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An Evidence-Free Zone

Perhaps some of the arguments in this book have convinced you. Perhaps it is a mistake to think of intellectual property in the same way we think of physical property. Perhaps limitations and exceptions to those rights are as important as the rights themselves. Perhaps the public domain has a vital and tragically neglected role to play in innovation and culture. Perhaps relentlessly expanding property rights will not automatically bring us increased innovation in science and culture. Perhaps the second enclosure movement is more troubling than the first. Perhaps it is unwise to extend copyright again and again, and to do so retrospectively, locking up most of twentieth-century culture in order to protect the tiny fragment of it that is still commercially available. Perhaps technological improvements bring both benefits and costs to existing rights holders—both of which should be considered when setting policy. Perhaps we need a vigorous set of internal limitations and exceptions within copyright, or control over content will inevitably become control over the medium of transmission. Perhaps the Internet should make us think seriously about the power of nonproprietary and distributed production.

Saying all this gives us some guidance in how we should think. It points out certain patterns of error. But its prescriptions are not simple. Precisely because it is not a rejection of intellectual property rights, but rather a claim that they only work well through a process of consciously balancing openness and control, public domain and private right, it still leaves open the question of where that point of balance is and how to strike it.

In this chapter I want to offer a suggestion that in any other field would be stunningly obvious, boring even, but in the funhouse mirror of intellectual property appears revolutionary. We should make our policy based on empirical evidence of its likely effects and there should be a formal requirement of empirical reconsideration of those policies after they have been implemented to see if they are working. Why is this a good idea?

Imagine a process of reviewing prescription drugs that goes like this: representatives from the drug company come to the regulators and argue that their drug works well and should be approved. They have no evidence of this beyond a few anecdotes about people who want to take it and perhaps some very simple models of how the drug might affect the human body. The drug is approved. No trials, no empirical evidence of any kind, no follow-up. Or imagine a process of making environmental regulations in which there were no data, and no attempts to gather data, about the effects of the particular pollutants being studied. Even the harshest critics of regulation would admit we generally do better than this. But this is often the way we make intellectual property policy.

So how do we decide the ground rules of the information age? Representatives of interested industries come to regulators and ask for another heaping slice of monopoly rent in the form of an intellectual property right. They have doom-laden predictions, they have anecdotes, carefully selected to pluck the heartstrings of legislators, they have celebrities who testify—often incoherently, but with palpable charisma—and they have very, very simple economic models. The basic economic model here is “If you give me a larger right, I will have a larger incentive to innovate. Thus the bigger the rights, the more innovation we will get. Right?”

As I have tried to show here using the words of Jefferson and Macaulay and examples such as term extension, software copyrights, and garage door openers, this logic is fallacious. Even without data, the “more is better” idea is obviously flawed. Copyrighting the alphabet will not produce more books. Patenting $E=mc^2$ will not yield more scientific innovation. Intellectual property creates barriers to, as well as incentives toward, innovation. Jefferson agonized over

the issue of when the benefits exceed the costs of a new right. “I know well the difficulty of drawing a line between the things which are worth to the public the embarrassment of an exclusive patent, and those which are not.” It is not clear that contemporary policy makers approach issues with anything like the same sophistication or humility. But it would be an equal mistake to conclude, as some do, that expansions of intellectual property are never justified. Extensions of rights can help or hurt, but without economic evidence beforehand and review afterward, we will never know. This point should be obvious, banal, even deeply boring, but sadly it is not.

From Jefferson and Macaulay and Adam Smith, I derived a second point. In the absence of evidence on either side, the presumption should be against creating a new, legalized monopoly. The burden of proof should lie on those who claim, in any particular case, that the state should step in to stop competition, outlaw copying, proscribe technology, or restrict speech. They have to show us that the existing protection is not enough. But this presumption is a second-best solution and the empirical emptiness of the debates frustrating.

This makes an occasion where there *is* some evidence a time for celebration. What we need is a test case in which one country adopts the proposed new intellectual property right and another similarly situated country does not, and we can assess how they are both doing after a number of years.

There is such a case. It is the “database right.”

OWNING FACTS?

Europe adopted a Database Directive in 1996 which gave a high level of copyright protection to databases and conferred a new “*sui generis*” database right even on unoriginal compilations of facts. In the United States, by contrast, in a 1991 case called *Feist Publications, Inc. v. Rural Telephone Service Co.*, 499 U.S. 340 (1991), the Supreme Court made it clear that unoriginal compilations of facts are not copyrightable.

What does all this mean? Take the phone directory—that was the product at issue in the *Feist* case. A white pages directory is a database of names and numbers, compiled in alphabetical order by name. Does anyone have an intellectual property right over it? Not the particular dog-eared directory lying next to your phone. Does the phone company that compiled it own the facts, the numbers inside that directory? Could they forbid me from copying them, adding others from surrounding areas, and issuing a competing directory that I believed consumers would find more valuable? This was an important issue

for *Feist* because it went to the heart of their business. They issued regional telephone directories, combining records from multiple phone companies. In this case, all the other companies in the region agreed to license their data to *Feist*. Rural did not, so *Feist* copied the information, checked as many entries as possible, adding addresses to some of the listings, and published the combined result. Rural sued and lost. The Supreme Court declared that mere alphabetical listings and other unoriginal assemblies of data cannot be copyrighted.

It may seem unfair that much of the fruit of the compiler's labor may be used by others without compensation. As Justice Brennan has correctly observed, however, this is not "some unforeseen byproduct of a statutory scheme." It is, rather, "the essence of copyright," and a constitutional requirement. The primary objective of copyright is not to reward the labor of authors, but "to promote the Progress of Science and useful Arts." To this end, copyright assures authors the right to their original expression, but encourages others to build freely upon the ideas and information conveyed by a work. This principle, known as the idea/expression or fact/expression dichotomy, applies to all works of authorship. As applied to a factual compilation, assuming the absence of original written expression, only the compiler's selection and arrangement may be protected; the raw facts may be copied at will. This result is neither unfair nor unfortunate. It is the means by which copyright advances the progress of science and art.¹

Feist was not as revolutionary as some critics claimed it to be. Most of the appeals courts in the United States had long held this to be the case. As the Court pointed out in the passage above, it is a fundamental tenet of the U.S. intellectual property system that neither facts nor ideas can be owned. *Feist* merely reiterated that point clearly and stressed that it was not just a policy choice, it was a constitutional requirement—a limit imposed by the Constitution's grant of power to Congress to make copyright and patent laws.

