

# **The Value of IP Protection in Markets for Ideas**

**Joshua S. Gans**

Intellectual Property Research Institute of Australia  
The University of Melbourne

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Intellectual Property Research Institute of Australia

The University of Melbourne

Law School Building

Victoria 3010 Australia

Telephone: 61 (0) 3 8344 1127

Fax: 61 (0) 3 9348 2353

Email: [info@ipria.com](mailto:info@ipria.com)

[www.ipria.org](http://www.ipria.org)

## **Introduction**

It has always appeared that patent protection played a very simple economic role: give the inventor the power to exclude others from commercialising an invention and the inventor can earn monopoly profits rather than see those profits dissipated by would be imitators. That role transferred over for smaller firms who wanted to license or sell their intellectual property rather than take it directly to market. Those firms would bargain with licensees or acquirers with a product that would allow them to continue to be protected from competition.

But recent research has uncovered another potential benefit to intellectual property protection; beyond its role in excluding imitative competition: strong intellectual property protection facilitates trade in markets for ideas. Significantly, it is the property right afforded by IP that is critical rather than its monopoly conferring powers. Here I outline this recent research – both as a matter of economic theory and in terms of empirical verification. The hope is that it will allow us to revisit the precise role of IP lawyers in the innovation system

## **Commercialisation Choices**

To begin, it is important to take a step back and put yourselves in the shoes of inventor-entrepreneurs. When considering how to make profits from their invention they need to assess their commercialisation strategy. In particular, will they try and take a product to market themselves or will they ‘sell the idea’ to another, more capable firm? Commercialising in the product market involves competing with established firms while ‘selling ideas’ involves contracting with one or more established firms in the market for ideas.<sup>1</sup>

There are two broad reasons why contracting might generally be preferable to competing. First, established firms often possess assets and competencies in marketing, distribution, handling regulatory processes (something critical in biotechnology) and more detailed

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<sup>1</sup> The broad benefits of operating in ideas markets are examined by Joshua Gans and Scott Stern, “The Product Market and the ‘Market for Ideas’: Commercialization Strategies for Technology Entrepreneurs,” *Research Policy*, Vol.32, No.2, February, 2003, pp.333-350

development resources. These competencies would have to be invested in and essentially duplicated by entrepreneurs if they want to take the invention to the product market in competition with established firms. In contrast, contracting with them would save that very duplication; offering an immediate benefit that can be negotiated over.

Second, contracting with established firms is mutually profitable for both parties as it avoids the profit reduction from competition. Even with strong intellectual property protection, older, substitutable products exist in the market place. By dealing with an incumbent, the transition to newer products can be closely coordinated. While in some cases, this might generate trade practices concerns, most licensing or acquisition agreements would not meet anti-trust concentration thresholds. Thus, the avoidance of profit reductions from competition is another benefit from contracting.

Faced with these benefits it becomes difficult to imagine why an entrepreneurial firm would not contract with an established firm. One reason is, of course, that the entrepreneur might like to build an empire and keep control over their invention's progress. Another might be that the entrepreneur is far more optimistic than established firms about the invention's value in the marketplace. But even if these were issues, it would still pay for the inventor to attempt to negotiate with one or more established firms; if only to see if there are gains from trade despite these other differences. Nonetheless, it remains true that some smaller start-ups avoid approaching incumbents until their products are established in the market place.

There is a potentially good economic reason why inventors might avoid negotiations with an established firm altogether: the risk of disclosure. In order to sell an idea you have to show the potential purchaser the idea. In some situations a working model is available and its functionality is enough. In other situations, key knowledge has to be disclosed to the potential buyer. The problem is the disclosures themselves may undermine an inventor's ability to contract with unscrupulous buyers. Purchasers may claim they already knew the idea or otherwise fail to reach an agreement. They might then utilise that knowledge to develop competing products and harm the inventor's product market options. Thus, by giving key disclosures, the inventor weakens their own negotiating position to such an

extent that it may be preferable to secretly go to the product market and bypass the ideas market altogether.<sup>2</sup>

This is not a pie in the sky problem. There are many documented cases of expropriation of intellectual property by established firms. Perhaps the most famous is that of Ford who was found to have violated the intellectual property of Bob Kearns, the inventor of intermittent windshield wiper. In the 1960s, Kearns solved some long-standing difficulties with developing the wiper, fitted his car with it and drove it down to the Ford motor plant in Detroit to see if they were interested. They inspected the car, employed Kearns for a short time but eventually passed on the idea. In the meantime, Kearns secured a patent only to find later on that Ford and other car manufacturers had employed his technology in millions of vehicles. Kearns eventually won a case against Ford but only after spending twenty years in a legal quagmire. Had he known, he might never have driven the car down to Ford in the first place; let alone develop this important new technology.<sup>3</sup>

### **Solving Disclosure Problems**

The disclosure problem is not insurmountable. One option, of course, is not to disclose the idea. This might dilute the amount legitimate purchasers might be willing to pay to purchase an invention. However, if the inventor could post a bond, they would be able to use this to give a warranty as to the invention's technical and perhaps even commercial viability. This type of assurance requires, at the very least, a well funded inventor.

