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## The Second Enclosure Movement

*The law locks up the man or woman  
Who steals the goose from off the common  
But leaves the greater villain loose  
Who steals the common from off the goose.*

*The law demands that we atone  
When we take things we do not own  
But leaves the lords and ladies fine  
Who take things that are yours and mine.*

*The poor and wretched don't escape  
If they conspire the law to break;  
This must be so but they endure  
Those who conspire to make the law.*

*The law locks up the man or woman  
Who steals the goose from off the common  
And geese will still a common lack  
Till they go and steal it back.*

[Anon.]<sup>1</sup>

In fits and starts from the fifteenth to the nineteenth century, the English “commons” was “enclosed.”<sup>2</sup> Enclosure did not necessarily mean physical fencing, though that could happen. More likely, the previously common land was simply converted into private property, generally controlled by a single landholder.

The poem that begins this chapter is the pithiest condemnation of the process. It manages in a few lines to criticize double standards, expose the controversial nature of property rights, and take a slap at the legitimacy of state power. And it does this all with humor, without jargon, and in rhyming couplets. Academics should take note. Like most criticisms of the enclosure movement, the poem depicts a world of rapacious, state-aided “privatization,” a conversion into private property of something that had formerly been common property or perhaps had been outside the property system altogether. One kind of “stealing” is legal, says the poet, because the state changes the law of property to give the “lords and ladies” a right over an area formerly open to all. But let a commoner steal something and he is locked up.

The anonymous author was not alone in feeling indignant. Thomas More (one of only two saints to write really good political theory) made similar points, though he used sheep rather than geese in his argument. Writing in the sixteenth century, he had argued that enclosure was not merely unjust in itself but harmful in its consequences: a cause of economic inequality, crime, and social dislocation. In a wonderfully bizarre passage he argues that sheep are a principal cause of theft. Sheep? Why, yes.

[Y]our sheep that were wont to be so meek and tame, and so small eaters, now, as I hear say, be become so great devourers and so wild, that they eat up, and swallow down the very men themselves. They consume, destroy, and devour whole fields, houses, and cities.

Who were these sheep? Bizarre Dolly-like clones? Transgenic killer rams? No. More meant only that under the economic lure of the wool trade, the “noblemen and gentlemen” were attempting their own enclosure movement.

[They] leave no ground for tillage, they enclose all into pastures; they throw down houses; they pluck down towns, and leave nothing standing, but only the church to be made a sheep-house. . . . Therefore that one covetous and insatiable cormorant and very plague of his native country may compass about and enclose many thousand acres of ground together within one pale or hedge, the husbandmen be thrust out of their own.<sup>3</sup>

The sheep devour all. The dispossessed “husbandmen” now find themselves without land or money and turn instead to theft. In More’s vision, it is all very

simple. Greed leads to enclosure. Enclosure disrupts the life of the poor farmer. Disruption leads to crime and violence.

Writing 400 years later, Karl Polanyi echoes More precisely. He calls the enclosure movement “a revolution of the rich against the poor” and goes on to paint it in the most unflattering light. “The lords and nobles were upsetting the social order, breaking down ancient law and custom, sometimes by means of violence, often by pressure and intimidation. They were literally robbing the poor of their share in the common. . . .”<sup>4</sup> And turning them to “beggars and thieves.” The critics of enclosure saw other harms too, though they are harder to classify. They bemoaned the relentless power of market logic to migrate to new areas, disrupting traditional social relationships and perhaps even views of the self, or the relationship of human beings to the environment. Fundamentally, they mourned the loss of a form of life.