Daily politics cares little for the limitations imposed by constitutions or for the structural principle the Court describes—that we should leave facts free for others to build upon. Since 1991, a few database companies have lobbied the Congress strenuously and continuously to create a special database right over facts. Interestingly, apart from academics, scientists, and civil libertarians, many database companies, and even those well-known property haters, the U.S. Chamber of Commerce, oppose the creation of such a right. They believe that database providers can adequately protect themselves with contracts or technical means such as passwords, can rely on providing tied services, and so on. Moreover, they argue that strong database protection may make it

harder to generate databases in the first place; the facts you need may be locked up. We need to focus on the inputs as well as the outputs of the process—a point I have tried to make throughout this book. The pressure to create a new right continues, however, aided by cries that the United States must “harmonize” with Europe, where, you will remember, compilations of facts are strongly protected by intellectual property rights, even if their arrangement is unoriginal.

So here we have our natural experiment. One major economy rejects such protection and resists pressure to create a new right. A different major economic region, at a comparable level of development, institutes the right with the explicit claim that it will help to produce new databases and make that segment of the economy more competitive. Presumably government economists in the United States and the European Union have been hard at work ever since, seeing if the right actually worked? Well, not exactly.

Despite the fact that the European Commission has a legal obligation to review the Database Directive for its effects on competition, it was more than three years late issuing its report. At first, during the review process, no attention was paid to the actual evidence of whether the Directive helps or hurts the European Union, or whether the database industry in the United States has collapsed or flourished. That is a shame, because the evidence was there and it was fairly shocking. Yet finally, at the end of the process, the Commission did turn to the evidence, as I will recount, and came to a remarkable conclusion—which was promptly stifled for political reasons. But we are getting ahead of ourselves.

How do we frame the empirical inquiry? Intellectual property rights allow the creation of state-backed monopolies, and “the general tendency of monopolies,” as Macaulay pointed out, is “to make articles scarce, to make them dear, and to make them bad.” Monopolies are an evil, but they must sometimes be accepted when they are necessary to the production of some good, some particular social goal. In this case, the “evil” is obviously going to be an increase in the price of databases and the legal ability to exclude competitors from their use—that, after all, is the point of granting the new right. This right of exclusion may then have dynamic effects, hampering the ability of subsequent innovators to build on what went before. The “good” is that we are supposed to get lots of new databases, databases that we would not have had but for the existence of the database right.

If the database right were working, we would expect positive answers to three crucial questions. First, has the European database industry’s rate of

growth increased since 1996, while the U.S. database industry has languished? (The drop-off in the U.S. database industry ought to be particularly severe after 1991 if the proponents of database protection are correct; they argued the *Feist* case was a change in current law and a great surprise to the industry.)

Second, are the principal beneficiaries of the database right in Europe producing databases they would not have produced otherwise? Obviously, if a society is handing over a database right for a database that would have been created anyway, it is overpaying—needlessly increasing prices for consumers and burdens for competitors. This goes to the design of the right—has it been crafted too broadly, so that it is not being targeted to those areas where it is needed to encourage innovation?

Third, and this one is harder to judge, is the new right promoting innovation and competition rather than stifling it? For example, if the existence of the right allowed a one-time surge of newcomers to the market who then use their rights to discourage new entrants, or if we promoted some increase in databases but made scientific aggregation of large amounts of data harder overall, then the database right might actually be stifling the innovation it is designed to foment.

Those are the three questions that any review of the Database Directive must answer. But we have preliminary answers to those three questions and they are either strongly negative or extremely doubtful.

Are database rights necessary for a thriving database industry? The answer appears to be no. In the United States, the database industry has grown more than twenty-five-fold since 1979 and—contrary to those who paint the *Feist* case as a revolution—for that entire period, in most of the United States, it was clear that unoriginal databases were not covered by copyright. The figures are even more interesting in the legal database market. The two major proponents of database protection in the United States are Reed Elsevier, the owner of Lexis, and Thomson Publishing, the owner of Westlaw. Fascinatingly, both companies made their key acquisitions in the U.S. legal database market *after* the *Feist* decision, at which point no one could have thought unoriginal databases were copyrightable. This seems to be some evidence that they believed they could make money even without a database right. How? In the old-fashioned way: competing on features, accuracy, tied services, making users pay for entry to the database, and so on.

If those companies believed there were profits to be made, they were right. Jason Gelman, a former Duke student, pointed out in a recent paper that Thomson's legal regulatory division had a profit margin of over 26 percent for

the first quarter of 2004. Reed Elsevier's 2003 profit margin for LexisNexis was 22.8 percent. Both profit margins were significantly higher than the company average and both were earned primarily in the \$6 billion U.S. legal database market, a market which is thriving without strong intellectual property protection over databases. (First rule of thumb for regulators: when someone with a profit margin over 20 percent asks you for additional monopoly protection, pause before agreeing.)

What about Europe? There is some good news for the proponents of database protection. As Hugenholtz, Maurer, and Onsrud point out in a nice article in *Science* magazine, there was a sharp, one-time spike in the number of companies entering the European database market immediately following the implementation of the Directive in member states.² Yet their work, and "Across Two Worlds,"³ a fascinating study by Maurer, suggests that the rate of entry then fell back to levels similar to those before the directive. Maurer's analysis shows that the attrition rate was also very high in some European markets in the period following the passage of the directive—even with the new right, many companies dropped out.

At the end of the day, the British database industry—the strongest performer in Europe—added about two hundred databases in the three years immediately after the implementation of the directive. In France, there was little net change in the number of databases and the number of providers fell sharply. In Germany, the industry added nearly three hundred databases immediately following the directive—a remarkable surge—about two hundred of which rapidly disappeared. During the same period, the U.S. industry added about nine hundred databases. Bottom line? Europe's industry did get a one-time boost and some of those firms have stayed in the market; that is a benefit, though a costly one. But database growth rates have gone back to pre-directive levels, while the anticompetitive costs of database protection are now a permanent fixture of the European landscape. The United States, by contrast, gets a nice steady growth rate in databases without paying the monopoly cost. (Second rule of thumb for regulators: Do no harm! Do not create rights without strong evidence that the incentive effect is worth the anticompetitive cost.)

