

Intellectual Property – *Does it stimulate? Is it property?*

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 - Ejan Mackaay
 - Emeritus Professor of Law, Université de Montréal
 - Fellow, Cirano
 - ejan.mackaay@umontreal.ca
 - ejan.mackaay@cirano.qc.ca

Introduction

- Several theories have been formulated to justify IP
 - Merges, Robert P., *Justifying Intellectual Property*, Cambridge, Mass, Harvard University Press, 2011
- We focus here on IP's incentive effect on creation and innovation
- A first question to ask:
 - ◆ Does IP actually stimulate creation and innovation?
 - ◆ Does it outperform other ways of doing so?
- A second question: what kind of thing is IP? Is it a mere privilege? A state-granted monopoly? A property right, and if the latter, in what sense?

The importance of creativity

- Intellectual property rights are about protecting forms of creativity
- Just how important creation and innovation are shines through when Robert Cooter asks in his most recent book on law and development:
 - ◆ What was more important for improving agricultural productivity, finding ways of using horses more efficiently or inventing a the tractor?
 - ◆ The answer is : « A better allocation of horses for ploughing the fields increases agricultural production marginally, whereas inventing the tractor caused a jump in production. »
 - ✦ Cooter, Robert D., *The Falcon's Gyre: Legal Foundations of Economic Innovation and Growth*, Berkeley, California, Berkeley Law Books, 2014, v 1.4 (August 2014)^e éd.); <http://scholarship.law.berkeley.edu/books/1/>
- Let us look into what we know about how to stimulate creation and innovation

The economics of innovation

- Innovation puzzle: when your (potential) creation can be useful to others
- In some cases the share economy can handle it: Wikipedia vs Encarta
- But if mere pleasure of inventing or additional profits earned in other work are insufficient to spur you on, we need special means to encourage you
- Such means could stem from violence (war), prizes, government grants or contracts, sponsorship by the powerful
- In an open economy, we generally prefer means not relying on one authority's pleasure or judgement but on decentralised judgements of multiple market participants:
 - ◆ Through a range of *informal* protections reserving the creation to the creator, with access upon payment or permission (I)
 - ◆ Through legally recognised *intellectual property rights*, which are thought to outperform those informal protections (II)

I Informal tools supporting innovation

- Innovators can protect and ensure their reward informally:
 - ◆ Physically control the object incorporating the innovation and contract for selective access (any concert does this!) or tie the creation to a good that is more easily controlled
 - ◆ Head start, lead time or first mover advantage
 - ✦ The first to bring an innovation to market can charge supra-competitive prices until competitors catch up
 - ◆ Trade secret (provided innovation cannot be easily reverse engineered)
 - ✦ You keep the nature of your innovation secret
 - ✦ You make your employees sign non-compete and confidentiality clauses
 - But they are illegal in California; on the effects of their prohibition:
 - Saxenian, Annalee, *Regional Advantage: Culture and Competition in Silicon Valley and Route 128*, Cambridge, Mass., Harvard University Press, 1994
 - ✦ Action for wilful venting of an innovation, but not for independent rediscovery
 - ◆ Contracts allowing you to cash in on creation by offering your services
 - ◆ Rely on community norms, stopping others from pirating your creation

Where informal protection works

- Raustiala & Sprigman show that for a number of industries it can:
 - Raustiala, Kal et Christopher Jon Sprigman, *The Knockoff Economy: How Imitation Sparks Innovation*, Oxford, Oxford University Press, 2012
 - ◆ Fine cooking (haute cuisine recipes not protected) (tied goods protection) (people prefer to eat a meal prepared by grand chefs in their restaurants rather than merely following their recipes; published recipes may act as advertisement); idem for new cocktail mixes
 - ◆ Stand-up comedians and magicians (community norms)
 - ◆ Sports strategies (first mover advantage)
 - ◆ Type fonts (now cheap to create; tied to operating systems or software)
 - ◆ Financial services innovations (protection within large firms)
 - ◆ Open source software (cash in through contracts for services; reputation)
 - ◆ Data bases (protected in the EU by a directive, but not in North America) (access to paying subscribers, checked out at login; sells by being up to date) (the American data base providers are by far the more successful)
 - ◆ Porn industry
 - Darling, Kate, "IP Without IP? A Study of the Online Adult Entertainment Industry", (2014) *17 Stanford Technology Law Review* 655-717
- Competition drives innovation!