So much for the bad side of the enclosure movement. For many economic historians, everything I have said up to now is the worst kind of sentimental bunk, romanticizing a form of life that was neither comfortable nor noble, and certainly not very egalitarian. The big point about the enclosure movement is that it worked; this innovation in property systems allowed an unparalleled expansion of productive possibilities.<sup>5</sup> By transferring inefficiently managed common land into the hands of a single owner, enclosure escaped the aptly named “tragedy of the commons.” It gave incentives for large-scale investment, allowed control over exploitation, and in general ensured that resources could be put to their most efficient use. Before the enclosure movement, the feudal lord would not invest in drainage systems, sheep purchases, or crop rotation that might increase yields from the common—he knew all too well that the fruits of his labor could be appropriated by others. The strong private property rights and single-entity control that were introduced in the enclosure movement avoid the tragedies of overuse and underinvestment: more grain will be grown, more sheep raised, consumers will benefit, and fewer people will starve in the long run.<sup>6</sup>

If the price of this social gain is a greater concentration of economic power, the introduction of market forces into areas where they previously had not been so obvious, or the disruption of a *modus vivendi* with the environment—then, enclosure’s defenders say, so be it! In their view, the agricultural surplus produced by enclosure helped to save a society devastated by the mass deaths of the sixteenth century. Those who weep over the terrible effects of private property should realize that it literally saves lives.

Now it is worth noting that while this view was once unchallenged,<sup>7</sup> recent scholarship has thrown some doubts on the effects of enclosure on agricultural production.<sup>8</sup> Some scholars argue that the commons was actually better run than the defenders of enclosure admit.<sup>9</sup> Thus, while enclosure did produce the changes in the distribution of wealth that so incensed an earlier generation of critical historians, they argue that there are significant questions about whether it led to greater efficiency or innovation. The pie was carved up differently, but did it get bigger? The debate about these issues is little known, however, outside the world of economic historians. “Everyone” knows that a commons is by definition tragic and that the logic of enclosure is as true today as it was in the fifteenth century. I will not get involved in this debate. Assume for the sake of argument that enclosure did indeed produce a surge in agriculture. Assume, in other words, that converting the commons into private property saved lives. This is the logic of enclosure. It is a powerful argument, but it is not always right.

This is all very well, but what does it have to do with intellectual property? I hope the answer is obvious. The argument of this book is that we are in the middle of a second enclosure movement. While it sounds grandiloquent to call it “the enclosure of the intangible commons of the mind,” in a very real sense that is just what it is.<sup>10</sup> True, the new state-created property rights may be “intellectual” rather than “real,” but once again things that were formerly thought of as common property, or as “uncommodifiable,” or outside the market altogether, are being covered with new, or newly extended, property rights.

Take the human genome as an example. Again, the supporters of enclosure have argued that the state was right to step in and extend the reach of property rights; that only thus could we guarantee the kind of investment of time, ingenuity, and capital necessary to produce new drugs and gene therapies.<sup>11</sup> To the question, “Should there be patents over human genes?” the supporters of enclosure would answer that private property saves lives.<sup>12</sup> The opponents of enclosure have claimed that the human genome belongs to everyone, that it is literally the common heritage of humankind, that it should not and perhaps in some sense *cannot* be owned, and that the consequences of turning over the human genome to private property rights will be dreadful, as market logic invades areas which should be the farthest from the market. In stories about stem cell and gene sequence patents, critics have mused darkly about the way in which the state is handing over monopoly power to a few individuals and corporations, potentially introducing bottlenecks and coordination costs that slow down innovation.<sup>13</sup>

Alongside these accounts of the beneficiaries of the new property scheme run news stories about those who were not so fortunate, the commoners of the genetic enclosure. Law students across America read *Moore v. Regents of University of California*, a California Supreme Court case deciding that Mr. Moore had no property interest in the cells derived from his spleen.<sup>14</sup> The court tells us that giving private property rights to “sources” would slow the freewheeling practice researchers have of sharing their cell lines with all and sundry.<sup>15</sup> The doctors whose inventive genius created a billion-dollar cell line from Mr. Moore’s “naturally occurring raw material,” by contrast, are granted a patent. Private property rights here, by contrast, are a necessary incentive to research.<sup>16</sup> Economists on both sides of the enclosure debate concentrate on the efficient allocation of rights. Popular discussion, on the other hand, doubtless demonstrating a reprehensible lack of rigor, returns again and again to more naturalistic assumptions such as the essentially “common” quality of the property involved or the idea that one owns one’s own body.<sup>17</sup>