Now the second question. Is the Database Directive encouraging the production of databases we would not have gotten otherwise? Here the evidence is clear and disturbing. Again, Hugenholtz et al. point out that the majority of cases brought under the directive have been about databases that would have been created anyway—telephone numbers, television schedules, concert times. A review of more recent cases reveals the same pattern. These databases

are inevitably generated by the operation of the business in question and cannot be independently compiled by a competitor. The database right simply serves to limit competition in the provision of the information. Recently, the European Court of Justice implicitly underscored this point in a series of cases concerning football scores, horse racing results, and so on. Rejecting a protectionist and one-sided opinion from its Advocate General, the court ruled that the mere running of a business which generates data does not count as “substantial investment” sufficient to trigger the database right. It would be nice to think that this is the beginning of some skepticism about the reach of the directive. Yet the court provides little discussion of the economic reasons behind its interpretation; the analysis is merely semantic and definitional, a sharp contrast to its competition decisions.

So what kinds of creations are being generated by this bold new right? The answer is somewhere between bathos and pathos. Here are some of the wonderful “databases” that people found it worthwhile litigating over: a Web site consisting of a collection of 259 hyperlinks to “parenting resources,” a collection of poems, an assortment of advertisements, headings referring to local news, and charts of popular music. The sad list goes on and on. The European Commission might ask itself whether these are really the kind of “databases” that we need a legal monopoly to encourage and that we want to tie up judicial resources protecting. The point that many more such factual resources can be found online in the United States without any legalized database protection also seems worthy of note. At the very least, the evidence indicates that the right is drawn much too broadly and triggered too easily in ways that produce litigation but little social benefit.

Now, in one sense, these lawsuits over trivial collections of hyperlinks and headlines might be seen as irrelevant. They may indicate we are handing out rights unnecessarily—did we really need a legal monopoly, and court involvement, to get someone to compile hyperlinks on a Web page? But it is hard to see social harm. As with the patents over “sealed crustless” peanut butter sandwiches or “methods of swinging on a swing,” we may shake our heads at the stupidity of the system, but if the problems consist only of trivial creations, at least we are not likely to grieve because some vital piece of information was locked up. But we should not be so quick to declare such examples irrelevant. They tend to show that the system for drawing the boundaries of the right is broken—and that is of general concern, even if the issue at hand is not.

Finally, is the database right encouraging scientific innovation or hurting it? Here the evidence is merely suggestive. Scientists have claimed that the Euro-

pean database right, together with the perverse failure of European governments to take advantage of the limited scientific research exceptions allowed by the directive, have made it much harder to aggregate data, to replicate studies, and to judge published articles. In fact, academic scientific bodies have been among the strongest critics of database protection. But negative evidence, by its nature, is hard to produce; “show me the science that did not get done!” Certainly, both U.S. science and commerce have benefited extraordinarily from the openness of U.S. data policy. I will deal with this issue in the next part of this chapter.

If the United States does not give intellectual property protection to raw data, to facts, how is it that the database industry has managed to thrive here and to do better than in Europe, which has extremely strong protection? The economists described in Chapter 1 would surely tell us that this is a potential “public goods” problem. If it is hard to exclude others from the resource—it is cheap and easy to copy—and if the use of the resource is not “rival”—if I don’t use up your facts by consulting them—then we ought to see the kind of dystopia economists predict. What would that consist of? First it might result in underproduction. Databases with a social value higher than their cost of creation would not get made because the creator could not get an adequate return on investment. In some cases it might even lead to the reverse—overproduction, where each party creates the database for itself. We get a social overinvestment to produce the resource because there is no legal right to exclude others from it. If you gave the first creator an intellectual property right over the data, they could sell to subsequent users at a price lower than their own cost to create the database. Everyone would win. But the United States did not give the intellectual property right and yet its database industry is flourishing. There are lots of commercial database providers and many different kinds of databases. How can this be? Is the economic model wrong?

The answer to that is no, the model is not wrong. It is, however, incomplete and all too often applied in sweeping ways without acknowledging that its basic assumptions may not hold in a particular case. That sounds vague. Let me give a concrete example. Westlaw is one of the two leading legal database providers and, as I mentioned before, one of the key proponents of creating intellectual property rights over unoriginal databases. (There is considerable question whether such a law would be constitutional in the United States, but I will pass over that argument for the moment.) Westlaw’s “problem” is that much of the material that it provides to its subscribers is not covered by copyright. Under Section 105 of the U.S. Copyright Act, works of the federal

government cannot be copyrighted. They pass immediately into the public domain. Thus all the federal court decisions, from district courts all the way up to the Supreme Court, all the federal statutes, the infinite complexity of the *Federal Register*, all this is free from copyright. This might seem logical for government-created work, for which the taxpayer has already paid, but as I will explain in the next section of the chapter, not every country adopts such a policy.

West, another Thomson subsidiary that owns Westlaw, publishes the standard case reporter series. When lawyers or judges refer to a particular opinion, or quote a passage within an opinion, they will almost always use the page number of the West edition. After all, if no one else can find the cases or statutes or paragraphs of an opinion that you are referring to, legal argument is all but impossible. (This might seem like a great idea to you. I beg to differ.) As electronic versions of legal materials became more prevalent, West began getting more competition. Its competitors did two things that West found unforgivable. First, they frequently copied the text of the cases from West's electronic services, or CD-ROMs, rather than retyping them themselves. Since the cases were works of the federal government, this was perfectly legal provided the competitors did not include West's own material, such as summaries of the cases written by its employees or its key number system for finding related issues. Second, the competitors would include, within their electronic editions, the page numbers to West's editions. Since lawyers need to cite the precise words or arguments they are referring to, providing the raw opinion alone would have been all but useless. Because West's page numbers were one of the standard ways to cite case opinions, competitors would indicate where the page breaks on the printed page would have been, just as West did in its own databases.