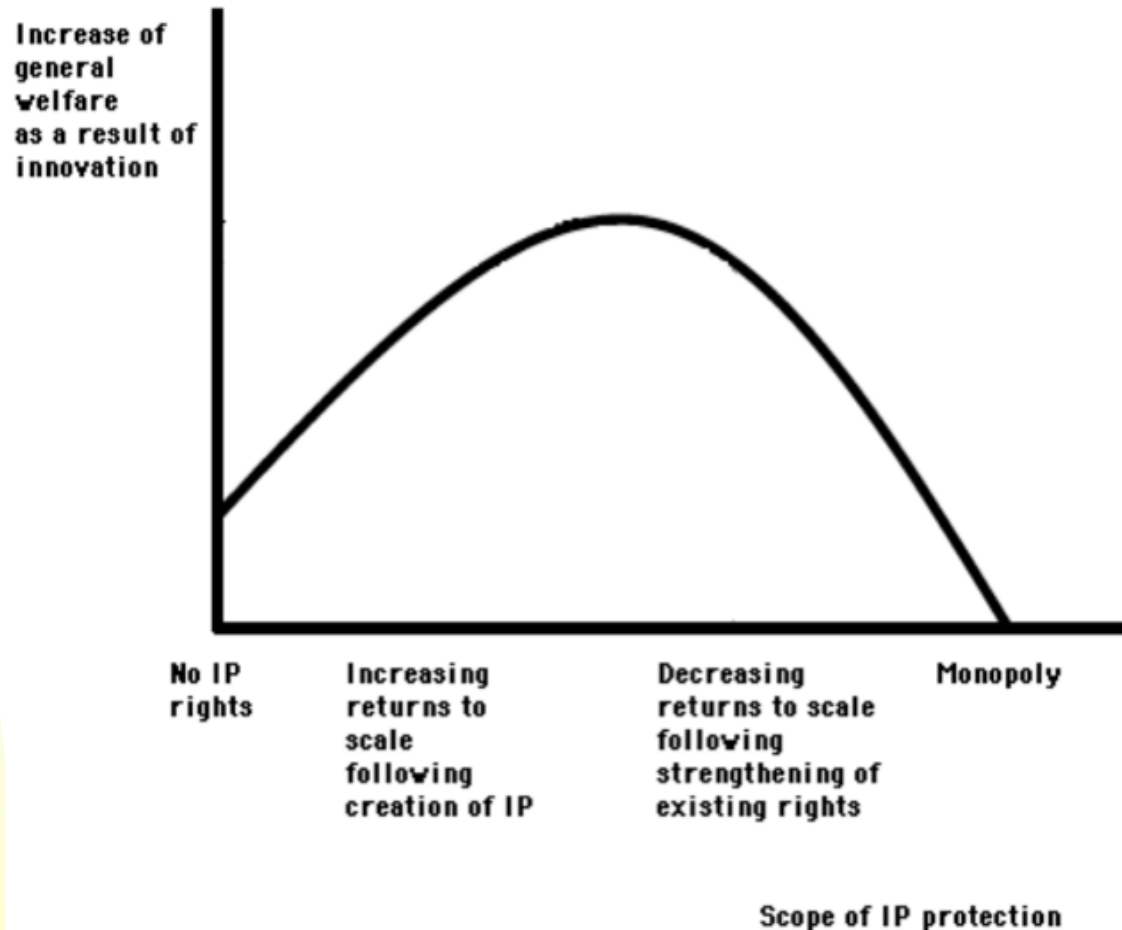
The fashion industry

- Industry revenue, at 750 G\$ in the US alone, higher than the cultural industries combined
- Clothing cartel in 1941 declared anti-competitive by US Supreme Court
 - *Fashion Originators' Guild c. FTC*, 312 US 457 (1941)
- Fashion designers and retailers copy each others merrily and very quickly
- The fashion cascade: the design dress at the Oscars → exclusive stores → BCBG stores → confection mass market
- Fashion houses operate in all segments, but under different brand names
- Being copied may be a a quality signal for the designer
 - Raustiala, Kal et Christopher Jon Sprigman, « The Piracy Paradox Revisited », (2009) 61 *Stanford Law Review* 1201-1225
- Designer dresses act as advertising for the other segments!
- Prices in the fashion market are stable, save at the top (designer dresses doubled)
- Protection only by brand name or trademark; yet industry highly innovative