The genome is not the only area to be partially “enclosed” during this second enclosure movement. The expansion of intellectual property rights has been remarkable—from business method patents, to the Digital Millennium Copyright Act, to trademark “anti-dilution” rulings, to the European Database Protection Directive.<sup>18</sup> The old limits to intellectual property rights—the anti-erosion walls around the public domain—are also under attack. The annual process of updating my syllabus for a basic intellectual property course provides a nice snapshot of what is going on. I can wax nostalgic looking back to a five-year-old text, with its confident list of subject matter that intellectual property rights could not cover, the privileges that circumscribed the rights that did exist, and the length of time before a work falls into the public domain. In each case, the limits have been eaten away.

#### HOW MUCH OF THE INTANGIBLE COMMONS SHOULD WE ENCLOSE?

So far I have argued that there are profound similarities between the first enclosure movement and our contemporary expansion of intellectual property, which I call the second enclosure movement. Once again, the critics and proponents of enclosure are locked in battle, hurling at each other incommensurable claims about innovation, efficiency, traditional values, the boundaries of the market, the saving of lives, the loss of familiar liberties. Once again, opposition to enclosure is portrayed as economically illiterate: the beneficiaries of

enclosure telling us that an expansion of property rights is needed in order to fuel progress. Indeed, the post-Cold War “Washington consensus” is invoked to claim that the lesson of history itself is that the only way to get growth and efficiency is through markets; property rights, surely, are the *sine qua non* of markets.<sup>19</sup>

This faith in enclosure is rooted in a correspondingly deep pessimism about the possibility of managing resources that are either commonly owned or owned by no one. If all have the right to graze their herds on common land, what incentive does anyone have to hold back? My attempt to safeguard the future of the pasture will simply be undercut by others anxious to get theirs while the getting is good. Soon the pasture will be overgrazed and all our flocks will go hungry. In a 1968 article, Garrett Hardin came up with the phrase that would become shorthand for the idea that there were inherent problems with collectively managed resources: “the tragedy of the commons.”<sup>20</sup> The phrase, more so than the actual arguments in his article, has come to exercise considerable power over our policies today. Private property—enclosure—is portrayed as the happy ending for the tragedy of the commons: when policy makers see a resource that is unowned, they tend to reach reflexively for “the solving idea of property.” According to this view, enclosure is not a “revolution of the rich against the poor,” it is a revolution to save the waste of socially vital resources. To say that some social resource is *not* owned by an individual, that it is free as the air to common use, is automatically to conjure up the idea that it is being wasted.

But if there are similarities between our two enclosures, there are also profound dissimilarities; the networked commons of the mind has many different characteristics from the grassy commons of Old England.<sup>21</sup> I want to concentrate here on two key differences between the intellectual commons and the commons of the first enclosure movement, differences that should lead us to question whether this commons is truly tragic and to ask whether stronger intellectual property rights really are the solution to our problems. These differences are well known, indeed they are the starting point for most intellectual property law, a starting point that Jefferson and Macaulay have already laid out for us. Nevertheless, reflection on them might help to explain both the problems and the stakes in the current wave of expansion.

Unlike the earthy commons, the commons of the mind is generally “nonrival.” Many uses of land are mutually exclusive: if I am using the field for grazing, it may interfere with your plans to use it for growing crops. By contrast, a gene sequence, an MP3 file, or an image may be used by multiple parties; my

use does not interfere with yours. To simplify a complicated analysis, this means that the threat of overuse of fields and fisheries is generally not a problem with the informational or innovational commons.<sup>22</sup> Thus, one type of tragedy of the commons is avoided.

The concerns in the informational commons have to do with a different kind of collective action problem: the problem of incentives to create the resource in the first place. The difficulty comes from the assumption that information goods are not only nonrival (uses do not interfere with each other), but also nonexcludable (it is impossible, or at least hard, to stop one unit of the good from satisfying an infinite number of users at zero marginal cost). Pirates will copy the song, the mousetrap, the drug formula, the brand. The rest of the argument is well known. Lacking an ability to exclude, creators will be unable to charge for their creations; there will be inadequate incentives to create. Thus, the law must step in and create a limited monopoly called an intellectual property right.

