Lecture 4-2
Intellectual Property
Participation Quiz

Let $X$ denote the set of all sets that do not contain themselves. Is it the case that $X \in X$?

A. yes
B. no
C. none of the above
Expanding the Argument to Intellectual Property

• The textbook considers the (fairly ridiculous) proposition: “Writing a play is akin to making a belt buckle”

• Belt buckle
  – Mine ore
  – Smelt it down
  – Cast it

• Writing a play
  – “Mine” words from English language
  – “Smelt” them into prose
  – “Cast” them into a complete play
Are We Convinced?

• If Ben Jonson and William Shakespeare simultaneously write down Hamlet, who owns it?
  – If that sounds far-fetched, two modern artists who paint a canvas blue
  – Two people can’t have intellectual property rights to the same idea, even if they both had it independently

• If Ben “steals” the play from Will, both have it
  – Unlike a belt buckle, stealing doesn’t deny ownership to the owner

“To be or not to be, that is the question”
Intellectual Property Protection

• So, why Intellectual Property Protection?
  – Some people are altruistic; some are not
  – Allure of wealth can be an incentive for speculative work
  – Thus, benefits to intellectual property protection

• But, these rights should come with limits
  – Giving creators rights to their inventions stimulates creativity
  – Society benefits most when inventions in public domain
  – Strike a compromise by giving authors and inventors rights for a limited time

• It might make more sense to call it “intellectual monopoly” rather than “intellectual property”
1. Trade Secret

- Confidential piece of intellectual property that gives company a competitive advantage
- Never expires
- No legal protection
- Reverse engineering allowed
- May be compromised when employees leave firm
2. Trademark, Service Mark

- Trademark: Identifies goods
- Service mark: Identifies services
- Company can establish a “brand name”
- Does not expire
- If brand name becomes common noun, trademark may be lost
- Companies advertise to protect their trademarks
- Companies also protect trademarks by contacting those who misuse them
When you use “Xerox” the way you use “aspirin,” we get a headache.
There’s a new way to look at it.

Boy, what a headache! And all because some of you may be using our name in a generic manner. Which could cause it to lose its trademark status the way the name “aspirin” did years ago. So when you do use our name, please use it as an adjective to identify our products and services, e.g., Xerox copiers. Never as a verb: “to Xerox” in place of “to copy,” or as a noun: “Xeroxes” in place of “copies.” Thank you. Now, could you excuse us, we’ve got to lie down for a few minutes.
3. Patent

- A public document that provides detailed description of invention
- A government office decides whether the invention is novel, non-obvious
- Provides owner with exclusive right to the invention
- Owner can prevent others from making, using, or selling invention for 20 years
Software Patents

- Patent protection began in 1981
- Inventions can be patented, but not algorithms
- Patent Office having a hard time determining prior art
- Result: some bad patents have been issued
  - Amazon One-Click purchasing
  - Apple: squares with rounded corners
- General skepticism about value of software patents

*Patent trolls: what are they? What do you think?*