- The fashion industry is less concentrated than the cultural industries (book, music, film), where there is formal protection. Could this be related to the livelier competition in the fashion industry?

II Formal IP rights

- To design a formal, decentralised reward structure, we borrow some elements from property rights logic, but
- Need to adapt it to its special object, information:
 - ◆ not naturally scarce
 - ◆ easy and cheap to copy (public good character)
 - ◆ cumulative, i.e. any creation builds on earlier ones
- All IP rights are compromises:
 - ◆ a temporary monopoly to reward existing innovation and spur for future
 - ◆ their scope needs to be circumscribed so as not to interfere too much with follow-on innovation
- All IP rights are a trade-off between these two opposing forces
- The composite of the two has the form of an inverted U (graphing scope of the IP rights against longer term level of innovation)

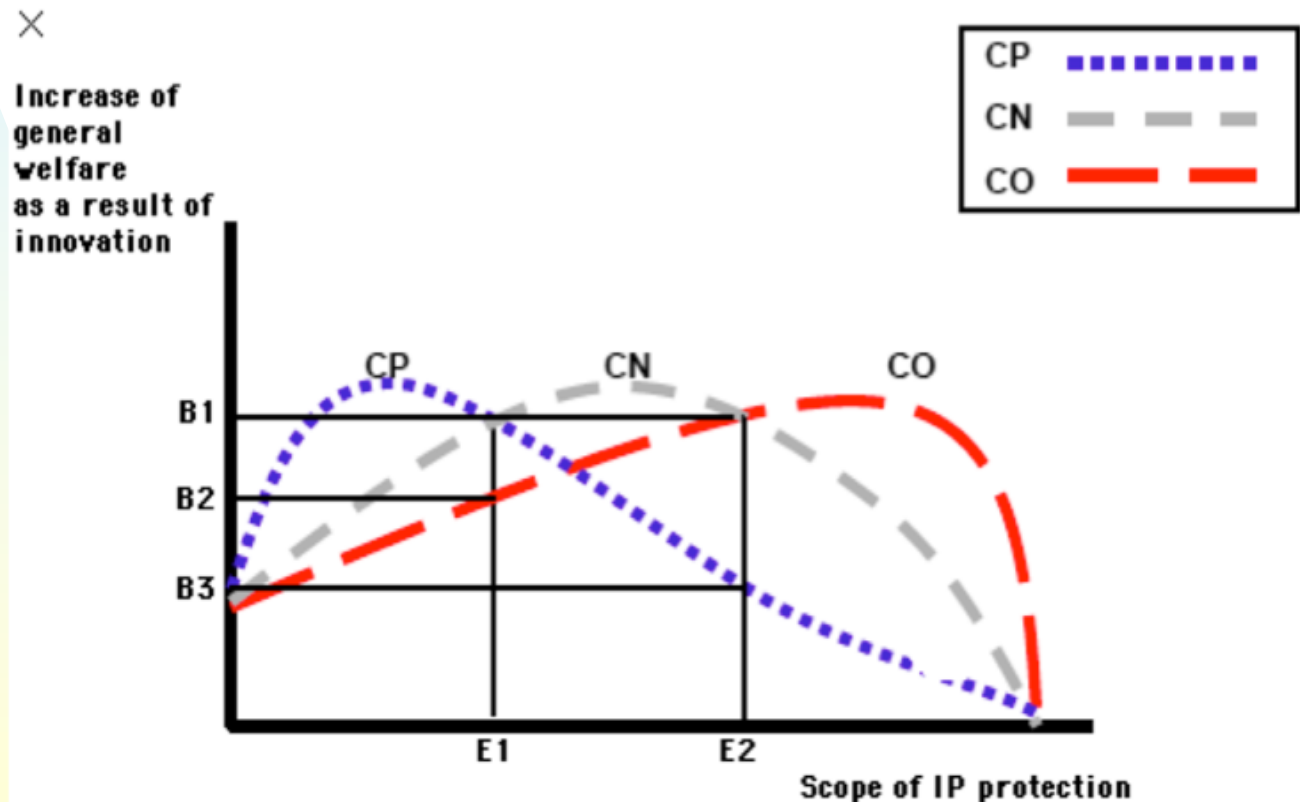
Relationship between the strength of intellectual property and the increase of general welfare (as mediated by the level of innovation)



