Competition Law and IP Law

• Statute on Monopolies 1623
  Reins in the capricious granting of monopolies
  Creates competition law
  Creates IP law as an exception

• Sherman Act of 1890: our main competition law
  §1: Prohibits contracts in restraint of trade
    (requires two or more actors)
  §2: Prohibits monopolization (but not monopoly)
    (this offense can be accomplished by a solo firm)

• Competition law and antitrust law may conflict
  Competition law preserves competition
  IP law preserves market power to the right holder
  How do we reconcile these ambitions?
• “rule of reason” is the basic antitrust standard:
  Balances efficiency versus harms of monopoly.
  Efficiency is a defense to an antitrust charge.
  examples: sharing knowledge, reducing costs

• Department of Justice: the government’s law firm.
  DOJ often brings antitrust cases on behalf of consumers. DOJ
  announces its interpretation of the law in advance, such as in
  the 1995 Antitrust Guidelines on patent licensing. However,
  DOJ does not make the law. DOJ must argue in court, like any
  other party.
Licensing

• So far we have thought of licensing as beneficial because it leads to the sharing of knowledge
  1. Creates production efficiencies & allows information to be shared.
  2. Facilitates follow-on Innovation
  3. Leads to the development of complementary products

• Our objective today is to explain that IP can also be licensed in an anticompetitive manner, in violation of competitive law.

• Some terms we will need

  Exclusive
  Exclusive licensing versus exclusive dealing
  Royalties versus Fixed Fees
  Pro-competitive, anticompetitive
  Merger
  Complements versus Substitutes
  Sham licensing
  Grant backs
  Cross Licensing

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What do royalties do?

(1) share risk and (2) raise price

How do royalties allow risk sharing?
How do royalties raise the market price?
So far, we have viewed licensing as pro-competitive. But royalties raise price! Pro-competitive?

Example: Microsoft licenses Windows to OEMS like Dell, Compact, Sony, HP ...

Would these licenses be made If royalties were not allowed?
Are they “pro-competitive?”

If licensing is exclusive, does the license need royalties?

\[ mc + \text{royalty} \]
\[ mc \]

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Licensing can be anticompetitive

- **US v US Gypsum Co (1948)**
  
  The patented gypsum board had closed edges, which reduces waste and cost. Clearly better than the standard board.

- All the firms in the industry licensed the patent, and agreed not to use the old technology.
Will an exclusive license include royalties?

- Without royalties, how does the licensor collect profit?
- Without royalties, what price will the licensee charge, per unit of wall covered?
- With royalties, what price will the licensee charge?
- Do royalties lead to less profit for the two firms together? Why might they use royalties even with an exclusive license?
Exclusive dealing: Is it anticompetitive?

• In the 1990s, Microsoft licensed OEMS like Dell, Compact, HP, Sony to include Windows, but on condition they did not sell other computers with other operating systems.

• In the 2002 case, Microsoft tried to keep middleware off its machines.

• What are the competitive effects?

• Compare the Microsoft business model with the Apple business model.
Licensing for productive efficiency (pro-competitive)

For productive efficiency (lowering cost), should the monopolist license to a second firm?

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An example: Hepatitis C (more than 3% of world is infected)

• Chiron cloned and patented the genetic code for Hepatitis C virus.
  Chiron originally did not want to license, because it was working on diagnostics, vaccine and therapy itself. Does it have this right?
  After a public dispute and much litigation, Chiron licensed the target to more than 15 biotech and pharmaceutical research firms. Roche and Merck now market the main diagnostic in collaboration, paying royalties to Chiron.

• Business strategy: If Chiron has expertise to develop the diagnostic, vaccine, or therapy, might it license anyway? Why?

• Compare the outcomes, in terms of efficiency, if
  – Chiron gives an exclusive license
  – Chiron gives a nonexclusive license

• Evaluate: With the Chiron patent, the therapy will not be achieved as fast or as certainly as with no patent (recall patent races)

• Would the vaccine be developed more quickly if the genetic code were in the public domain?
Who enforces competition law?

• The courts!

• But who brings antitrust actions?
  
  Private parties
  
  DOJ Antitrust Division and FTC on behalf of consumers

• DOJ/FTC published 1995 guidelines to tell firms what licensing practices they view as unlawful

Concerned with two markets:
  
  – Technology markets (licensing patents, after innovation occurs)
  
  – Innovation markets (competition to innovate in the first place)

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“Mergers” in technology markets: Patent Pools:

• Substitutes:
  Infringing: Airplanes -- Glenn Curtis’ patents infringed the Wright brothers, who would not license.
  Noninfringing -- what is the danger?

• Blocking Patents: the VISX/Summit Pool

• Complements
  Prices may be lower with patent pools, as discussed earlier
Mergers in innovation markets: may retard progress

Suppose the patent value supports the efficient amount of entry into a race. What will happen if the firms make an agreement

\[ p(n)S \text{ is probability of success w/ n firms} \]

Too much entry when winner receives S. Free entry outcome is optimal when winner receives value \( \Pi \).

Will collusion increase or decrease the number of market participants?

\[ c_n = 2 \]

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Collective Rights Management: Licensing bundles of content (songs)

• Are listeners better off with bundled licenses?

• Two parts to this question:
  – Do listeners pay more? Less?
  – Do listeners get more artistry?

• How should collectives be organized? Can anyone join? How are the revenues divided up on the payors’ side? On the artists’ side?

• Does the internet present different challenges than broadcast radio?
Collective Rights Management Organizations: a special antitrust challenge

In a competitive market, each artist would get paid the marginal value that he contributes (height of the dark blue triangle). Why?

Transactions costs make this market impossible, so the courts allow cooperation. With equal sharing, each artist gets the average commercial value (height of the light blue triangle). Why?

If anyone can join the collective organization, how many will join? Will there be too many artists? Too few? Do current members want more members? Fewer?

What is the most efficient number of artists? (The efficient number maximizes the distance between the total value $w(n)$ and the total cost $cn$.)
Collective Rights Management

• In the above diagram, compare:
  Individual negotiation in a competitive market
  Free entry in the CRMO
  Shared profit at the optimal number of creators
  The incentive of members to keep the organization small.

• Are ASCAP and BMI threats to competition? Are they collusion? How should they be governed?
How ASCAP, BMI work in the U.S.

• Compulsory license
• The CRMO’s operate under consent decrees.
• There is (something like) free entry of artists into CRMO.
• Payments are made to artists according to popularity.
• Each broadcaster pays according to its audience.
• For radio broadcast, payments are made to the music publishers. Under a 1998 special law for digital broadcast, payments must be made to the music producers as well. (There are two copyrights.)
What did we learn from the simple model?

• In a CMRO, the marginal value of adding artists is likely to be declining.
  
  (1) As membership grows, the marginal artist is likely to be similar to a predecessor. The first of his kind adds high value to listeners, but the second is only a variant.

  (2) The averaging causes high earners to share with low earners, so the marginal artist is subsidized.

• If the CMRO creates averaging among all the artists, then marginal artists are better off in the CMRO than by licensing individually. The average revenue is likely to be larger than revenue generated by the marginal artist.

• This could even be true if the CMRO collects less total revenue than individual sales would generate. (Think of Madonna subsidizing your favorite boutique artist.)
Music in the internet age

• Are music sales in the internet age more like individual sales, or more like CMROs for radio broadcast?

• Internet models:
  – Spotify
  – iTunes
  – P2P file sharing (Bittorrent)