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Keith N. Hylton

Boston University School of Law

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Roger Blair and Intellectual Property

Keith N. Hylton*

Abstract
Although intellectual property is just a sidelight of Roger Blair’s work, he has published at least seven articles and coauthored a book on this subject. Blair’s work sets out robust economic models that address nearly all of the significant economic issues in intellectual property. Moreover, by using the property rules framework, he has offered a useful counterweight to the reward-to-loss theory that dominates the literature.

Keywords
intellectual property, property rules, reward-loss ratio, static cost, monopolization, dynamic cost, compensation, restitution, patent infringement damages

I have taken it upon myself to review some of Roger’s work in the intellectual property/antitrust area. This may seem a strange choice given Roger’s focus on antitrust; indeed, there are few topics in antitrust on which Roger has not published at least one article. Even such remote subfields as “empirical analysis of antitrust” have not escaped Roger’s reach; he and I worked closely together on producing a special issue for the Antitrust Law Journal on this topic. But intellectual property is an area that has fascinated me for some time, and so I thought it would be useful for me, from a purely selfish perspective, to review some of the lessons I have learned, or should have learned, from Roger in this field.

Although intellectual property is just a sidelight of Roger’s work, he has published at least seven articles and coauthored a book on this subject, which I think puts him far ahead of most professors


*Boston University School of Law, Boston, MA, USA

Corresponding Author:
Keith N. Hylton, Boston University School of Law, Boston, MA 02215, USA.
Email: knhylton@bu.edu

Like much of Roger’s work, this is a book that sets out robust economic models that address nearly all of the significant economic issues in intellectual property. There is no attempt in Roger’s work to hurriedly push the reader toward some particular normative conclusion. He sets out the model and lets the model point toward conclusions.

I did not use the adjective “robust” in describing Roger’s models as a throwaway compliment. In many if not most economic models one finds today, the authors tend to use rather arcane symbols and expressions. The model appears to be specific to the author and topic. This is not true of Roger’s work: his models draw directly on basic concepts in economics, such as marginal cost, marginal revenue, and so on. These are models that advance instruction in economics while also shedding light on important practical issues. You can use these models to introduce students to the significant economic issues in the areas they address.

For much of this discussion I will refer to “Roger Blair’s work,” though very often I mean the joint work of Blair and Cotter. Hopefully it will save space and is not too much of a distortion. Since I will focus on the economics more than law, I assume Roger’s share of the joint work was greater than 50%.

I should start with a little background on the recent intellectual history of intellectual property law scholarship. As Blair and Cotter note at the start of their book, intellectual property law was a bit of an academic backwater until recently. Innovation has been a serious topic of research in economics departments for a long time, with important work done by established names such as Arrow and Nordhaus. Intellectual property law, in contrast, traditionally has dealt with narrow legal issues, such as the doctrine of equivalents, and the patent cases focus on so many technical details that no one would consider suggesting that first-year law students, or other nonspecialists, be exposed to them. For example, in Bessen and Meurer’s interesting book on patent law, they include an example of a simple dispute over patent scope as an illustration of the degree of unpredictability one typically finds in litigated patent cases. The case involves the scope of a patent for a new type of frame, used for mounting fabric on a wall, a rather mundane technology. The question was whether the patentee’s frame, which consisted of ready-made right-angle portions that could be joined with straight portions, preempted the alleged infringer’s frame, which consisted of portions with a 45 degree cut on one end and other portions that were straight on both ends. Obviously, both framing systems performed the same function, and anyone who had observed the patented frame could have easily thought of the allegedly infringing system as an alternative. Still, the court found that there was no infringement. This example gets across the point that patent disputes are hard to predict but also illustrates the sort of dry, technical problems courts analyze in many patent cases. Beyond general concepts such as obviousness, it is hard on the basis of many patent disputes to point to any prescriptive rules of law that could be taught to a student, and even fewer attract the attention of anyone who is not studying to become a patent lawyer. Tort law, by comparison, often generates rules that catch the attention of the general student and could even attract the attention of a nonstudent—for example, the famous (or infamous) doctrine that there is no duty under tort law to rescue a person in danger of harm. But patent law almost never generates the sort of rule that would capture the interest of a nonspecialist.

As Blair and Cotter note, times have changed. Now, it is not unusual to hear calls for reforming the first-year law school curriculum to include intellectual property. It is a growth area of legal

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5. Id. at 59–60.
The growth of the high-technology sector has drawn lawyers into the intellectual property field, scholars have flocked to the area too. It happens that scholars, like lawyers, and like bank robbers such as Willie Sutton, go to where the money is. As students have flocked to intellectual property, legal scholars in the field have seen the value of their work increase, in the form of citations from the hordes of students writing law review notes and citing the work of incumbent intellectual property professors. One other feature that has unquestionably had an effect is that the cases today often involve cutting-edge technologies that people understand will affect their lives now or in the future. Teaching cases involving cutting-edge technologies enables the intellectual property teacher to gain conversant knowledge about those technologies, which makes the teacher seem considerably smarter than the average law professor.