West's reaction to all of this was exactly like Apple's reaction in the story I told in Chapter 5 about the iPod or like Rural's reaction to the copying of its phone directory. This was theft! They were freeloading on West's hard work! West had mixed its sweat with these cites, and so should be able to exclude other people from them! Since it could not claim copyright over the cases, West claimed copyright over the order in which they were arranged, saying that when its competitors provided its page numbers for citation purposes, they were infringing that copyright.

In the end, West lost its legal battles to claim copyright over the arrangement of the collections of cases and the sequence in which they were presented. The Court held that, as with the phone directory, the order in which

the cases were arranged lacked the minimum originality required to sustain a copyright claim.⁴ At this stage, according to the standard public goods story, West's business should have collapsed. Unable to exclude competitors from much of the raw material of its databases, West would be undercut by competitors. More importantly, from the point of view of intellectual property policy, its fate would deter potential investors in other databases—databases that we would lose without even knowing they could have been possible. Except that is not the way it turned out. West has continued to thrive. Indeed, its profits have been quite remarkable. How can this be?

The West story shows us three ways in which we can leap too quickly from the abstract claim that some information goods are public goods—nonexcludable and nonrival—to the claim that this particular information good has those attributes. The reality is much more complex. Type www.westlaw.com into your Internet browser. That will take you to the home page of West's excellent legal research service. Now, I have a password to that site. You probably do not. Without a password, you cannot get access to West's site at all. To the average consumer, the password acts as a physical or technical barrier, making the good "excludable"—that is, making it possible to exclude someone from it without invoking intellectual property rights. But what about competitors? They could buy access and use that access to download vast quantities of the material that is unprotected by copyright. Or could they? Again, West can erect a variety of barriers, ranging from technical limits on how much can be downloaded to contractual restrictions on what those who purchase its service can do ("No copying every federal case," for example).

Let's say the competitor somehow manages to get around all this. Let's say it somehow avoids copying the material that West does have a copyright over—such as the headnotes and case synopses. The competitor launches their competing site at lower prices amidst much fanfare. Do I immediately and faithlessly desert West for a lower-priced competitor? Not at all. First of all, there are lots of useful things in the West database that *are* covered by copyright—law review articles and certain treatises, for example. The competitor frequently cannot copy those without coming to the same sort of agreements that West has with the copyright holders. For much legal research, that secondary material is as important as the cases. If West has both, and the competitor only one, I will stick with West. Second, West's service is very well designed. (It is only their copyright policies I dislike, not the product.) If a judge cites a law review article in a case, West will helpfully provide a hyperlink to the precise section of the article she is referring to. I can click on it and

in a second see what the substance of the argument is. The reverse is true if a law review article cites a statute or a case. Cases have “flags” on them indicating whether they have been overruled or cited approvingly in subsequent decisions. In other words, faced with the competitive pressure of those who would commoditize their service and provide it at lower cost, West has done what any smart company would: added features and competed by offering a superior service. Often it has done so by “tying” its uncopyrightable data structures to its huge library of copyrighted legal material.

The company that challenged Westlaw in court was called Hyperlaw. It won triumphantly. The courts declared that federal cases and the page numbers in the West volumes were in the public domain. That decision came in 1998 and Westlaw has lobbied hard since then to reverse it by statute, to create some version of the Database Directive in the United States. To date, they have failed. The victor, Hyperlaw, has since gone out of business. Westlaw has not.

This little story contains a larger truth. It is true that innovation and information goods will, in general, tend to be less excludable and less rival than a ham sandwich, say. But, in practice, some of them will be linked or connected in their social setting to other phenomena that are highly excludable. The software can easily be copied—but access to the help lines can be restricted with ease. Audiences cannot easily be excluded from viewing television broadcasts, but advertisers can easily be excluded from placing their advertisements in those programs. The noncopyrightable court decisions are of most use when embedded within a technical system that gives easy access to other material—some of it copyrighted and all of it protected by technical measures and contractual restrictions. The music file can be downloaded; the band’s T-shirt or the experience of the live concert cannot. Does this mean that we never need an intellectual property right? Not at all. But it does indicate that we need to be careful when someone claims that “without a *new* intellectual property right I am doomed.”

One final story may drive home the point. When they read *Feist v. Rural*, law students often assume that the only reason Feist offered to license the white pages listings from Rural is because they (mistakenly) thought they were copyrighted. This is unlikely. Most good copyright lawyers would have told you at the time of the *Feist* case that the “sweat of the brow” decisions that gave copyright protection based on hard work were not good law. Most courts of appeals had said so. True, there was some legal uncertainty, and that is often worth paying to avoid. But switch the question around and suppose it is the day after the Supreme Court decides the *Feist* case, and Feist is heading off into another market to try to make a new regional phone directory. Do they

now just take the numbers without paying for them, or do they still try to negotiate a license? The latter is overwhelmingly likely. Why? Well, for one thing, they would get a computer-readable version of the names and would not have to retype or optically scan them. More importantly, the contract could include a right to immediate updates and new listings.

The day after the *Feist* decision, the only thing that had changed in the telephone directory market was that telephone companies knew for sure, rather than merely as a probability, that if they refused to license, their competitors could laboriously copy their old listings without penalty. The nuclear option was no longer available. Maybe the price demanded would be a little lower. But there would still be lots of good reasons for Feist to buy the information, even though it was uncopyrighted. You do not always need an intellectual property right to make a deal. Of course, that is not the whole story. Perhaps the incentives provided by other methods are insufficient. But in the U.S. database industry they do not seem to have been. Quite the contrary. The studies we have on the European and the American rules on database rights indicate that the American approach simply works better.

I was not always opposed to intellectual property rights over data. Indeed, in a book written before the enactment of the Database Directive, I said that there was a respectable economic argument that such protection might be warranted and that we needed research on the issue.⁵ Unfortunately, Europe got the right without the research. The facts are now in. If the European Database Directive were a drug, the government would be pulling it from the market until its efficacy and harmfulness could be reassessed. At the very least, the Commission needed a detailed empirical review of the directive's effects, and needs to adjust the directive's definitions and fine-tune its limitations. But there is a second lesson. There is more discussion of the empirical economic effects of the Database Directive in this chapter than in the six-hundred-page review of the directive that the European Commission paid a private company to conduct, and which was the first official document to consider the issue.

