an open access journal in the first place.²⁹

The question is whether a new dynamic between properties and commons among scholars can be forged during this formative period for the digital publishing technologies, a dynamic that extends the original goals of this property formation – dating back to Locke’s day and the very origins of the scholarly journal (with the launch of *Journal des sçavans* and *Philosophical Transactions* in 1665) – in improving the global exchange of knowledge in spirit of open science and public scholarship (Willinsky, 2005). What it will take for us to assess the potential of this improvement is for scholars to make it their business, as well as their own personal educational policy, to offer the world held in common more of what they have learned, by exploring ways of affording greater access to the knowledge they are producing. The result of this increase in access to knowledge, for the commoners inhabiting the larger commonwealth, may range from answers to very practical questions about new drug treatments to fascinating astronomical discoveries for amateur astronomers. Yet what Locke reminds of us is that property is rooted in most basic of rights held in common, “being once born” (§25), and what he presents is the simple force of “natural reason” with which to assess the rights associated with these particular intellectual properties within this peculiar commonwealth of learning. As that commonwealth is improved, I would hold, so follows the educational quality of the civil society at large.

School Students and the Commonwealth of Learning

I have extended Locke’s theory of property to the commonwealth of learning, by holding that the reasoned and industrious *improvement* of ideas is what warrants claims to have created intellectual property, beyond one’s immediate needs, and that the value of this

²⁹ In a recent British parliamentary debate, over the value of open access journals, (in relation to the Science and Technology Committee’s report *Scientific Publications: Free for all?*), Phil Willis, Liberal Democrat from Harrogate & Knaresborough, concluded that, “It appeared to many that the DTI [Department of Trade and Industry] had done a good job of defending the interests of the successful UK publishing industry at the expense of innovation in the market that might benefit the wider academic community” (Westminster Hall Debates, 2005).

improvement is not in estate-building, but in how the work's advances that common wealth and how the work is taken up by others. This case, used to argue for open access to research and scholarship, is no different for the work of students attending school. They are as much a part of that commonwealth. The current treatment of intellectual property in the schools involves a similar distortion, which diminishes its value as a public good, although for very different reasons. Certainly, new digital technologies provide schools students with many exciting opportunities to apply industry and reason to improving the commonwealth of learning, but educational policies are largely directed elsewhere at this point.

To draw on the American example, once more, the federal Department of Education places its policy emphasis on "stronger accountability for results." This is the first principle of President Bush's No Child Left Behind Act of 2001. The Department of Education website advises citizens that this accountability is all about testing what students learn: "Too many of our nation's schools have not measured up because our measures for success have been ineffective... We need to test children on their academic knowledge and skills for the same reason we take them to the dentist to see whether or not they have cavities—because we need to know" (NCLB, 2004). The over-riding assumption is that without testing, a child's learning cannot be ascertained: "In order to provide a quality education for every child in America, we must first test them to find out which children are not learning at the level or pace necessary to keep up." This tends to make the test both means and end for teachers and teaching: "Gifted and inspiring teachers use tests to motivate students as well as to assess to their learning" (NCLB, 2004).

Not surprisingly, a good number of critiques have emerged over the last four years over rampant inadequacies and inherent biases built into the very design of this assessment program.³⁰ However, my issues are with what the act means for the intellectual property rights of the students. Rather than holding that what a student learns is something that they possess, that they have made their own and is part of their person, in Locke's sense, and that they can use to increase the value of their work, this emphasis on accountability uses their learning to assess the teacher, school, and state. More than that the idea that learning is something that can only be assessed on a standardized achievement test undermines the common-sense notion that students learn through working with teachers and students, and that anyone can the learning that is reflected in their work together.

Insert Figure 3 about here

That a student and a teacher cannot be trusted to give an account of their learning over the course of a week or a month, that the work they do together has no value in itself, except as it prepares them for the achievement tests, leaves little room for learning

³⁰ See, for example, Robert L Linn's analysis of state performance standards: "Variability in the definitions of proficient academic achievement by states for purposes of the No Child Left Behind Act of 2001 is discussed and it is argued that the variability is so great that characterizing achievement is meaningless" (2003); also see Kim and Sunderman (2005) on measuring academic proficiency: "Mean proficiency should be viewed as only one of many performance indicators to be used in determining whether schools are contributing to student achievement and whether subgroups of students are making academic progress in reading and mathematics" (p. 12).