How about the argument that the increasing importance of information-intensive products to the world economy means that protection must increase? Must the information commons be enclosed because it is now a more important sector of economic activity?<sup>23</sup> This was certainly one of the arguments for the first enclosure movement. For example, during the Napoleonic Wars enclosure was defended as a necessary method of increasing the efficiency of agricultural production, now a vital sector of a wartime economy.

Here we come to another big difference between the commons of the mind and the earthy commons. As has frequently been pointed out, information products are often made up of fragments of other information products; your information output is someone else's information input.<sup>24</sup> These inputs may be snippets of code, discoveries, prior research, images, genres of work, cultural references, or databases of single nucleotide polymorphisms—each is raw material for future innovation. Every increase in protection raises the cost of, or reduces access to, the raw material from which you might have built those future products. The balance is a delicate one; one Nobel Prize-winning economist has claimed that it is actually impossible to strike that balance so as to produce an informationally efficient market.<sup>25</sup>

Whether or not it is impossible in theory, it is surely a difficult problem in practice. In other words, even if enclosure of the arable commons always produced gains (itself a subject of debate), enclosure of the information commons clearly has the potential to harm innovation as well as to support it.<sup>26</sup> More property rights, even though they supposedly offer greater incentives, do not

necessarily make for more and better production and innovation—sometimes just the opposite is true. It may be that intellectual property rights *slow down* innovation, by putting multiple roadblocks in the way of subsequent innovation.<sup>27</sup> Using a nice inversion of the idea of the tragedy of the commons, Heller and Eisenberg referred to these effects—the transaction costs caused by myriad property rights over the necessary components of some subsequent innovation—as “the tragedy of the anticommons.”<sup>28</sup>

In short, even if the enclosure movement was a complete success, there are important reasons to believe that the intangible world is less clearly a candidate for enclosure, that we should pause, study the balance between the world of the owned and the world of the free, gather evidence. After all, even in physical space, “common” property such as roads increases the value of the surrounding private tracts. If there are limits to the virtues of enclosure even there, how much more so in a world of intangible and nonrival goods, which develop by drawing on prior creations? Yet the second enclosure movement proceeds confidently nevertheless—with little argument and less evidence.

To be sure, there is a danger of overstatement. The very fact that the changes have been so one-sided makes it hard to resist exaggerating their impact. In 1918, Justice Brandeis confidently claimed that “[t]he general rule of law is, that the noblest of human productions—knowledge, truths ascertained, conceptions, and ideas—become, after voluntary communication to others, free as the air to common use.”<sup>29</sup> That baseline—intellectual property rights are the exception rather than the norm; ideas and facts must always remain in the public domain—is still supposed to be our starting point.<sup>30</sup> It is, however, under attack.

Both overtly and covertly, the commons of facts and ideas is being enclosed. Patents are increasingly stretched to cover “ideas” that twenty years ago all scholars would have agreed were unpatentable.<sup>31</sup> Most troubling of all are the attempts to introduce intellectual property rights over mere compilations of facts.<sup>32</sup> If U.S. intellectual property law had an article of faith, it was that unoriginal compilations of facts would remain in the public domain, that this availability of the raw material of science and speech was as important to the next generation of innovation as the intellectual property rights themselves.<sup>33</sup> The system would hand out monopolies in inventions and in original expression, while the facts below (and ideas above) would remain free for all to build upon. But this premise is being undermined. Some of the challenges are subtle: in patent law, stretched interpretations of novelty and nonobviousness allow intellectual property rights to move closer and closer to the underlying data



layer; gene sequence patents come very close to being rights over a particular discovered arrangement of data—C's, G's, A's, and T's.<sup>34</sup> Other challenges are overt: the European Database Protection Directive did (and various proposed bills in the United States would) create proprietary rights over compilations of facts, often without even the carefully framed exceptions of the copyright scheme, such as the usefully protean category of fair use.