Has all of this growth in academic interest changed intellectual property law? I think so, but some of the major changes are of questionable social value. As intellectual property has drawn more attention from scholars, the view that it is a form of zero-sum rent seeking has also grown in followership. Kenneth Dam noted in a review of the field many years ago that the notion that intellectual property is a form of monopolization is an academic concept that expanded in general acceptance over the mid-1900s, 7 with the Supreme Court increasingly shifting from a view of intellectual property as a form of property, as reflected in Bement v. National Harrow, 8 to intellectual property as a form of monopolization, as reflected in FTC v. Actavis. 9 The comparison between Bement and Actavis also reveals the impact of academic thinking: Bement contains no references to legal academic writing, while Actavis relies heavily on such writing to justify the majority opinion’s position that reverse payment settlements of patent infringement lawsuits constitute an especially harmful form of monopolization.

Economic analysis of intellectual property has, it seems, increasingly stressed the monopolization view. For example, in one paper on the scope of intellectual property that is arguably representative of much of the modern economic literature, by Richard Gilbert and Carl Shapiro, 10 the authors describe the optimal patent policy as one that minimizes the social loss for a given level of profit from the patent. This is the reward-to-loss ratio approach that one observes in much of the literature on patents and antitrust.

I think the reward-to-loss ratio approach is flawed, but I will save my criticisms for later. At this stage I should return to Blair and Cotter’s book. Blair and Cotter appear to implicitly adopt the reward-to-loss ratio approach in their most basic economic model of patent incentives. However, I do not think that they thoroughly embrace this approach, because they also note that one of the functions of patent law is to stimulate more innovation and that the fundamental trade-off is between stimulating innovation and minimizing static monopolization costs. Still, their analysis of patentee incentives, which emphasizes the profits to the patentee rather than the social benefit from invention, suggests an implicit endorsement of the reward-to-loss ratio theory. That theory leads, as Blair and Cotter note, to

8. 186 U.S. 70 (1902).
suggestions that patent protection be reduced whenever doing so would lead to a small loss in patentee profit in exchange for a relatively large gain in consumer welfare. I think this is a not entirely correct view of the economics of intellectual property, a point that I shall return to later.

The other key feature of the economic framework they adopt is the “property rules versus liability rules” framework. The value of this framework is that it helps Blair and Cotter from falling into the simplistic view that intellectual property rights should be weakened in order to enhance consumer welfare.

Under the property and liability rules framework, as expounded by Calabresi and Melamed, property rules are preferable where transaction costs are low, and liability rules are otherwise preferable. Property rules are legal doctrines, such as trespass, that enjoin takings of property, or have the effect of enjoining such takings. Liability rules, in contrast, merely require the taking party to pay damages for the loss suffered by the victim. Property rules are socially preferable when transaction costs are low because they induce parties to arrange consensual transactions. Consensual transactions are preferable to takings because they avoid the administrative costs generated by takings, and they protect the subjective valuations of the holders of entitlements.

Blair and Cotter apply this framework to intellectual property law. If a firm (a patent implementer or, equivalently, potential patent licensee) is thinking of infringing an existing patent of which it is aware, it can easily negotiate with the patentee to gain lawful use of the patent. Transaction costs are relatively low. The property rule would encourage negotiation. A liability rule, on the other hand, might not encourage negotiation, depending on how remedies are structured.

Monetary remedies can be designed to mimic the incentives under the property rule. If the penalty is set to eliminate the gain from infringement, the implementer will decide not to infringe; it will negotiate for lawful use. The obvious monetary remedy for this purpose is one that eliminates the expectation of gain from infringement. Thus, a remedy equal to the profit attributable to infringement divided by the probability of liability would be appropriate. This is the preferred remedy of Blair and Cotter.

As Blair and Cotter note, such gain-eliminating or restitutionary penalties were once common in patent law but are not today. The reason is because the patent statute was amended in 1946 and the Supreme Court later interpreted the amended statute to preclude restitutionary damages, limiting patentees to compensatory damages. Kenneth Dam criticized this decision but also noted that it was not a major change because patentees could still seek injunctions. Dam’s assessment came well before the Supreme Court’s eBay Inc. v. MercExchange, L.L.C., which limited the power of patentees to obtain injunctions.

In any event, Blair and Cotter argue that it follows from their model that the restitutionary remedy should be available for the typical low-transaction-cost-setting infringement. They also note that the alternative to compensatory damages—damages set at the level of a reasonable royalty—may provide a substitute to the restitutionary remedy. From there they go into an analysis of the remedies currently provided by the law and the extent to which they fall short of what their model recommends. They also examine the difficulties presented by any effort to adopt the remedy structure suggested by the model.

12. Id.
15. Dam, supra note 7.
This analysis of remedies is representative of the typically solid and informative law and economics scholarship of Roger Blair. A student of intellectual property law who wanted to learn about remedies in patent law would benefit greatly from starting with Blair and Cotter, rather than with a standard law textbook. Their book presents a straightforward analysis of the economic problems, with clear recommendations. Their recommendations lead to a straightforward positive analysis and critique of the law. Learning from Blair and Cotter would be preferable to simply reading about the remedies offered under patent law, because reading about the remedies would give one no reason to think that they should be different in any form from what they are. But the student who wants to learn about an area of law should be armed with some framework for envisioning what the law should be, in order to better understand what the law is and, perhaps, why it is as it is.