driven by personal or collective interests. Or to put it another way, the industrious and rational “improvement” that a child might otherwise invest in the retelling of an age-old story, in exploring the oral history of her community, or in doing a cost-benefit analysis of disposable dishes compared to a new dishwasher for the school cafeteria, is robbed of any value or standing as *intellectual property*. The score a student is awarded on a series of reading and mathematics tests has only the most abstract association with a year spent working with a teacher and a classroom full of students. Of course, the students have learned far more week in and week out than can ever be reduced to a pair of grade-level scores; it is the measure of a potential, at best, largely for further learning at the next grade. But it is also a singularly powerful lesson in itself as to what learning counts. Whatever comes from the student’s hand is singularly unproductive, except as it serves the test score.

Now, to be part of a school’s “minority sub-group,” as they are known in the testing regime of NCLB, that has succeeded in raising its achievement test scores is something to be proud of, without a doubt; and the success of New York and other cities in reducing the achievement gap is to be commended and studied (Herszenhorn 2005). But such successes have little to teach students about the contribution which learning makes to the world. The current policy focus on testing may recognize the students’ right to learn and to attend schools where every effort is being made to give them a good education, but it is resulting in an education that is in danger of suggesting that the principle property of learning is to be found in a quantifiable measure, an instrument of national assessment (and international competition).

One wants to stand up, with Locke’s *Treatises* in hand, and insist that students need a chance, as well, to learn how “the improvement of labor,” in Locke’s terms, creates a right or sense of self-possession, that affect the intellectual properties one creates, especially as those properties can contribute, in the school setting, to the commonwealth of learning (§40). Students may be discouraged by their teachers from purchasing ready-made essays online, but they are unlikely to learn about the intellectual property status of their own work. More importantly, they will have little opportunity to experience the value of giving something back to the commons, of improving the commons, as a result of one’s learning through one’s own industry and reason. Such a project is rendered irrelevant, if not an outright threat, to test preparation.³¹

In addition, students are sold short on the right to participate with teachers in building accounts of the work they are doing together, in providing “evidence-based” results of their learning to share with parents, administrators, university officials, and potential employers. The students learn nothing of being accountable for their work and learning – in the sense of having to convince others that gains have been made and something of value created through their time and effort – as the assessment of their learning is managed for them outside of the school. All they need to do to is *sit* the test. The standardized test results, with their focus on grade-level proficiencies, provide

³¹ For examples of intellectual property work that gives back to the commons, I can offer the efforts of local teachers with whom I have worked, which has involved creating a multilingual literature anthology for classes to use, when resources are not available to purchase more up to date texts (Willinsky, in press); having classes of students provide the technical support and training for teachers, students and parents to deploy new technologies in the school (Wolfson & Willinsky, 1998); and having students assist those in their community in achieving their basic rights, as per Locke (Inglis & Willinsky, 2006).

parents and members of the community with little sense of what the students are now capable of doing.³²

Please note that Locke's own "thoughts concerning education" are not at issue here (1693). His writing on this topic, as on slavery, have little that is encouraging or enlightened to offer this discussion. His principal work on education certainly had none of the radical daring of the English Revolution, with its proposals for universal education, mixed with manual work, for youth of both sexes up to the university level, as well as for weekly community discussion classes on philosophy, medicine, history and civic studies, led by an elected member of the parish (Hill, 1972, pp. 241-245). For Locke, if the child were destined to be a *gentleman* – which is how this physician and philosopher identified himself on his books – learning was not as important an educational goal as the acquisition of morals and manners: "Learning must be had, but in the second place, as subservient only to greater qualities" (1693). Locke's proscriptions for the working class, apart from the whipping of boys and girls for vagrancy, were largely concerned with how Working Schools would enable the young, from three to fourteen, to work for the relief of the poor (1697).³³

Yet in that larger realm, in which Locke treated all humanity as equal, having been born into a world originally given to them in common, Locke firmly set in place, for Western thinking, an understanding of human rights, in which each person had a right of their own person and property. It was to become a part of what we associate with individualism, and what we now take for granted with ideas of intellectual property, such that it can turn a few scribbles on the back of an envelop into a copyrighted song worth taking a crooner to court over. At the same time, even as the music and film industry would be delighted to see students receiving lessons on the intellectual property laws that they otherwise transgress without a second thought (Lettice, 2004), the students need to see, as well, how intellectual property can also operate as a public good and as part of the commons. They would do well, then, to learn of the open access and Creative Commons movements, that would protect the public sphere of this otherwise corporate-bound knowledge economy. They have to learn to navigate this new public info-sphere of Wikipedias and blogs, and begin to understand where they, too, can begin to make a contribution.