The older strategy of intellectual property law was a “braided” one: thread a thin layer of intellectual property rights around a commons of material from which future creators would draw.<sup>35</sup> Even that thin layer of intellectual property rights was limited so as to allow access to the material when that was necessary to further the goals of the system. Fair use allows for parody, commentary, and criticism, and also for “decompilation” of computer programs so that Microsoft’s competitors can reverse engineer Word’s features in order to make sure their program can convert Word files. It may sound paradoxical, but in a very real sense protection of the commons was one of the fundamental goals of intellectual property law.

In the new vision of intellectual property, however, property should be extended everywhere; more is better. Expanding patentable and copyrightable subject matter, lengthening the copyright term, giving legal protection to “digital barbed wire,” even if it is used to prevent fair use: each of these can be understood as a vote of no confidence in the productive powers of the commons. We seem to be shifting from Brandeis’s assumption that the “noblest of human productions are free as the air to common use” to the assumption that any commons is inefficient, if not tragic.

The expansion is more than a formal one. It used to be relatively hard to violate an intellectual property right. The technologies of reproduction or the activities necessary to infringe were largely, though not entirely, industrial. Imagine someone walking up to you in 1950, handing you a book or a record or a movie reel, and saying “Quick! Do something the law of intellectual property might forbid.” (This, I admit, is a scenario only likely to come to the mind of a person in my line of work.) You would have been hard-pressed to do so. Perhaps you could find a balky mimeograph machine, or press a reel-to-reel tape recorder into use. You might manage a single unauthorized showing of the movie—though to how many people? But triggering the law of intellectual property would be genuinely difficult. Like an antitank mine, it would not be triggered by the footsteps of individuals. It was reserved for bigger game.

This was no accident. The law of intellectual property placed its triggers at the point where commercial activity by competitors could undercut the

exploitation of markets by the rights holder. Copying, performance, distribution—these were things done by other industrial entities who were in competition with the owner of the rights: other publishers, movie theaters, distributors, manufacturers. In practice, if not theory, the law was predominantly a form of horizontal industry regulation of unfair competition—made by the people in the affected industries for the people in the affected industries. The latter point is worth stressing. Congress would, and still does, literally hand over the lawmaking process to the industries involved, telling them to draft their intra-industry contract in the form of a law, and then to return to Congress to have it enacted. The public was not at the table, needless to say, and the assumption was that to the extent there was a public interest involved in intellectual property law, it was in making sure that the industries involved got their act together, so that the flow of new books and drugs and movies would continue. Members of the public, in other words, were generally thought of as passive consumers of finished products produced under a form of intra-industry regulation that rarely implicated any act that an ordinary person would want, or be able, to engage in.

In the world of the 1950s, these assumptions make some sense—though we might still disagree with the definition of the public interest. It was assumed by many that copyright need not and probably should not regulate private, noncommercial acts. The person who lends a book to a friend or takes a chapter into class is very different from the company with a printing press that chooses to reproduce ten thousand copies and sell them. The photocopier and the VCR make that distinction fuzzier, and the networked computer threatens to erase it altogether.

So how are things different today? If you are a person who routinely uses computers, the Internet, or digital media, imagine a day when you do not create—intentionally and unintentionally—hundreds of temporary, evanescent copies. (If you doubt this, look in the cache of your browser.) Is there a day when you do not “distribute” or retransmit fragments of articles you have read, when you do not seek to share with friends some image or tune? Is there a day when you do not rework for your job, for your class work, or simply for pastiche or fun, some of the digital material around you? In a networked society, copying is not only easy, it is a necessary part of transmission, storage, caching, and, some would claim, even reading.<sup>36</sup>

As bioinformatics blurs the line between computer modeling and biological research, digital production techniques blur the lines between listening, editing, and remaking. “Rip, mix, and burn,” says the Apple advertisement. It

marks a world in which the old regime of intellectual property, operating upstream as a form of industrial competition policy, has been replaced. Intellectual property is now in and on the desktop and is implicated in routine creative, communicative, and just plain consumptive acts that each of us performs every day. Suddenly, the triggers of copyright—reproduction, distribution—can be activated by individual footsteps.