Formal IP rights (cont'd)

- Problem: we cannot measure directly whether IP rights strike the optimal balance (the top of the inverted U)
- So whether we need stronger IP rights (in the next graph whether we should move from E1 to E2) is up for argument

Optimistic (CO), pessimistic (CP) and neutral (CN) conceptions of the relationship between the evolution of general welfare (through innovation) and the scope of IP protection



Starting up intellectual property

- Early copyright law
 - ◆ FM Scherer in 2004 studied composers born between 1650 and 1850
 - ✦ In 1710, England introduced copyright (Statute of Anne), well before Germany, Austria and Italy
 - ✦ England should have been ahead in terms of musical creativity
 - ✦ Surprisingly, the findings do not support the view that the early introduction of copyright in England stimulated artistic creation there
 - Scherer, F.M., *Quarter Notes and Bank Notes. The Economics of Music Composition in the Eighteenth and Nineteenth Centuries*, Princeton, Princeton University Press, 2004
 - ◆ In a 2014 study Giorcelli and Moser looked at the creation and performance of operas in Italian states between 1780 and 1821, comparing those that introduced copyright during Napoleonic occupation(Lombardy, Venezia), to those that did not
 - Giorcelli, Michela and Petra Moser, *Copyright and Creativity: Evidence from Italian Operas*", 2014, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2505776
 - ✦ They find that the copyright states had more and better opera and that composers born elsewhere moved to those states

Evidence on early patent law

- In a study of innovations presented at fairs during the 19th century, Moser finds that countries without patent protection were still well represented, but their innovations might focus on what can be protected by trade secret
 - ◆ Moser, Petra, "How do Patent Laws Influence Innovation? Evidence from Nineteenth-Century World Fairs", (2005) 95 *American Economic Review* 1214-1236
- She adds in a 2013 study: "Advances in scientific analysis, which lowered the effectiveness of secrecy, increased inventors' dependency on patents."
 - ◆ Moser, Petra, "Patents and Innovation: Evidence from Economic History", (2013) 27 *Journal of Economic Perspectives* 23-44, at 20
- Suggests that initial introduction of patent may have a useful effect on innovation, but later strengthening of it has less -- also the conclusion of:
 - ◆ Lerner, Josh, "150 Years of Patent Protection", (2002) 92 *American Economic Review - Papers and Proceedings* 221-225
- Currently
 - ◆ Biochemical and pharma industries rely most on patent, given the severe asymmetry between high development and low copying costs
 - ◆ Elsewhere: patents as defensive measures against possible lawsuits
 - ◆ Patent trolls – all bad or a way of cashing in by externalising the marketing ?

