

Disruptive Idea, Open Innovation & New Value Chains: Trends in Asia

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The Age of Innovation

On October 3rd, we had our first lecture by Dr. Dasher about open innovation in Asia to kickstart the autumn seminar series. I am interested in understanding innovation in Asia and how it differs from what is happening in the US. And I think this opening seminar provided a great starting point to look deeper into the different innovation scenes around the world.

The answer is immediate from the seminar. First of all, it is never correct to say there is only one model for Asia. The fact is that due to different economic policies and historical social structures, drivers for technological innovation in countries like China, Korea and Japan vary to a large degree. As per Dr. Dasher's talk, innovation in Korea is largely driven by the government, while the Japanese equivalent is seen in large corporations. And when we compare such a trend across all Asian countries, we see that Singapore is driven by research and Taiwan develops based on its excellence of the semiconductor industry and OEM capabilities. However, the most interesting of all is China, who has benefited greatly from the venture capital boom in the early 2000s and is now reaping similar benefits in technology and IT innovation as in Silicon Valley, all thanks to the influx of capital over the last decade.

What we have observed is indeed surprising and gratifying; however, when juxtaposed against innovation activity in the US, we are indeed seeing some differences. First of all, as pointed out in the lecture, there is a focus of "OPEN" innovation in US more than in Asia. This is seen in that companies are involved in merger and acquisitions and quickly integrating the acquired technology into existing offerings, whereas in Asia, especially in China, acquisition is merely seen as an opportunity to absorb and kill a competitor. In order to create a sustainable ecosystem, more sharing of ideas need to happen and a collaborative working model will benefit everyone.

One more thing I have observed is that most US companies are highly interested in collaboration and exchange or sharing of ideas. For example, in a certain project, the company could have 2 engineers working on the same idea, choose the best one to be used in the industry and the lesser one to be published. In a way, the resource is not wasted, the engineer's ego satisfied, the core innovation still lies within the company, and best of all, more publicity is obtained.

Next, I would like to shed some light on the trend of disruptive innovation. Just to quote Dr. Dasher's speech, there are 4 possible ways to create open and disruptive innovations:

- 1) Creation of a new technology for a new market/customer base
- 2) Performance improvements in the new device and then
- 3) Disruption/displacement of some earlier product/market
- 4) Often involves new firms taking over an industry, new industry structure (new supply chains, etc.)

Therefore, we always see a creation and revamp of the value chain with every time a new product being pushed out or a small process that changed the way the old value chain operates. In this way, the open innovation sustains itself with the suppliers, the consumers, the manufacturing process and the managing structure change within it.

Here, I would like to push one step further that the open innovation footprint can be interpreted as the general change under the façade of a changing economy. It could be captured from a table in the seminar:

Silicon Valley economy: series of booms around new industries – each had high growth companies that became world leaders

“Silicon Valley” term first used in 1971

	<i>Key S.V. industry</i>	<i>Disruptive innovation</i>	<i>Rising stars</i>
Early 1970s	Silicon wafer manufacturing	Silicon crystal growth	
Late 1970s	(Highly) integrated microelectronics	Microprocessor	Intel, others
Early 1980s	New computer systems	RISC chip, new OS	SUN, Silicon Graphics
Late 1980s	Software	Relational databases, graphic user interface	Oracle
Mid 1990s	Internet	Hypertext	Netscape
Late 1990s	E-commerce	DSL, business enablers	Yahoo, eBay
Early 2000s	Web 2.0	Search engines	Google
Late 2000s	Social networking	New business models	Facebook, Twitter

Table 1: Silicon Valley economy: series of booms around new industries – each had high growth companies that became world leaders

Here, we are seeing exactly the drivers for disruptive innovation. We could not only see that such an innovation is happening almost every 5 years in the valley, but also, the key innovation has shifted from hardware to software and to the internet business whereas the drivers as seen changing from the physical layers of silicon technologies to the upper layer of new business models. One reason I could think of is it is increasingly difficult to innovate on the grounds of technology

as in an 80-20 rule: it is much more difficult to make new progress after some successful work is carried out in a certain area. But I would rather believe it is the economic reason that is driving innovation forward.

The type of innovation varies with the stage of economy that it is in. We are observing that the economy has slowly progressed to what we call the user experience-based economy that is characterized by the increasingly fragmented time per user and the need to multitask. Everything goes fast in this economy. To put simply, the drivers for the society are to reduce the exact effect of the advancement of the society and to simplify people's lives. This is why creative ideas like Siri, Snapchat, PocketGems and Evernote are catching people's attention with the beautiful goal of increasing productivity while not necessarily carrying with it advanced technology per se. As the market becomes more fragmented, innovation on business model will be the best way to cut an edge in the global economy. If this is the right way to go, I would like to make some bold predictions on the next round of innovation:

1) Technology:

Reduce big data into small sizable pieces, using more processing power to deliver the result on-the-go, and making breakthrough in areas that are recue repetitive work and moving into smarter areas;

2) Business model:

More surround pay-as-you-go model to eliminate the huge sunk cost and only focus on the things that are at the core of the user-experience business. Pay for more for greater experience(better graphics, more accessible voice-control and better design) and a model that utilizes the user's time well in a short span of time

Here are my thoughts on the first seminar and look forward to the rest to come!