Of course, we would hope that in your daily actions you scrupulously observed the rights—all the rights—of the companies that have interests in the texts, tunes, images of celebrities, trademarks, business method patents, and fragments of computer code you dealt with. Did you? Can you be sure? I teach intellectual property, but I admit to some uncertainty.

I would not have imagined that a temporary image of a Web page captured in the cache of my browser counted as a “copy” for the purposes of copyright law.<sup>37</sup> I would have thought that it was fair use for a company to photocopy articles in journals it subscribed to, and paid for, in order to circulate them to its researchers.<sup>38</sup> If a conservative Web site reposted news articles from liberal newspapers with critical commentary, that, too, would have seemed like fair use.<sup>39</sup> I would have thought that it was beneficial competition, and not a trespass, for an electronic “aggregator” to gather together auction prices or airline fares, so as to give consumers more choice.<sup>40</sup> I would not have thought that a search engine that catalogued and displayed in framed format the digital graphics found on the Internet would be sued for infringing the copyrights of the owners of those images.<sup>41</sup> I would not have thought that I might be sued for violating *intellectual property law* if I tried to compete with a printer company by making toner cartridges that were compatible with its printers.<sup>42</sup>

The examples go on. I know that the “research exemption” in U.S. patent law is very tightly limited, but I would have laughed if you had told me that even a research university was forbidden from doing research unless that research had no conceivable practical or academic worth—in other words that even in academia, in a project with no commercial goal, the research exemption only covered research that was completely pointless.<sup>43</sup> Why have an exemption at all, in that case? I would have told an academic cryptography researcher that he need not fear legal threats from copyright owners simply for researching and publishing work on the vulnerabilities of copy protection schemes.<sup>44</sup> I would not have thought that one could patent the idea of having an electronic Dutch auction on the Internet, working out the daily prices of a bundle of mutual funds through simple arithmetic, or buying something online with one click.<sup>45</sup> I would have assumed that celebrities’ rights to control

their images should end with their deaths, and that courts would agree that those rights were tightly limited by the First Amendment. Yet, in each of these cases, I would have been wrong, or at least I *might* be wrong—enough that a sane person would worry. Not all of the expansive claims eventually triumphed, of course, but some did. Guessing which would and which would not was hard even for me, though, as I said, I teach intellectual property law. You, probably, do not.

In 1950 none of this would have mattered. Unless you were in some related business—as a publisher, broadcaster, film distributor, or what have you—it would have been hard for you to trigger the rules of intellectual property law. If you were in such a business, you were probably very familiar with the rules that governed your activities and well represented by corporate counsel who knew them even better. What's more, the rules were neither as complex nor as counterintuitive as they are now. They also did not reach as far. The reach of the rights has been expanded, and their content made more difficult to understand, at the exact moment that their practical effect has been transformed. It is not merely that the triggers of intellectual property law can easily be set off by individual footsteps. There are now many more triggers and their trip wires are harder to see.

From the point of view of the content industries, of course, all this is foolishness. It is not some undesirable accident that intellectual property has come to regulate personal, noncommercial activity. It is absolutely necessary. Think of Napster. When individuals engaging in noncommercial activity have the ability to threaten the music or film industry's business plan by engaging in the very acts that copyright law always regulated—namely reproduction and distribution—of course it is appropriate for them, and the networks they “share” on, to be subject to liability. What's more, to the extent that copying becomes cheaper and easier, it is necessary for us to strengthen intellectual property rights. We must meet the greater danger of copying with more expansive rights, harsher penalties, and expanded protections, some of which may indeed have the practical effect of reducing rights that citizens thought they had, such as fair use, low-level noncommercial sharing among personal friends, resale, and so on. Without an increase in private property rights, in other words, cheaper copying will eat the heart out of our creative and cultural industries. I call this claim the Internet Threat.