The music industry

- The music industry has the business model of collecting payment for copies, which made sense when making copies was capital intensive or poor quality
- They consider any copy shared (piracy) to be a lost sale (though in fact it may be advertising leading to more sales)
- Copying is ever easier and good quality; watershed: Napster (shut in 1999)
- The industry successfully sued everyone
- Yet sharing in 2012 amounted to 7.5 billion CDs per month
 - ✦ Lunney Jr., Glynn S., *Empirical Copyright: A Case Study of File Sharing and Music Output*, Tulane Public Law Research Paper No. 14-2, 2014, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2372630, at 14
- What artists can do: self-publish on internet, sell on demand (Spotify etc.), live performance, merchandising, endorsements, contributions
- Lunney studied Top 50 of the Billboard Hot 100 over 1985-2013:
 - ◆ New songs and new artists – constant
 - ◆ « cover songs » - down
 - ◆ New albums up
- New music creation and widespread filesharing can coexist

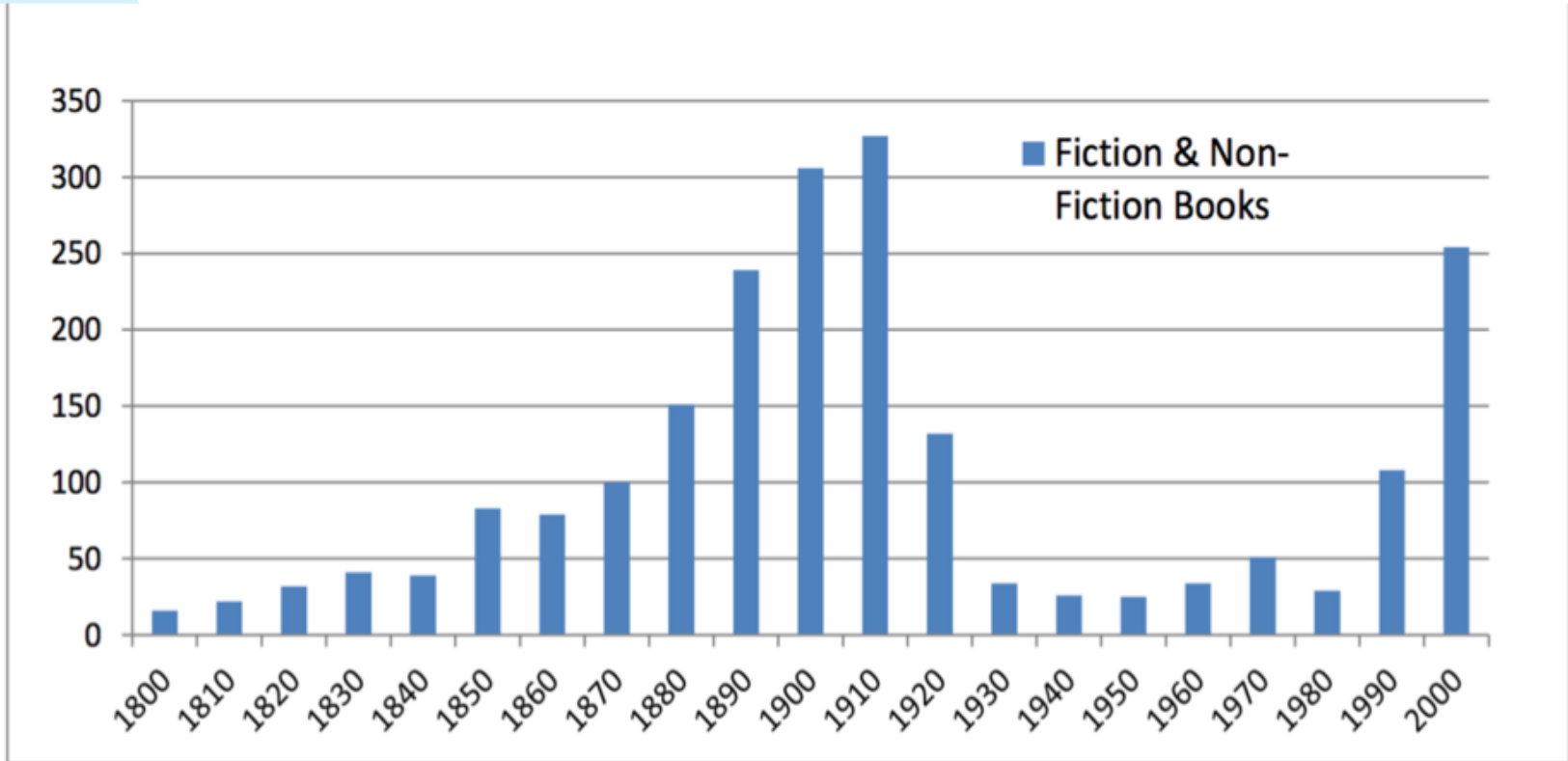
Too much IP?

