The Magic of Silicon Valley

1st ACM Chapter Networking Seminar on Globalization & Innovative Thinking

Team B

H. Ito (s1230208)
- Computer Arts Lab

C. Kamia (s1220006)
- Software Engineering Lab

Y. Kato (s1230211)
- Complex System Modeling Lab

Y. Kotaki (s1230132)
- Biomedical Information Technology Lab

K.Nagao (s1180188)
- Performance Evaluation Lab

Where is Silicon Valley?

Why is SV culture important for CS students?

We can exploit parts of SV culture to our advantage as a student or even faculty.
Such SV culture includes the following:

- The spirit of risk taking.
- Customer oriented business model.
- Extensive use of data science technology,e.g. big data, machine learning*1, NN, etc.
- The people in SV helps each other to do their businesses.
- The people in SV have a good internal motivation for innovation.

*1 The free online course “Machine Learning” taught by Prof. Andrew Ng of Stanford University is a good intoroduction to the field.

The initial impression about SV

The initial impression about SV is as follows:

- It has many famous companies such as Google, Facebook, etc.
- It is in America.
- It is a very high-tech area.
- There are many investors.
- It makes many more innovations when compared to other areas.

However, there are many more significant and impotant issues in favor of SV.

How Silicon Valley works?

- https://www.youtube.com/watch?v=r44RKWyfcFw
- This video explains behind the scenes:
  - SV is the perfect habitat for innovation.
  - It's not all about capital and investors.
  - Many people are flying over from everywhere in the world to SV to build their companies.
  - The spirit of risk taking.
  - There are many startup events in SV.
  - SV is the best place to make ideas happen.
  - The only things that matter are what you want to do and how you are doing it.
  - People helps each other.
  - Success is derived from a good emotional state and internal motivation.
  - It doesn't matter where they are from or how old they are to start a company.

The Silicon Valley Ecosystem

SV has an ecosystem in which the components are interrelated.
The following are the dominant components of the SV ecosystem:

EDUCATIONAL OR RESEARCH INSTITUTIONS such as universities provide talented people for the business world and make tech innovations.

STARTUPS are ventures with innovative products or services.

LARGE CORPS such as Google, Oracle, etc. acuire startups.

VENTURE CAPITAL is money invested for startups.

COVERMENTAL ORGANIZATIONS are also involved in the SV ecosystem by funding academia.

STUDENTS US and foreign students may get grants.

ENDOWMENTS become the funds for universities, grants and venture capitals.

How Important Is it For a Tech Start-up To Be in The SV?

- There are many famous companies in the SV. For example, there are Apple, Google, Yahoo, Facebook, Intel, etc.
- If a start-up company runs in there, it will connect them and get their technology.
- So, to be in SV helps a tech start-up growing. And, Silicon Valley is the most famous and popular place for IT companies in the world. If a start-up runs in there, it will help the company to be famous.
- If any start-up becomes famous, it will start connecting with a bigger company. So, it will also help its technology growing.

Special Start-ups in the Silicon Valley

- There are a lot of start-ups in the Silicon Valley.
- From them, I chose two companies.
- I think these two start-ups are special.
- First start-up I chose is ***SendGrid***. **SendGrid** is a start-up offering E-mail delivery service. Today, many people around the world is using E-mail. So, E-mail delivery service is very important. Especially, **SendGrid** is superior to other companies offering E-mail.

Start-up 1 : SendGrid

- Be able to send 10,000 mails.
- Can be used for free without a deadline.
- Analyze performance in real time.

Start-up 2: Nucleus

- This start-up offers a family communication device.
- The company motto is "When you buy from us, you buy from family." The device makes connection with a family.
- Nucleus is supported by Amazon. This start-up will be able to have a worldwide presence.

Start-up 2 : More on Nucleus

- The device has hard security and save private.
- Use with easy operation and instant maneouvering.
- Have a 120-degree HD camera, you can see the whole room.

Business And Technology Model Of UBER

Q.What is "Sharing economy" ?