That seemed to me and to many other academics to be a scandal and we said so as loudly as we could, pointing out the empirical evidence suggesting that the directive was not working. Yet if it was a scandal, it was not a surprising one, because the evidence-free process is altogether typical of the way we make intellectual property policy. President Bush is not the only one to make "faith-based" decisions.

There was, however, a ray of hope. In its official report on the competitive effects of the Database Directive, the European Commission recently went

beyond reliance on anecdote and industry testimony and did something amazing and admirable. It conducted an empirical evaluation of whether the directive was actually doing any good.

The report honestly described the directive as “a Community creation with no precedent in any international convention.” Using a methodology similar to the one in this chapter on the subject, the Commission found that “the economic impact of the ‘sui generis’ right on database production is unproven. Introduced to stimulate the production of databases in Europe, the new instrument has had no proven impact on the production of databases.”⁶

In fact, their study showed that the production of databases had fallen to pre-directive levels and that the U.S. database industry, which has no such intellectual property right, was growing faster than the European Union’s. The gap appears to be widening. This is consistent with the data I had pointed out in newspaper articles on the subject, but the Commission’s study was more recent and, if anything, more damning.

Commission insiders hinted that the study may be part of a larger—and welcome—transformation in which a more professional and empirical look is being taken at the competitive effects of intellectual property protection. Could we be moving away from faith-based policy in which the assumption is that the more new rights we create, the better off we will be? Perhaps. But unfortunately, while the report was a dramatic improvement, traces of the Commission’s older predilection for faith-based policy and voodoo economics still remain.

The Commission coupled its empirical study of whether the directive had actually stimulated the production of new databases with another intriguing kind of empiricism. It sent out a questionnaire to the European database industry asking if they liked their intellectual property right—a procedure with all the rigor of setting farm policy by asking French farmers how they feel about agricultural subsidies. More bizarrely still, the report sometimes juxtaposed the two studies as if they were of equivalent worth. Perhaps this method of decision making could be expanded to other areas. We could set communications policy by conducting psychoanalytic interviews with state telephone companies—let current incumbents’ opinions determine what is good for the market as a whole. “What is your emotional relationship with your monopoly?” “I really like it!” “Do you think it hurts competition?” “Not at all!”

There are also a few places where the reasoning in the report left one scratching one’s head. One goal of the database right was to help close the gap

between the size of the European and U.S. database markets. Even before the directive, most European countries already gave greater protection than the United States to compilations of fact. The directive raised the level still higher. The theory was that this would help build European market share. Of course, the opposite is also possible. Setting intellectual property rights too high can actually stunt innovation. In practice, as the Commission's report observes, "the ratio of European / U.S. database production, which was nearly 1:2 in 1996, has become 1:3 in 2004."⁷ Europe had started with higher protection and a smaller market. Then it raised its level of protection and lost even more ground. Yet the report was oddly diffident about the possibility that the U.S. system actually works better.

In its conclusion, the report offered a number of possibilities, including repealing the directive, amending it to limit or remove the "sui generis" right while leaving the rest of the directive in place, and keeping the system as it is. The first options are easy to understand. Who would want to keep a system when it is not increasing database production, or European market share, and, indeed, might be actively harmful? Why leave things as they are? The report offers several reasons.

First, database companies want to keep the directive. (The report delicately notes that their "endorsement . . . is somewhat at odds with the continued success of U.S. publishing and database production that thrives without . . . [such] protection," but nevertheless appears to be "a political reality.") Second, repealing the directive would reopen the debate on what level of protection is needed. Third, change may be costly.

Imagine applying these arguments to a drug trial. The patients in the control group have done better than those given the drug and there is evidence that the drug might be harmful. But the drug companies like their profits and want to keep the drug on the market. Though "somewhat at odds" with the evidence, this is a "political reality." Getting rid of the drug would reopen the debate on the search for a cure. Change is costly—true. But what is the purpose of a review if the status quo is always to be preferred?

The final result? Faced with what Commission staff members tell me was a tidal wave of lobbying from publishers, the Commission quietly decided to leave the directive unchanged, despite the evidence. The result itself is not remarkable. Industry capture of a regulatory apparatus is hardly a surprise. What is remarkable is that this is one of the first times any entity engaged in making intellectual property policy on the international level has even looked seriously at the empirical evidence of that policy's effects.

To be sure, figures are thrown around in hearings. The software industry will present studies showing, for example, that it has lost billions of dollars because of illicit copying. It has indeed lost profits relative to what it could get with all the benefits of cheaper copying and transmission worldwide *and with perfect copyright enforcement as well*. (Though the methodology of some of the studies, which assumes that each copier would have paid full price—is ridiculous.) But this simply begs the question. A new technology is introduced that increases the size of your market and decreases your costs dramatically, but also increases illicit copying. Is this cause for state intervention to increase your level of rights or the funds going toward enforcement of copyright law, as opposed to any other law enforcement priority? The question for empirical analysis, both before and after a policy change, should be “Is this change necessary in order to maintain incentives for production and distribution? Will whatever benefits it brings outweigh the costs of static and dynamic losses—price increases to consumers and impediments to future innovators?” The content companies might still be able to justify the extensions of their rights. But they would be doing so in the context of a rational, evidence-based debate about the real goals of intellectual property, not on the assumption that they have a natural right to collect all the economic surplus gained by a reduction in the costs of reproduction and distribution.

DOES PUBLIC INFORMATION WANT TO BE FREE?

The United States has much to learn from Europe about information policy. The ineffectively scattered U.S. approach to data privacy, for example, produces random islands of privacy protection in a sea of potential vulnerability. Until recently, your video rental records were better protected than your medical records. Europe, by contrast, has tried to establish a holistic framework, a much more effective approach. But there are places where the lessons should flow the other way. The first one, I have suggested, is database protection. The second is a related but separate issue: the legal treatment of publicly generated data, the huge, and hugely important, flow of information produced by government-funded activities—from ordnance survey maps and weather data to state-produced texts, traffic studies, and scientific information. How is this flow of information distributed? The norm turns out to be very different in the United States and in Europe.