Blair and Cotter do not openly address why the patent statute was amended to limit monetary remedies to compensatory damages or a reasonable royalty—that is, to eliminate the restitutionary remedy. But they say enough to allow one to infer the probable public choice basis for the amendment. Blair and Cotter note that the legislative history referred to difficulties in calculating restitutionary remedies. They agree that calculating such remedies may be difficult in particular cases but also note that there are other cases in which such calculation would not be difficult. The remaining inferences are left to the reader.

A statute that gets passed by Congress is going to reflect the aims of pressure groups attempting to shape the statute. As Ron Cass and I note in our book on intellectual property, the legislative arena has offered a fertile ground for rent seeking in the intellectual property sphere. Patent holders have interests that differ from implementers, and large firms have interests that differ from small firms. Any effort to alter the intellectual property laws by statute gives rise to efforts by pressure groups to seek an advantage. The 1946 amendment of the Patent Act that largely eliminated the restitutionary award for patent infringement favors implementers over patent holders. More specifically, the rule favors efficient implementers over patent holders. An implementer that is more efficient at production than the innovator would still have an incentive under the compensatory remedy to infringe the patent and pay compensatory damages to the patentee. Suppose the market will bear only one million widgets and the patentee’s average cost per widget is $2, while the efficient implementer’s cost is $1. If the implementer infringes the patent, he can take the market from the patentee, fully compensate the patentee for his losses, and still have $1 million in profit. Seeing that this is likely to happen, the efficient implementer would have every incentive to lobby Congress for a statutory amendment that limits patentees to compensatory damages. More specifically, the efficient implementer would be willing to spend, in his lobbying efforts, up to $1 million for every year of infringing activity that he anticipates.

Who would efficient implementers tend to be? Probably large firms with sufficient customer bases to take advantage of economies of scale in production or in marketing. The very same firms are likely to be able to afford lawyers and lobbyists to convince Congress to alter the statute to their liking. It follows that the most likely explanation of the 1946 statutory amendment eliminating the restitutionary remedy is rent seeking activity on the part of large businesses who found themselves often in the role of patent implementers. By taking advantage of scale economies, such firms could infringe patents of smaller firms, or of independent inventors, and compensate them entirely for their losses while still profiting from infringement.

Blair and Cotter do not explore the public choice issue as I have done here. However, they say enough to take the reader to the stage where the public choice analysis would not be difficult, as I have suggested. The only challenge that remains is offering empirical proof of this public choice explanation for the change in available patent remedies. Such proof would be difficult to provide.

Before closing, I must return to my earlier, perhaps cryptic comments about the reward-to-loss ratio as an objective for intellectual property. Under this theory, the normative goal of intellectual property law, and remedies in particular, is to maximize the ratio of the reward from the patent to the social loss from monopolization. Alternatively, the goal is to minimize the social loss per dollar of profit from a patent. This is a familiar theory of the objective function that has been adopted in many articles, and it appears to be adopted by Blair and Cotter in their basic economic model. The tendency of this theory, which is to weaken intellectual property rights, is counterbalanced in Blair and Cotter by their adoption of the Calabresi-Melamed framework for designing remedies.

I think the better view of the objective of intellectual property is, as Blair and Cotter also note in several passages, to strike an optimal balance between the dynamic benefits from innovation and the static cost of monopolization. As I argued in my book with Ron Cass, the static versus dynamic cost trade-off perspective provides a better normative approach to designing patent remedies, and I think it provides a better positive theory of the actual court decisions in patent law. As a simple example, return to the patent dispute I discussed earlier, presented in the Bessen and Meurer book, involving the frame for mounting a fabric on a wall. Although the allegedly infringing design appears at first glance to be nearly equivalent to the patented frame, and therefore infringing, one might still decide to find that there is no infringement after balancing static and dynamic costs. The original patented frame was a rather trivial innovation. The dynamic costs—that is, the costs of not using the lure of monopolization to encourage such innovation—seem relatively low for such an innovation. However, the static costs—that is, the costs of excluding from the market similar frame designs—seem large in comparison to the dynamic costs. Hence, a simple economic balancing test seems to justify the court’s decision.

One could argue that the dynamic versus static cost theory seems almost the same as the reward-to-loss theory, but it is not. Under the general objective of optimizing the trade-off between static and dynamic costs, the law might secure to the patentee a reward that goes beyond the profits guaranteed by a monopoly. The social benefit from the patent is greater than the monopoly it generates. A socially optimal scheme might give the patentee the profit and a portion of the residual social surplus created by the innovation. Given this, the reward-to-loss ratio theory starts from a premise that immediately underweights or discounts the social value of innovation.

But this is a matter for another paper. Here my purpose is to offer an appreciation for what Roger Blair has contributed to intellectual property. He has given us a solid framework for analyzing intellectual property laws, and, by using the property rules framework, he has offered a useful counterweight to the reward-to-loss theory that dominates the literature.

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