A."Sharing economy" is new business style that shares products and services. For example, one of the companies in the market that apply "Sharing economy" in it`s business model is UBER.

Q.What does UBER produce?

A. UBER produces a service that makes travel more useful. For example, the rider call the car that introduces UBER's system.That system finds the UBER car that is nearest to the passenger.

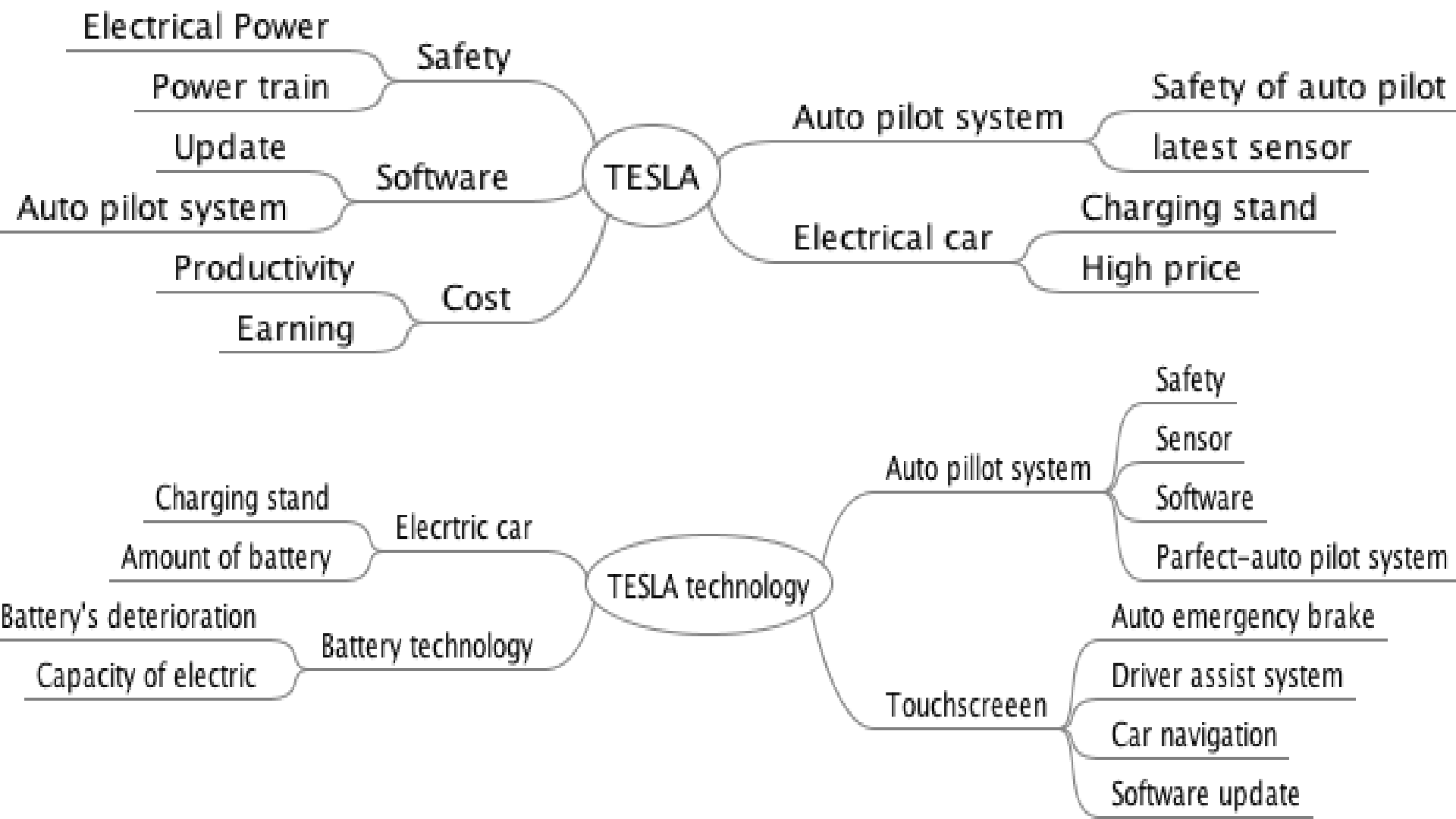
What Kind Of Service does UBER Produce?