In one part of the world, state-produced data flows are frequently viewed as revenue sources. They are often copyrighted or protected by database rights. Many of the departments which produce them attempt to make a profit or at least to recover their entire operating costs through user fees. It is heresy to suggest that the taxpayer has already paid for the production of this data and should not have to do so twice. The other part of the world practices a benign form of information socialism. By law, any text produced by the central government is free from copyright and passes immediately into the public domain. The basic norm is that public data flows should be available at the cost of reproduction alone.

It is easy to guess which area is which. The United States is surely the profit- and property-obsessed realm, Europe the place where the state takes pride in providing data as a public service? No, actually, it is the other way around.

Take weather data. The United States makes complete weather data available to all at the cost of reproduction. If the superb government Web sites and data feeds are insufficient, for the cost of a box of blank DVDs you can have the entire history of weather records across the continental United States. European countries, by contrast, typically claim government copyright over weather data and often require the payment of substantial fees. Which approach is better? I have been studying the issue for fifteen years, and if I had to suggest a single article it would be the magisterial study by Peter Weiss called “Borders in Cyberspace,” published by the National Academies of Science.⁸ Weiss shows that the U.S. approach generates far more social wealth. True, the information is initially provided for free, but a thriving private weather industry has sprung up which takes the publicly funded data as its raw material and then adds value to it. The U.S. weather risk management industry, for example, is more than ten times bigger than the European one, employing more people, producing more valuable products, generating more social wealth. Another study estimates that Europe invests 9.5 billion Euros in weather data and gets approximately 68 billion back in economic value—in everything from more efficient farming and construction decisions to better holiday planning—a sevenfold multiplier. The United States, by contrast, invests twice as much—19 billion—but gets back a return of 750 billion Euros, a thirty-nine-fold multiplier.

Other studies suggest similar patterns elsewhere, in areas ranging from geospatial data to traffic patterns and agriculture. The “free” information flow is better at priming the pump of economic activity.

Some readers may not thrill to this way of looking at things because it smacks of private corporations getting a “free ride” on the public purse—social wealth be damned. But the benefits of open data policies go further. Every year the monsoon season kills hundreds and causes massive property damage in Southeast Asia. One set of monsoon rains alone killed 660 people in India and left 4.5 million homeless. Researchers seeking to predict the monsoon sought complete weather records from the United States and Europe so as to generate a model based on global weather patterns. The U.S. data was easily and cheaply available at the cost of reproduction. The researchers could not afford to pay the price asked by the European weather services, precluding the “ensemble” analysis they sought to do. Weiss asks rhetorically, “What is the economic and social harm to over 1 billion people from hampered research?” In the wake of the outpouring of sympathy for tsunami victims in the same region, this example seems somehow even more tragic. Will the pattern be repeated with seismographic, cartographic, and satellite data? One hopes not.

The European attitude may be changing. Competition policy has already been a powerful force in pushing countries to rethink their attitudes to government data. The European Directive on the Reuse of Public Sector Information takes large strides in the right direction, as do studies by the Organization for Economic Co-operation and Development (OECD) and several national initiatives.⁹ Unfortunately, though, most of these follow the same pattern. An initially strong draft is watered down and the utterly crucial question of whether data should be provided at the marginal cost of reproduction is fudged or avoided. This is a shame. Again, if we really believed in evidence-based policy making, the debate would be very different.

BREAKING THE DEAL

What would the debate look like if we took some of the steps I mention here? Unfortunately there are very few examples of evidence-based policy making, but the few that do exist are striking.

In 2006, the government-convened Gowers Review of intellectual property policy in the United Kingdom considered a number of proposals on changes to copyright law, including a retrospective extension of sound recording copyright terms.¹⁰ The copyright term for sound recordings in the United Kingdom is fifty years. (It is longer for compositions.) At the end of the fifty-year period, the recording enters the public domain. If the composition is also in

the public domain—the great orchestral works of Beethoven, Brahms, and Mozart, for example, or the jazz classics of the early twentieth century—then anyone can copy the recording. This means we could make it freely available in an online repository for music students throughout Britain—perhaps preparing the next generation of performers—or republish it in a digitally cleansed and enhanced edition. If the composition is still under copyright, as with much popular music, then the composer is still entitled to a licensing fee, but now any music publisher who pays that fee can reissue the work—introducing competition and, presumably, bringing down prices of the recording.

The recording industry, along with successful artists such as Sir Cliff Richard and Ian Anderson of Jethro Tull, wished to extend the fifty-year term to ninety-five years, or perhaps even longer—the life of the performer, plus seventy years. This proposal was not just for new recordings, but for the ones that have already been made.

Think of the copyright system as offering a deal to artists and record companies. “We will enlist the force of the state to give you fifty years of monopoly over your recordings. During that time, you will have the exclusive right to distribute and reproduce your recording. After that time, it is available to all, just as you benefited from the availability of public domain works from your predecessors. Will you make records under these terms?”

Obviously, fifty years of legalized exclusivity was enough of an incentive to get them to make the music in the first place. We have the unimpeachable evidence that they actually did. Now they want to change the terms of the deal retrospectively. They say this will “harmonize” the law internationally, give recordings the same treatment as compositions, help struggling musicians, and give the recording industry some extra money that it might spend on developing new talent. (Or on Porsches, shareholder dividends, and plastic ducks. If you give me another forty-five years of monopoly rent, I can spend it as I wish.)

Change the context and think about how you would react to this if the deal was presented to you personally. You hired an artist to paint a portrait. You offered \$500. He agreed. You had a deal. He painted the painting. You liked it. You gave him the money. A few years later he returned. “You owe me another \$450,” he said.

You both looked at the contract. “But you agreed to paint it for \$500 and I paid you that amount.” He admitted this was true, but pointed out that painters in other countries sometimes received higher amounts, as did sculptors in our own country. In fact, he told you, all painters in our country planned to demand another \$450 for each picture they had already painted as well as

for future pictures. This would “harmonize” our prices with other countries, put painting on the same footing as sculpture, and enable painters to hire more apprentices. His other argument was that painters often lost money. Only changing the terms of their deals long after they were struck could keep them in business. Paying the money was your duty. If you did not pay, it meant that you did not respect art and private property.