Three-and-half centuries ago, Locke was living in a world rife with conflicting property regimes – feudal, church-laden, freeholder, commons, colonized – which were being undone and done up again through the English Revolution and Restoration. Locke ended up staking his property claims in natural reason and God's initial whole-earth grant

³² The idea that a community can generate an adequate local account of what has been studied and learned in the schools is something that is being experimented with in British Columbia, the Canadian province in which I teach, under the name of *District Accountability Contract* (2006) while this would only serve to supplement the province-wide testing program, it is just the sort of possibility that could be made to serve student intellectual property rights far better than the route of standardized achievement tests.

³³ Jeremy Waldron (2002) has defended Locke's embrace of what Waldron calls the "democratic intellect," based on, among other things, the case that Locke makes in the *Essay Concerning Human Understanding*, when he wrote "the greatest part of Mankind... enslaved to the Necessity of their mean Condition" possessed "Opportunities of Knowledge and Enquiry" that were "commonly as narrow as their Fortunes" (1957, 4.20.2). Social structures, such as access to education, then, rather than any class-based limitations to reasoning abilities, were at issue in ways that again, relate to this paper's larger rights theme of access to knowledge.

to all humankind, in principles of liberty and equality that would inspire nations that could not begin to recognize the consequences of such ideas for the status quo, even as it also licensed unbounded ownership, a source of great and growing inequity, as well as perpetuating the most basic violation of human rights, in the treatment of others as property. Locke made *property* the necessary foundation of human rights and liberal democracy.

Perhaps more to the point of intellectual property rights for scholars and students, Locke's ideas of self-ownership and the right to own one's labor leads directly to regarding the work of writing as a way of creating properties, properties as worthy of legislated protection as the no-trespassing signs posted on the stone fences of country estates, but properties, as well, that are to be judged, as a result of their special status within the commonwealth of learning, by their contribution to the public good. The government ensures, on behalf of the public interest, that this educational commons is kept open for the benefit of all, while those who work within this commonwealth of learning find the value of their work in what they contribute to the commons, whether by way of educated citizens or scholarly work. While much learning, and the creation of much intellectual property, takes place outside of this commonwealth of learning, what that commonwealth especially affords those who labor within it is a chance to see knowledge as an end in itself and learning as a benefit to the world in both direct and indirect ways.

This is not to deny that this process of going public needs a solid "business" plan, or rather a sound economic basis for continued contributions. (It is only to insist that the foremost value for the public sector of this knowledge-based economy need not be, say, sustaining a vital publishing industry.) These new publishing technologies are being used to draw different sorts of lines between private property and public commons, some of which, such as open access scholarly publishing, promise to do a great deal to advance the commons in favor of all, as well as providing in the process a much stronger public account of that commons' value. As university faculty come to appreciate how much more they can do this commons, and as students are taught how to contribute to that commons through their own learning and labor, one cannot help but feel somewhat encouraged about the democratic and educational properties of the world to come.