UBER produce brand new service, at first UBER manage all product in UBER app, for example, UBER app manage request to ride, paying, way to destination, so rider can ride car without paying,explain way to destination.

In the United States, by UBER produce that excellent system, step out other a lot of company for ride, this phenomenon is called "UBERization" .

TESLA`s Business And Technology

- *TESLA is the company that produces revolutionary electric cars.*
- *TESLA car has touchscreen that is called center console.*
- *The screen has many functions.*
- *TESLA autopilot system is selected as one of the most safe systems. The first reason for safety is that TESLA use many sensors.*
- *TESLA car has 8 surrounding cameras and 18 supersonic sensors, so the car can see 360 degree and 250m distance in a bad weather for example rain, fog, and so on.*
- *Secondly, once the driver pre-decides on the roadmap, the system can drive automatically on the highway.*
- *Further, if the car ahead drives at a slower speed, the TESLA can change the pathway for more drive smoother driving.*


TESLA
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Software
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Cost
Productivity
Earning
Auto pilot system
Safety of auto pilot
latest sensor
Electrical car
Charging stand
High price
TESLA technology
Elecrtric car
Charging stand
Amount of battery
Battery technology
Battery's deterioration
Capacity of electric
Auto pillot system
Safety
Sensor
Software
Parfect-auto pilot system
Touchscreeen
Auto emergency brake
Driver assist system
Car navigation
Software update

Tokyo IT Ecosystem

- In the late 1990s, the IT-related startups were gaining attention in the Shibuya area with the name “Bit Valley”.
- This area saw top 50 startups, active VC(Venture Capital) firms, and active accelerators/incubators in the Tokyo area, that is listed JVCA`s(Japan Venture Capital Association's) database.
- But now, those firms are dispersed across several downtown city centers, including Shibuya but also including the Roppongi area and Otemachi/Tokyo station area.

SILICON VALLEY-NEW JAPAN project based in Stanford University

The aim of this project is

"The Formation of Silicon Valley and the multi-dimensional platform that connects Japan".