You would find these arguments absurd. Yet they are the same ones the record industry used, relying heavily on the confusions against which this book has warned. Is the record companies’ idea as outrageous as the demands of my imaginary painter? It is actually worse.

The majority of sound recordings made more than forty years ago are commercially unavailable. After fifty years, only a tiny percentage are still being sold. It is extremely hard to find the copyright holders of the remainder. They might have died, gone out of business, or simply stopped caring. Even if the composer can be found, or paid through a collection society, without the consent of the holder of the copyright over the musical recording, the work must stay in the library. These are “orphan works”—a category that probably comprises the majority of twentieth-century cultural artifacts.

Yet as I pointed out earlier, without the copyright holder’s permission, it is illegal to copy or redistribute or perform these works, even if it is done on a nonprofit basis. The goal of copyright is to encourage the production of, and public access to, cultural works. It has done its job in encouraging production. Now it operates as a fence to discourage access. As the years go by, we continue to lock up 100 percent of our recorded culture from a particular year in order to benefit an ever-dwindling percentage—the lottery winners—in a grotesquely inefficient cultural policy.

Finally, fifty years after they were made, sound recordings enter the public domain in the United Kingdom (though as I pointed out earlier, licensing fees would still be due to the composer if the work itself was still under copyright). Now anyone—individual, company, specialist in public domain material—could offer the work to the public. But not if the record companies can persuade the government otherwise. Like my imaginary painter, they want to change the terms of the deal retrospectively. But at least the painter’s proposal would not make the vast majority of paintings unavailable just to benefit a tiny minority of current artists.

The recording industry’s proposal for retrospective extension was effectively a tax on the British music-buying public to benefit the copyright holders of a tiny proportion of sound recordings. The public loses three times. It loses first

when it is forced to continue to pay monopoly prices for older, commercially available music, rather than getting the benefit of the bargain British legislators originally offered: fifty years of exclusivity, then the public domain. The public loses a second time when, as a side effect, it is denied access to commercially unavailable music; no library or niche publisher can make the forgotten recordings available again. Finally, the public loses a third time because allowing retrospective extensions will distort the political process in the future, leading to an almost inevitable legislative capture by the tiny minority who find that their work still has commercial value at the end of the copyright term they were originally granted. As Larry Lessig has pointed out repeatedly, the time to have the debate about the length of the copyright term is before we know whose works will survive commercially.

The whole idea is very silly. But if this is the silly idea we wish to pursue, then simply increase the income tax proportionately and distribute the benefits to those record companies and musicians whose music is still commercially available after fifty years. Require them to put the money into developing new artists—something the current proposal does not do. Let all the other recordings pass into the public domain.

Of course, no government would consider such an idea for a moment. Tax the public to give a monopoly windfall to those who already hit the jackpot, because they claim their industry cannot survive without retrospectively changing the terms of its deals? It is indeed laughable. Yet it is a far better proposal than the one that was presented to the Gowers Review.

What happened next was instructive. The Review commissioned an economic study of the effects of copyright term extension—both prospective and retrospective—on recorded music from the University of Cambridge's Centre for Intellectual Property and Information Law. The resulting document was a model of its kind.¹¹

With painstaking care and a real (if sometimes fruitless) attempt to make economic arguments accessible to ordinary human beings, the study laid out the costs and benefits of extending the copyright term over sound recordings. It pointed out that the time to measure the value of a prospective term extension is at the moment the copyright is granted. Only then does it produce its incentive effects. The question one must ask is how much value today does it give an artist or record company to have their copyright extended by a year at the end of the existing period of protection. Then one must look to see whether the benefits of the added incentive outweigh the social costs it imposes. To put it another way, if the state were selling today the rights to have protection from year fifty to

year ninety-five, how much would a rational copyright holder pay, particularly knowing that there is only a small likelihood the work will even be commercially available to take advantage of the extension? Would that amount be greater than the losses imposed on society by extending the right?

Obviously, the value of the extension is affected by our “discount rate”—the annual amount by which we must discount a pound sterling in royalties I will not receive for fifty-one years in order to find its value now. Unsurprisingly, one finds that the value of that pound in the future is tiny at the moment when it matters—today—in the calculation of an artist or distributor making the decision whether to create. Conservative estimates yield a present value between 3 percent and 9 percent of the eventual amount. By that analysis, a pound in fifty years is worth between three and nine pence to you today, while other estimates have the value falling below one penny. This seems unlikely to spur much creativity at the margin. Or to put it in the more elegant language of Macaulay, quoted in Chapter 2:

I will take an example. Dr. Johnson died fifty-six years ago. If the law were what my honourable and learned friend wishes to make it, somebody would now have the monopoly of Dr. Johnson’s works. Who that somebody would be it is impossible to say; but we may venture to guess. I guess, then, that it would have been some bookseller, who was the assign of another bookseller, who was the grandson of a third bookseller, who had bought the copyright from Black Frank, the Doctor’s servant and residuary legatee, in 1785 or 1786. Now, would the knowledge that this copyright would exist in 1841 have been a source of gratification to Johnson? Would it have stimulated his exertions? Would it have once drawn him out of his bed before noon? Would it have once cheered him under a fit of the spleen? Would it have induced him to give us one more allegory, one more life of a poet, one more imitation of Juvenal? I firmly believe not. I firmly believe that a hundred years ago, when he was writing our debates for the Gentleman’s Magazine, he would very much rather have had twopence to buy a plate of shin of beef at a cook’s shop underground.¹²

The art form is different, but the thought of a 1960s Cliff Richard or Ian Anderson being “cheered under a fit of the spleen” by the prospect of a copyright extension fifty years hence is truly a lovely one.

Considering all these factors, as well as the effects on investment in British versus American music and on the balance of trade, the Cambridge study found that the extension would cost consumers between 240 and 480 million pounds, far more than the benefits to performers and recording studios. (In practice, the report suggested, without changes in the law, most of the benefits would not

have gone to the original recording artist in any case.) It found prospective extension led to a clear social welfare loss. What of retrospective extension?