A second alternative would be to use a bolder strategy. Bob Kearns might have disclosed his idea to Ford and threatened, quiet credibly, to take his invention down the road the GM if they did not strike an appropriate deal. The existence of established firm competitors can turn the potential expropriation problem on its head; with would be expropriators becoming

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<sup>2</sup> The disclosure problem was first identified by Kenneth J. Arrow, "Economic Welfare and the Allocation of Resources for Invention," in *The Rate and Direction of Inventive Activity*, Princeton: Princeton University Press, 1962, pp. 609-625.

<sup>3</sup> The story of Bob Kearns and the intermittent windshield wiper is told by J. Seabrook, "The Flash of Genius," *The New Yorker*, Jan 11 1994, pp. 38-52.

the expropriated.<sup>4</sup> This type of strategy requires boldness not generally part of most people's arsenals.

Finally, the inventor could ensure they have sufficient intellectual property protection. Expropriation can occur because of a lack of legal recourse. Having a strong patent or an established trade secret regime, allows inventors to disclose their innovations without fear that it could be used against them in the market should a deal not be forthcoming. And it is here that intellectual property serves its additional role. Patent protection not only guards inventors from imitation in product markets but also against expropriation in ideas markets. In some cases, it opens up a new profitable opportunity for entrepreneurs. In other cases, it opens up the only profitable opportunity for them.

The key message is this: while strong IP protection improves returns in both the product market and the ideas market it makes the latter relatively more attractive than the former. This is because IP protection actually enables ideas markets to work in an economically sensible fashion by insuring the inventor against expropriation. This makes such protection doubly important and hence, likely to encourage contracting over competition as a commercialisation strategy.

This trend is borne out from a recent survey of start-up commercialisation undertaken by myself, David Hsu (Wharton) and Scott Stern (Kellogg).<sup>5</sup> We found that start-up firms who have strong intellectual property protection (e.g., a patent) are 23 percent more likely to pursue any type of contracting strategy (licensing, acquisition or alliance) than bringing an invention to market themselves. And this occurred while taking into account differences in the importance of incumbent complementary assets and the nature of the start-up's funding. Moreover, industries where intellectual property protection tended to be strongest (e.g.,

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<sup>4</sup> An analysis of strategies for inventors facing weak IP is conducted by James Anton and Dennis Yao, "Expropriation and Inventions: Appropriable Rents in the Absence of Property Rights," *American Economic Review*, 84 (1), 1994, pp.190-209.

<sup>5</sup> The empirical study of contracting versus competition is contained in Joshua Gans, David Hsu and Scott Stern, "When Does Start-Up Innovation Spur the Gale of Creative Destruction?" *RAND Journal of Economics*, Vol.33, No.4, 2002, pp.333-350.

biotechnology) tended to see more contracting than those where it was weak (e.g., electronic equipment).

### **Implications for IP Lawyers**

There are several implications of all this for IP lawyers:

- It is important for inventors to have, at the very least, a patent application in hand before approaching established firms. This cannot be an afterthought. This would include an international dimension as many Australian start-ups will want to partner with multinational firms.
- IP lawyers can advise start-up clients to ensure they have appropriate trade secret protection prior to the commencement of negotiations with established firms.
- IP lawyers themselves will become repositories of information regarding the reputation of established firms in markets for ideas. They will know if there have been trade secrecy or other cases brought against them. This will allow start-ups to more easily assess if a particular firm can be approached to negotiate the sale of an idea.
- Given this, IP lawyers might advise established firms to be more cautious about when and what terms they strike deals with start-ups. Established firms trying to build reputations as contracting partners need to ensure they have a clean record regarding IP litigation.
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In summary, the research regarding how IP impacts on the operation of ideas markets is still in its infancy. Nonetheless, the message thusfar is that the relationship between the two cannot be ignored and should be considered alongside the granting of monopoly power as another key aspect of the returns to invention.

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