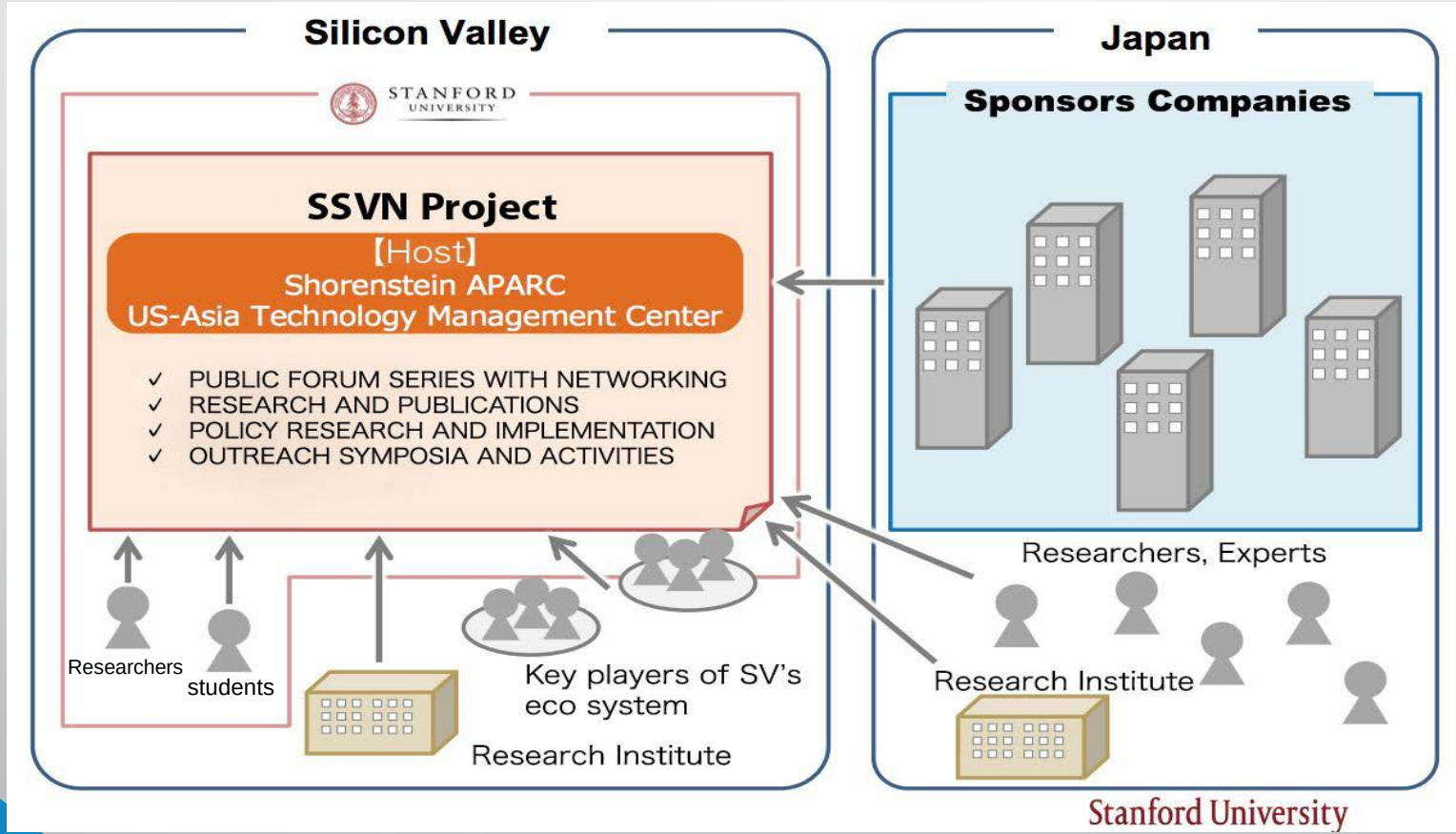
To be spefic,

1. Research and policy evaluation based on the study of Silicon Valley
2. Formation of personal network of SV-Japan
3. Research on industry-university collaboration in Silicon Valley

Project Components

- Public forum series with networking
- Research and publications
- Policy research and implementation
- Outreach symposia and activities

Project Overview



Japanese start-up companies

The follow companies won

The 8th edition of Btrax's annual JapanNight pitch contest.

1. Comic English
2. Drivemode
3. SpaceMarket
4. Colavi
5. Hinative

Each startup was ranked according to five criteria:

- Technology
- Business model
- Value to users
- Pitch skill
- Global growth potential.

About Btrax.

- Based both in San Francisco and Japan, Btrax is a market consulting and brand localization firm that was established to address all those issues.
- It's event is aimed specifically at bringing a group of Japan's top ventures to the Valley.

Japanese start-up companies

- Drivemode

- According to Drivemode, there are 1.6 million car accidents in the US each year that are a direct result of distracted driving.
- Drivemode wants to bring older vehicles up to speed with modern safe-driving tech.
- Its smartphone app not only allows easy control of a car's radio or navigation system, but allows for add-ons like backup cameras and parking sensors.

- SpaceMarket

Airbnb might connect you to someone's unused or partially-used apartment, but where do you turn when you want to rent a baseball stadium or a Buddhist temple for your next event?

- **The answer** - if you're in the greater Tokyo area (or a few select locations overseas), is **SpaceMarket**.
  Users can search for venues based on date, budget, and location – even technically mobile venues like yachts and trains are available.

