

ECON6002 HKU Final Examination Answers – Version 2 (100%  
Qualitative)

July 10<sup>th</sup> 2009

1. Consider stock exchanges (e.g. HKEX or NYSE or NASDAQ): are they MSPs? If yes, what are their multiple sides? Describe the relevant network effects (direct and/or indirect). Be precise.

*Key network effect is indirect: stock issuers (companies who list) and investors (who will buy and sell stocks).*

*Some people have tried to argue (incorrectly) that there is an indirect network effect between buyers and sellers of stocks. The reason this is incorrect is that when investors join a stock exchange they are ex-ante more or less identical (they will sometimes buy and sometimes sell stocks).*

*There is however a direct network effect among investors: more investors create more liquidity which is desirable for each individual investor when joining a stock exchange.*

*Other potential players who might create additional indirect network effects with stock issuers or investors are market-makers, brokers etc.*

2. a) Argue that business schools (e.g. HKU, HBS) are MSPs. In particular, list their multiple sides (the ones you think are most important) and specify the indirect network effects among them.

*Students, alumni, faculty (professors), recruiters (companies) and capital providers (e.g. donors) are arguably the most important sides. One could also add third-party providers of specialized services (e.g. Excel training; job interview training).*

*Some people have argued that more professors attract more students and viceversa: this is largely incorrect for common sense reasons. It is nevertheless true that some high-quality professors may have a distinctive reputation which attracts high-quality students.*

*Similarly, the indirect network effects between students and recruiters are more based on quality than on quantity.*

b) Do/should business schools use governance rules to regulate access and/or interactions by their multiple sides that you have identified in a) above? If yes, what do you think are the most important such governance rules and why are they necessary?

*(Cf. my paper with Kevin Boudreau listed in readings for session 5 on MSP governance)*

*The most important governance rules concern access by students, faculty and recruiters and interactions between students and recruiters. They are necessary because as mentioned in a) quality matters more than quantity on the business school MSPs and quality is not necessarily correlated with willingness/ability to pay.*

3. Suppose you are the head of strategy for Sony's PlayStation division (or any other videogame console manufacturer). Explain how and why you would change (if at all) your pricing structure in response to each of the following events or changes in consumer behavior:

a) Studies show that due to the economic crisis, consumers are shifting more of their leisure consumption from travel to home entertainment

*This simply means consumer demand for consoles becomes less elastic so consoles should increase the price of consoles to consumers.*

b) There is an increase in the number and usage of online portals and magazines which rate and compare videogames

*The additional information and ease of comparison intensifies competition between games (and developers), therefore the latter have less market power over consumers and consequently consoles might want to slightly reduce their royalties to developers.*

*On the other hand, some of you made the interesting point that the added information makes it easier for very good games to stand out (i.e. to differentiate themselves), which means the consoles can charge them higher royalties. This effect goes the opposite way relative to the first one.*

*Full credit for this question was given for either one (or both) of these arguments.*

c) Studies show that as videogame consoles have added more and more PC-like capabilities, consumers use them for an increasing array of applications (e.g. connect to and access content on the Internet; play movies; etc.)

*Here again, games (and developers) face stiffer competition - from other entertainment applications/content, which reduces their market power. Therefore, consoles should reduce royalties charged to developers. At the same time, consumers get higher utility so console prices should be increased. On net, the effect is unambiguously to increase profits derived from consumers relative to profits derived from developers.*

d) A third party company releases a technology tool which significantly reduces the *fixed costs* for game developers of multihoming – i.e. producing games which run on *both* your console and that of a competitor's console

*Good answers here started by observing that this tool made it harder for consoles to differentiate from one another in the eyes of consumers, since games are now less likely to be exclusive (instead most developers will multihome). Therefore, consoles makers will inevitably compete*

*more intensely for consumers and less for developers, which means they should lower console prices and increase royalties charged to developers.*

4. Consider two online video distribution portals, A and B. Both function as pure two-sided platforms: they license videos (professional, not user generated) from content providers and allow the latter to set their prices for end-users. Portal A makes money solely by charging a fixed percentage of the price charged by each content provider to users (it does not charge anything to end-users). Portal B charges a fixed percentage to each content provider but in addition it also charges an annual subscription fee to users. Suppose both portals use “recommendation systems” to recommend videos to each individual user. Which portal has stronger incentives to provide genuinely useful recommendations? (i.e. which portal’s recommendation system would you trust more?) Why?

*Portal B's recommendations are more trustworthy to consumers because its profit incentives are more aligned with those of consumers relative to portal A. Indeed, the latter only extracts revenues from content providers, therefore it will have more incentives to "divert search" (cf. session 6 on strategic manipulation of information by intermediaries).*

5. Suppose you are running a business (a start-up or a business division within a large company like Yahoo! or Google) which aims to become the leading intermediary between online video content providers and advertisers. Specifically, the goal is to connect *sellers* of online video advertising space (content websites which contain videos, such as NBA.com, Wall Street Journal, Discovery Channel, etc.) with *buyers* of online video advertising space (advertisers such as Coca-Cola, IBM, Nike, Panasonic, etc.).

a) There are two polar modes in which your intermediary could function: merchant mode vs. two-sided platform mode. Briefly describe what you think each of these two modes would look like *in this particular context*. Be specific and emphasize the differences between the two.

*The merchant mode consists in acquiring advertising space (not acquiring content as some of you wrote!) from content providers, possibly aggregating space from several providers and then reselling that space (or bundles of space) to advertisers.*

*The TSP mode consists in running an eBay-type platform for content providers to sell ad space to advertisers.*

*There is no direct interaction/sale between content providers and advertisers in the merchant mode...*

b) What do you see as the key economic tradeoffs (i.e. pros and cons) between the two modes of intermediation described in a) above? Again, make your arguments specific to this context (online video advertising).

*The most important advantage of the merchant mode here is the ability to combine ad space from multiple content providers (such space has significant complementarities) and then extract higher prices from advertisers for ad campaigns spanning multiple sites.*

*Of course, there is also the usual advantage of breaking the chicken-and-egg problem.*

*The advantages of the TSP model are that it requires less capital to buy the ad space upfront and it involves less risk (no inventory).*