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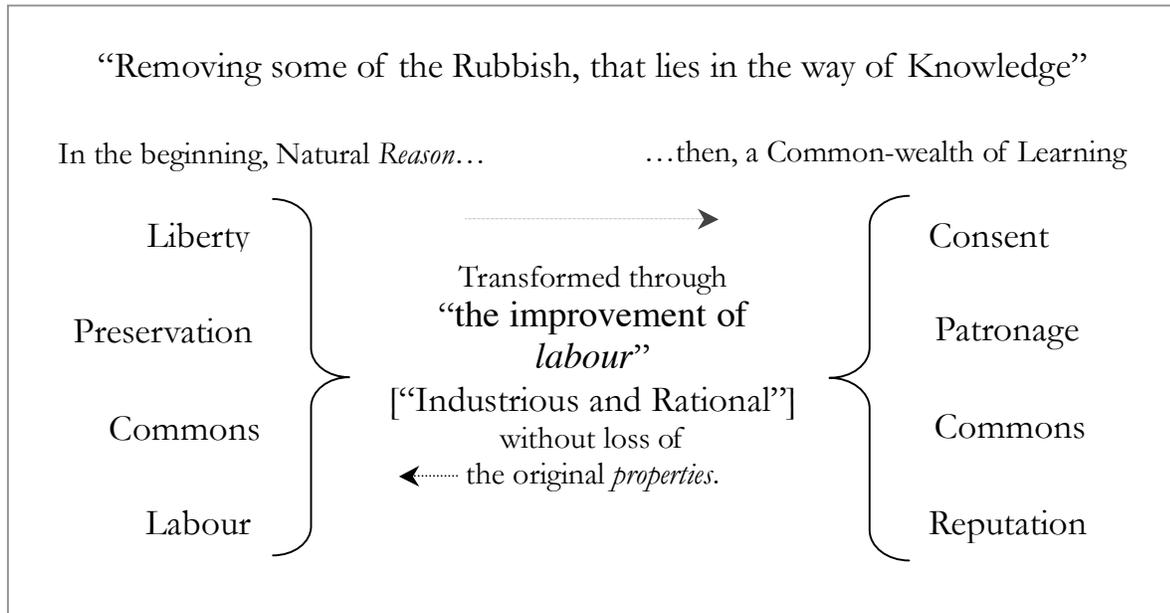


Figure 2. Intellectual property rights within the commonwealth of learning

This extension of Locke’s theory to intellectual property is intended to illustrate how the value of such properties, for their creator and the public, depends on what those properties contribute to the commons. The quotation is from Locke’s Epistle to the Reader, in *An Essay Concerning Human Understanding*, referring to his own work in the “Commonwealth of Learning” (1957, p. 14).

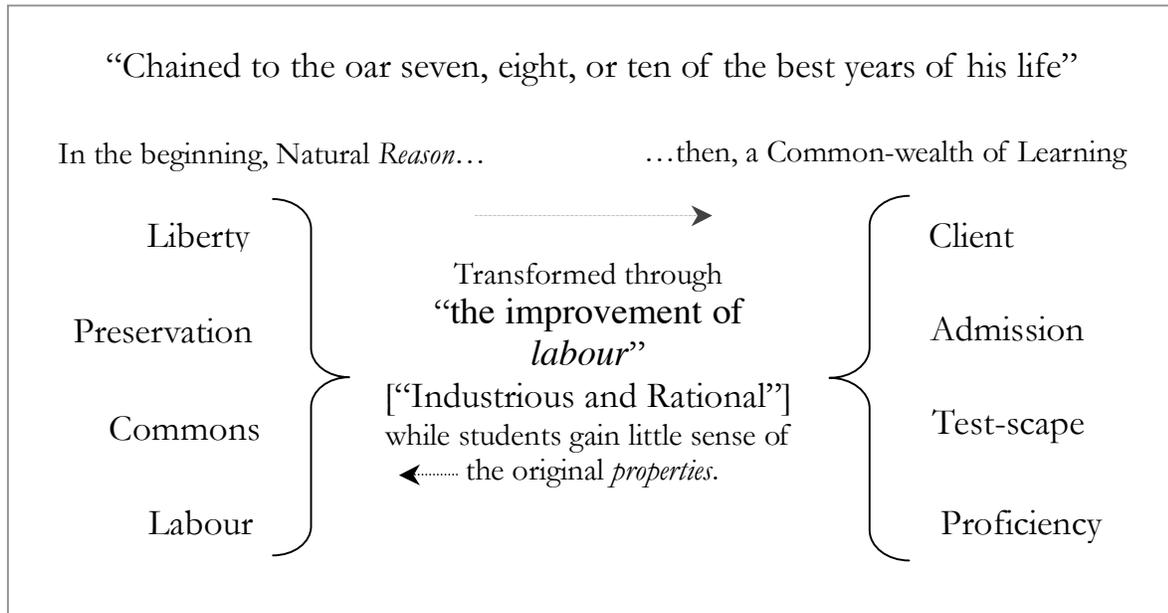


Figure 3. Intellectual property within the schools’ commonwealth of learning

With an increasing emphasis on students, as the conscripted clients of an accountable school system, improving the educational test-scape of the nation by demonstrating a proficiency directed at admission to the next grade or school, the students have fewer opportunities to see what their work, and intellectual property in general, can contribute to the commonwealth of learning as well as to the community. The quotation is from Locke’s *Some Thoughts on Education* (1690).