

Preface

I did not pay much attention to the 1994 Uruguay Round of trade negotiations. I assumed I didn't need to – that they were standard trade negotiations. They were not. I was very taken aback to find that under the auspices of the term free trade all nations who wished to stay (or become) members of the General Agreement on Tariffs and Trade (GATT) now had to introduce legislation to provide monopolies for inventions and creations. Quite apart from the dishonesty of slipping these monopoly systems in under the rubric of free trade, I was shocked that low income countries would not be allowed to use the strategies that high income countries used at a similar stage in their economic development – imitation and copying. Nor could I understand why the citizens of Laos and the Central African Republic, for example, should add to the already very high profits of international pharmaceutical companies.

I was not alone in being taken by surprise. In discussions with a wide range of people since 1994 I have found that very few understand what the package approach of the Uruguay Round has done. Most had simply thought that the new name for GATT was the World Trade Organization (WTO). Nor are most people aware of the content of the Trade Related Aspects of Intellectual Property Rights (TRIPS) Agreement. It has been a real surprise to Australian legislators that their desire to promote the health of their citizens by limiting tobacco advertising may run foul of the WTO package of treaties.

When I had the good fortune to leave the paid workforce at an early age, I turned my attention to what I might contribute in this area. As I investigated copyright and patents I was surprised to find that most academic writing on these issues was based on argument (the lawyers) or theory (the economists). In particular I found that much contained a large subjective element – arguments were framed and words chosen to support a particular view. Those with a pro-intervention bent chose words such as 'protection' for a patent, 'free-riding' for using public knowledge and 'pirate' for someone using material without paying copyright royalties – even in a country which does not provide copyright monopolies. Those who prefer competition as a driver of innovation tend to refer to patents as 'patent monopolies', language that deeply offends the pro-intervention group.

Yet the privileges granted by patents allow the patent owner to prevent others from working in that specific field – a clear and strong monopoly right. The term ‘intellectual property’ – covering a wide range of disparate government interventions to provide monopolies – is a modern invention. It came into use about 1980 (<http://books.google.com/ngrams/>).

This constant spin makes working on the patent system a minefield. There are continual language traps that can tempt one away from the empirical evidence. For there is substantial empirical evidence – it is just that much of it lies outside the academic literature on patents. In particular there is now a great deal of empirical evidence about how firms achieve a return to their investment in new products and processes. And, with the exception of the pharmaceutical industry, firms generally report that the patent system is the least effective mechanism. These data question whether patents are in fact necessary (or indeed even effective) as an element of innovation policy.

As I dug further into the system I started to read some patents. It is surprisingly rare for academics working on patent policy to read patents – they are tedious and incomprehensible in the extreme. But I persevered and found that in case after case, once I had translated the claims from ‘patentese’ into English, it emerged that the alleged invention was non-existent. There was no inventiveness. So I started asking why. I found that the answer lay in the “plethora of presumptions and procedures [which] tip the scales in favor of the ultimate issuance of a patent, once an application has been filed” as the US Federal Trade Commission (2003: 8) found in its enquiry into the patent system.

This study takes an economic perspective on patent systems, digging into the details of the legal rules used to determine if a patent monopoly should be granted or not. By exploring in detail a set of patents, the study shows how the current rules have shaped a system which now has almost no threshold for grant of a patent. It breaks new ground by using the actual claims in the patent specification as the basis for a qualitative assessment against the yardstick of whether there is any new contribution to knowledge. This yardstick is used because the key social benefit from innovation is spillovers from new knowledge. If there is no new knowledge or know-how a patent can contribute only a private benefit. If there is no benefit to society, there is no basis for the government to grant a 20-year monopoly.

The patent contract is simple. Society agrees to intervene to regulate the market and provide a monopoly. This interference with competition is expected to lead to a higher level of innovation and the community will benefit from spillovers from the new knowledge and know-how embodied in these induced innovations.

