



Lecture 4-2

Intellectual Property

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Participation Quiz

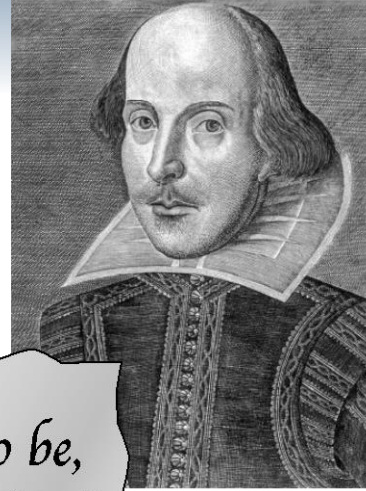
Let X denote the set of all sets that do not contain themselves. Is it the case that $X \in X$?

- 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?



*“To be or not to be,
that is the question”*

- 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

Intellectual Property Protection

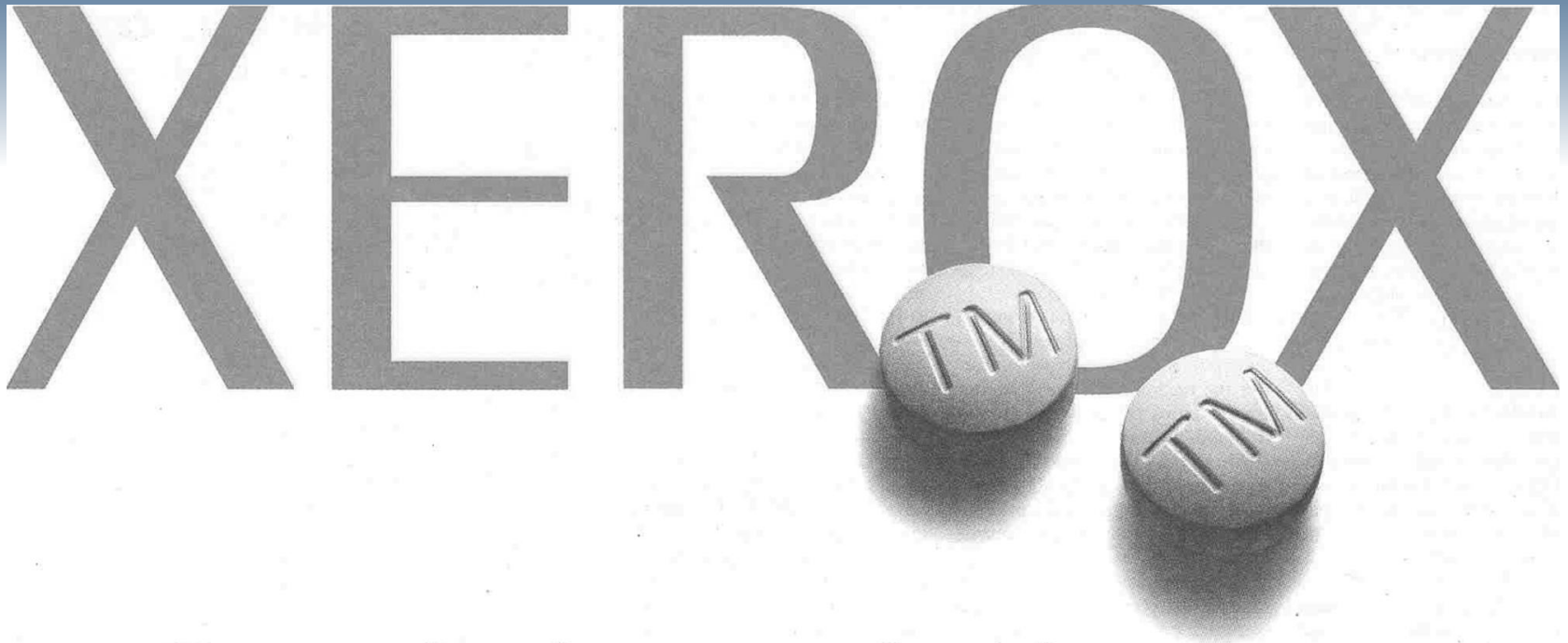
- So, why Intellectual Property Protection?
 - Some people are altruistic; some are not
 - Allure of wealth can be an incentive for speculative work
 - Thus, benefits to intellectual property protection
- But, these rights should come with limits
 - Giving creators rights to their inventions stimulates 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



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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?*