- If intellectual property rights has been extended too far, what undesirable effects should we expect
 1. *Innovation reduced or redirected* further away from existing (and protected) creations than is necessary
 2. *Information lock-up*: Access to existing creations would be impeded, interfering with follow-on innovation; customers willing to pay not allowed to consume products
 3. *Reduced creative effort* by star innovators who are subject to the “backward bending supply curve”
- Let us see what evidence we have on each of these points
 1. As to point 1, too much patent - bad idea: « [patents] produce costly disputes and excessive litigation that outweigh positive incentives. »
 - Bessen, James E. and Michael J. Meurer, *Patent Failure: How Judges, Bureaucrats, and Lawyers Put Innovators at Risk*, Princeton, Princeton University Press, 2008

Too much IP? (cont'd)

- 2. As to point 2, information lock-up, in the copyright area
 - ◆ Heald looked at the availability of 2000 books (random sample) on Amazon
 - ◆ He found a significant decline with age, but a surprising upturn in the period from the 1850 till 1923 (when books fell into the public domain)
 - ◆ Books after 1923, still under copyright, appear to be withheld from a public willing to pay for them
 - ✦ Heald, Paul J., *How Copyright Makes Books and Music Disappear (and How Secondary Liability Rules Help Resurrect Old Songs)*, Illinois Program in Law, Behavior and Social Science Paper No. LBSS14-07, 2013, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2290181
 - ✦ Heald, Paul J., *The Demand for Out-Of-Print Works and Their (Un)Availability in Alternative Markets*, EALE 2014; Illinois Public Law Research Paper No. 14-31 2014, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2409118

Reappearing Books



NOTE: Each edition was identified by query with a randomly chosen ISBN number. Since some

Too much IP? (cont'd)

- 3. As to point 3, reduced effort
 - ◆ Scherer observes this effect in letters sent by Giuseppe Verdi and opera composers Gioachino Rossini and Gaetano Donizetti behaved similarly
Scherer, F.M., "The Emergence of Musical Copyright in Europe from 1709 to 1850", (2008)
5 Review of Economic Research on Copyright Issues 3-18, 11
 - ◆ Leonard Cohen, having been swindled by his manager, had to engage in new creation and new touring efforts (just when he apparently was considering retiring)
 - ✦ These tours turned out to be extremely successful, in terms of live performance attendance as well as record sales, and largely sufficient to wipe out the losses suffered from swindling.

To conclude

- Let us return to our initial questions
- 1. Does IP stimulate creation and innovation?
 - ◆ Yes, it can, but if extended too far, it may stifle follow-on innovation
 - ◆ All IP is a compromise between rewarding the innovation you see and keeping access open for innovation to come
 - ◆ Some industries are highly innovative with non-IP protection
 - ◆ Some industries rely entirely on the share economy (Wikipedia, linux)
- 2. Is IP a form of property?
 - ◆ Yes, one could see it as an adaptation of property rights logic: it stops free riding; creates fences; creates incentives to manage scarce creative talent
 - ◆ But it has an unorthodox object: information, that forces a very circumscribed property right

To conclude (cont'd)

- What evidence we have suggests that we have become addicted to too strong IP
- Suggestions for correction:
 - ◆ Patents - harder to obtain and rapidly increasing fees for renewal
 - ◆ Copyright, if granted automatically for an initial short period (15 y ?),
 - ✦ should be subject to an explicit request for renewal afterwards
 - ✦ lapse into the public domain if none is forthcoming
 - This would incidentally solve the “orphan works” problem
 - ◆ Copyright legislation should facilitate authors’ decision to put creations in the public domain, possibly under a creative commons licence.
 - ◆ Any extension of IP should be based on empirical evidence pointing to increased creativity



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