A small universe of 72 Australian business method patents is tracked through 54 parallel applications in the USA, 38 at the European Patent Office and 13 in the UK. None contributes any new knowledge or know-how, though two may be new ideas. The possible new ideas have no associated new knowledge. These data suggest that the large majority of currently granted patents produce no benefit to society, and do not meet the normal definition of the concept of ‘invention’.

I was able to investigate such patents because I have had a wide and varied career. My first job was in the flat glass industry and in fact I have worked in that industry both in the UK and the USA. My time in market research was in a company that worked closely with its advertising parent. I spent time in health insurance, overseas development assistance, the university sector, private consulting and government. I have lived in nine different countries and observed a range of business processes such as travel, retail and banking across these different systems. During my time in government I spent four years working in what is now IP Australia. My role there gave me responsibilities for a new building, financial reports to government, delivering the mail, providing information to the public, introducing continual improvement processes throughout the organisation, identifying and providing staff development opportunities and so on. All these roles involve business processes. Since ‘retirement’ I have managed a superannuation fund, run the international secretariat of a professional body and provided travel advice. It was the rare patent in the dataset that addressed a topic I did not have any familiarity with. Colleagues and friends educated me in these few areas.

The dataset analysed shows that it is the legal rules, often developed through case law, that are responsible for the grant of these uninventive patents. In particular, limits to allowable knowledge and prescriptive rules about how to judge inventiveness have resulted in a test for trivial difference – a very poor yardstick for inventiveness. The narrow legal doctrines result in the computerisation of well-known methods being judged both novel and inventive. They allow obvious combinations of old ideas and trivial variations of existing processes to be granted patent monopolies. Patents are regularly granted for the application of known methods to new areas for which they are well suited.

As the TRIPS Agreement mandates no discrimination between fields of technology, the results of this investigation are generalisable to genuine technology fields. They add to the already overwhelming evidence that the patent system is overdue for reform. The major focus for reform should be re-writing the novelty and inventiveness requirements as a requirement for a genuine contribution to knowledge or know-how. This would radically reduce the volume of patents granted without in any way removing the

possibility of a patent where there is a genuine invention. Because the historical record shows how easily the patent system has been undermined by those who benefit from it, this reform should be strengthened using lessons learned from tax policy reform. Clear objectives need to be written into patent acts, principles must trump detailed rules where there is a conflict and there must be penalties for trying to undermine the economic goals of the patent system. Such an improved patent system, with a genuine inventive step, would benefit innovative firms in all countries and would also substantially mitigate the impost of TRIPS on lower income countries.

To prevent falling into traps where language is a poor reflection of the underlying concept I use quotation marks to identify a questionable use of a word. For example I use ‘invention’ to refer to inventions which are uninventive; ‘problem’ to refer to the trivial issues identified in patent specifications as problems; ‘protection’ to indicate that patent ‘protection’ is actually the prevention of competition, more accurately referred to as regulation or monopoly. Double quotation marks are used for actual quotations.

I have personal experience of the way in which patent system complexity is designed to exclude outsiders. Nonetheless it is quite possible to work one’s way through these exclusionary barriers. I have learned much about patent systems, though am aware there are many areas I have hardly touched. My learning was assisted by many people. In no particular order of importance or chronology I would like to thank Don Lamberton, Glenn Withers, Peter Drahos, Stuart Macdonald, Luigi Palombi, Wanda Gunawardana, Pam Sharpe, William van Caenegem, Bill Kingston, Natalie Stoianoff, Paul Jensen, Elizabeth Webster, Chris Arup, Kay Collins, Neil Porter, Reg Gibson, Danny Kingsley, Kevin Scally, Elzbieta Wieniawa-Narkiewicz, John Kerin, Anna George, Geoff Burton, Margaret Fanning, Sean Applegate, Shiva Thambisetty, Bruce Murray, Dave Herald, Tony Varty and many others whom I have met at conferences and seminars over the past eight years. Needless to say any errors or omissions are my own responsibility.