Youngberg

Econ 280—Bethany College

**Homework 08—Key**

Answer all the following on a ***typed, stapled*** (if applicable)separate sheet of paper. You do not need to type equations and graphs. I charge 25 cents to staple your homework. Make sure that you justify your answers, use your own words, and show your work. All questions are equally weighted.

1. For each the following ideas, select which strategy (patents/copyrights, first mover advantage, or trade secret) would likely be the most successful way to profit from the idea. Briefly justify your answer.
   1. After a great deal of time and effort, Nanoo Biomedical develop a cure for HIV using nanite technology, the virus which causes AIDS. Many other companies are working on a cure using a similar technology.
   2. After hiring a product design specialist for just $40,000 a year, Verizon designs a new look for its cell phone which has many potentially new customers excited (but only for a while).
   3. For just $60,000 a year, Rolling Jade, Inc. (a mining company) hires an engineer who develops a new mineral extraction technique which saves the company $20,000,000 a year.
   4. After very little time and effort, the financial consulting firm of Toy and Stone develop a new filing system which saves the company millions of dollars every year for the foreseeable future. They know many other companies are trying to develop a filing system which accomplishes the same thing (Toy and Stone got lucky which is why they figured it out so quickly).
2. *Because so many people will probably develop similar technology, Nanoo should patent the technology so those who create something similar will violate their patent. This is especially important to patent because it was a major investment; Nanoo should probably do what’s safest and patent the technology, especially since such a technology is likely to get approved.*
3. *This is surely a job for a first mover advantage. It wasn’t expensive to develop and there’s no way to keep it a trade secret. Plus, its luster isn’t long lasting anyway, so any costs to protect it for the long run aren’t worth it. This is despite the fact that this sort of innovation would be easy to copy.*
4. *Since this is a method of production, a trade secret is a good bet (it’s relatively easy to keep secret), especially since it wasn’t hard to develop so there’s no big loss if it’s copied. Remember, patenting is expensive.*
5. *This one’s tricky. I’d go with patenting it since it is so valuable and you know your competitors are trying to do the same thing. Making them pay you for something they were going to get anyway is an excellent strategy. Still, you could argue that the patent office may reject a filing system patent and since it wasn’t that expensive for them to make, keeping it a trade secret might be the better option (it is a production method, after all). I don’t see why you would want to rely on a first move advantage, since the benefits are long lasting, but perhaps you could also argue that the constant churn of associates make keeping the filing system secret very difficult.*
6. With the invention of Steam (software which allows you to buy and download video games directly to your computer), the gaming industry is remaking itself. Under this system, can we all be the marginal cost consumer of video games (keep in mind the marginal cost of producing a video game thanks to Steam)? Justify your answer.

*Since the marginal cost of copying a video game is zero, we can’t all be the marginal cost consumer since we wouldn’t be able to cover the fixed cost of making the video game. There would be no incentive to make the game because it would have to be priced at zero.*

1. Consider a monopoly which makes steel and a monopoly which builds cars (made largely with steel). Suppose that these firms plan on merging into one company. Why would this integration cause the price of cars to fall *and* the profit of the combined monopoly to rise (compared to the combined profits of separate monopolies)?

*When one monopoly raises its price, it externalizes a cost onto the other monopoly, in the form of lower profits. Thus, the monopoly’s profits do not fall as much as it would if it were one firm. By internalizing that externality, the resulting monopoly will not raise it prices as much, resulting in lower prices and more total profit.*

1. Describe an example of the tragedy of the anti-commons, excluding the examples of runways and patents. (It may be useful to consider an example where property rights are explicitly forbidden.)

*The standard rule for property rights for most of human history is that you owned a “column” of property projecting from the center of the earth to “the heavens.” When the airplane was invented, this posed a problem: flying even a short distance will violate many people’s property rights. Thus Congress defined “the heavens” as 1000 feet up, turning the air above into a commons where planes could freely fly.*

1. Describe an example of rent seeking. Do not use examples from the lecture notes.

*During Prohibition, the mafia regularly bribed politicians to keep the ban on alcohol alive. They also shot competitors who tried to compete with them. Both are examples of them keeping their monopoly power on illicit alcohol, and thus secure their rents. It’s really quite amazing Prohibition ended when you consider the interested parties involved.*