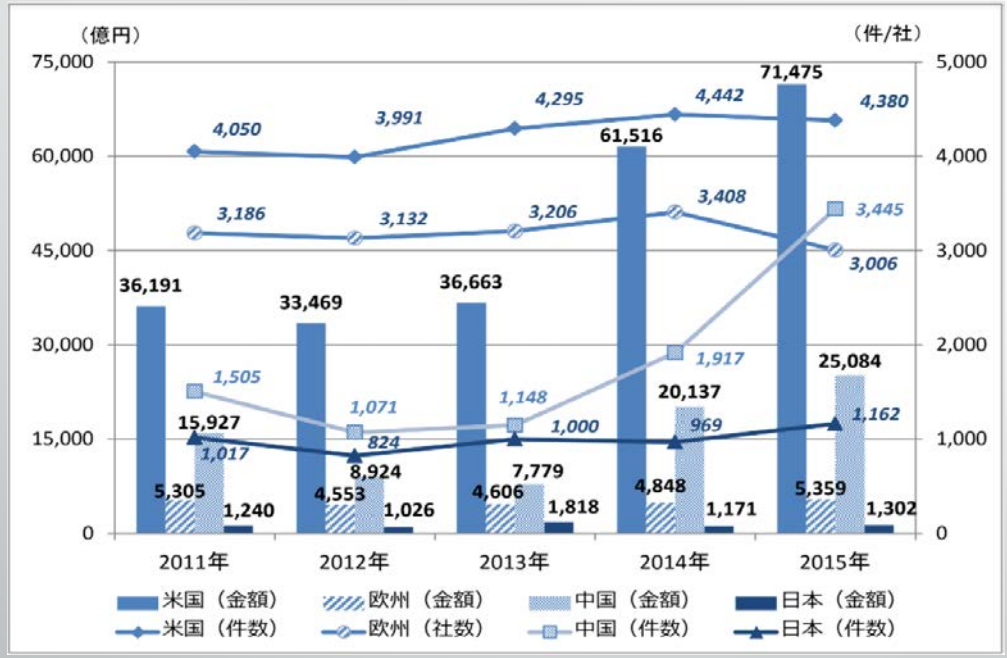
Japan's attempts to enter into SV

- The on-and-off affair between Silicon Valley and Japan can be said to now be on its **third round**.
- The collaboration started from 1980s and went on to the late 1990s with Internet-based businesses and early 2000s with the dotcom bubble.
- With the bubble burst many Japanese companies went packing from Silicon Valley.
- **Now, the Japanese are back with a vengeance.**
- After the visiting of Prime Minister Abe to SV in 2015, Toyota announced a investment of $1 billion in a SV artificial intelligence laboratory.

Japan's attempts to enter into SV

- Companies such as Panasonic, Dai Nippon Printing, JCB, Mitsubishi Heavy Industries and Dentsu now have offices in the SV as partners at startup incubators such as *Plug and Play* and *500 Startups*.
- Companies not traditionally associated with the IT industry such as Yamaha, Denso, Mazda and Nissan are establishing headquarters in the Valley.
- Many Japanese executives are booking trips to see for themselves what is happening in SV.
- Also, this trend has started a new tourism business called the "Innovation tourism."

Data on Japan and world start-up funds



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- U.S.A. has a high quantity.
- The economy of China is growing very much
- In Japan, the amount and number of cases are increasing moderate

Which cities will become Japan's Silicon Valley

	Tokyo	Osaka
Number of IT companies	35,173 (2014)	12,052 (2014)
Number of companies not Japanese nationality	2,296	177
Near industrial area	Keihin Industrial Zone	Hanshin Industrial Zone
Regional GDP	10572 billion dollars (2015)	4417 billion dollars (2015)

Universities and Companies in Silicon Valley

- Internship
- Multinational students
- Support by large companies
- Government support
- University-industry collaboration

Entrepreneurship in Japan and Start-up in Silicon Valley

- Meta which is a start-up in SV is developing Augmented Reality(AR) tools.
- In Japan, there are many companies that develop APP for smartphones
- There are few (or no) companies developing applications and hardware for next generation devices
- My idea is establishing company of AR tool including hardware development.

Can Tokyo ever rival Silicon Valley

- Silicon Valley is a special area
- Tokyo is also a special city
- Silicon Valley is the area where new technology is born
- Tokyo is a big economic city
- Since each one grows up in their own way
- I think that it is unnecessary for Tokyo to become SV.