The report considered, and found wanting, arguments that retrospective extension is necessary to encourage “media migration”—the digitization of existing works, for example. In fact, most studies have found precisely the reverse—that public domain works are more available and more frequently adapted into different media. (Look on Amazon.com for a classic work that is out of copyright—*Moby-Dick*, for example—and see how many adaptations and formats are available.) It also rejected the argument that harmonization alone was enough to justify extension—retrospective or prospective—pointing out the considerable actual variation in both term and scope of rights afforded to performers in different countries. Finally, it warned of the “hidden ‘ratcheting’ effect of harmonisation which results from the fact that harmonisation is almost invariably upwards.” Its conclusion was simple:

[R]etrospective term extensions **reduce** social welfare. Thus, in this case, it would seem that basic theory alone is sufficient to provide strong, and unambiguous, guidance for policy-makers. . . . We therefore see no reason to quarrel with the consensus of the profession on this issue which as summed up by Akerlof et al. . . . [states] categorically that . . . “[retrospective] extension provides essentially no incentive to create new works. Once a work is created, additional compensation to the producer is simply a windfall.”¹³

The Gowers Review agreed. Its fourth recommendation read simply, “Policy makers should adopt the principle that the term and scope of protection for IP rights should not be altered retrospectively.” Perhaps more important, though, was the simple paragraph at the front of the document captioned “The Approach of the Review.” It begins thus: “The Review takes an evidence-based approach to its policy analysis and has supplemented internal analysis by commissioning external experts to examine the economic impact of changes. . . .”

Why specify that one was taking an “evidence-based” approach? At first, the comment seems unnecessary. What other approach would one take? Anecdotal? Astrological? But there is a framework in which empirical evidence of the effects of policy simply seems irrelevant—one based on natural right. When the Review was given to the House of Commons Select Committee on Culture, Media and Sport, that frame of mind was much in evidence:

The Gowers Review undertook an extensive analysis of the argument for extending the term. On economic grounds, the Review concluded that there was little

evidence that extension would benefit performers, increase the number of works created or made available, or provide incentives for creativity; and it noted a potentially negative effect on the balance of trade. . . . Gowers's analysis was thorough and in economic terms may be correct. It gives the impression, however, of having been conducted *entirely* on economic grounds. We strongly believe that copyright represents a moral right of a creator to choose to retain ownership and control of their own intellectual property. We have not heard a convincing reason why a composer and his or her heirs should benefit from a term of copyright which extends for lifetime and beyond, but a performer should not. . . . Given the strength and importance of the creative industries in the U.K., it seems extraordinary that the protection of intellectual property rights should be weaker here than in many other countries whose creative industries are less successful.¹⁴

A couple of things are worth noting here. The first is that the Committee is quite prepared to believe that the effects of term extension would not benefit performers or provide incentives for creativity, and even to believe that it would hurt the balance of trade. The second is the curious argument in the last sentence. Other countries have stronger systems of rights and are less successful. We should change our regime to be more like them! Obviously the idea that a country's creative industries might be less successful *because* their systems of rights were stronger does not occur to the Committee for a moment. Though it proclaims itself to be unaffected by economic thought, it is in fact deeply influenced by the "more rights equals more innovation" ideology of maximalism that I have described in these pages.

Nestling between these two apparently contradictory ideas is a serious argument that needs to be confronted. Should we ignore evidence—even conclusive evidence—of negative economic effects, harm to consumers, and consequences for the availability of culture because we are dealing with an issue of moral right, almost natural right? Must we extend the rights of the artists who recorded those songs (or rather the record companies who immediately acquired their copyrights) because they are simply *theirs* as a matter of natural justice? Do performers have a natural right to recorded songs either because they have labored on them, mixing their sweat with each track, or because something of their personality is forever stamped into the song? Must we grant an additional forty-five years of commercial exclusivity, not because of economic incentive, but because of natural right?

Most of us feel the pull of this argument. I certainly do. But as I pointed out in Chapter 2, there are considerable problems with such an idea. First, it runs against the premises of actual copyright systems. In the United States, for

example, the Constitution resolutely presents the opposite picture. Exclusive rights are to encourage progress in science and the useful arts. The Supreme Court has elaborated on this point many times, rejecting both labor-based “sweat of the brow” theories of copyright and more expansive visions based on a natural right to the products of one’s genius—whether inventions or novels. Britain, too, has a history of looking to copyright as a utilitarian scheme—though with more reference to, and legal protection of, particular “moral rights” than one finds in the United States. But even in the most expansive “moral rights” legal systems, even in the early days of debate about the rights of authors after the French Revolution, it is accepted that there are temporal limits on these rights. If this is true of authors, it is even more true of performers, who are not granted the full suite of author’s rights in moral rights jurisdictions, being exiled to a form of protection called “neighboring” rights.

In all of these schemes, there are time limits on the length of the rights (and frequently different ones for different creators—authors, inventors, performers, and so on). Once one has accepted that point, the question of how long they should be is, surely, a matter for empirical and utilitarian analysis. One cannot credibly say that natural rights or the deep deontological structure of the universe gives me a right to twenty-eight or fifty-six or seventy years of exclusivity. The argument must turn instead to a question of consequences. Which limit is better? Once one asks that question, the Gowers Review’s economic assessment is overwhelming, as the Select Committee itself recognized. In the end, the government agreed—noting that a European Union study had found precisely the same thing. The sound recording right should not be extended, still less extended retrospectively. The evidence-free zone had been penetrated. But not for long. As this book went to press, the European Commission announced its support for an even longer Europe-wide extension of the sound recording right. The contrary arguments and empirical evidence were ignored, minimized, explained away. How can this pattern be broken?

In the next and final chapter, I try to answer that question. I offer a partial explanation for the cognitive and organizational blindnesses that have brought us to this point. I argue that we have much to learn from the history, theory, and organizational practices of the environmental movement. The environmental movement taught us to see “the environment” for the first time, to recognize its importance, and to change the way we thought about ecology, property, and economics in consequence. What we need is an environmentalism of mind, of culture, of information. In the words of my colleague David Lange, we need to “recognize the public domain.” And to save it.