

Sharing Economy in Korea

Prepared for ICT Convergence Forum (April 14, 2015, Samjung Hotel)



Byungtae Lee, Ph.D.

Professor | College of Business, KAIST|

Director |SK Center for Social Entrepreneurship|
| Center for CSR|

|Center for Digital Economy and Innovation|

CEO | KAIST Venture Investment Holdings|

Agenda

1. **What is Sharing Economy?**
2. **Financial Service Industry**
3. **Space Sharing Economy**
4. **Ride Sharing Industry**
5. **Regulation and Innovations**
6. **Conclusion**

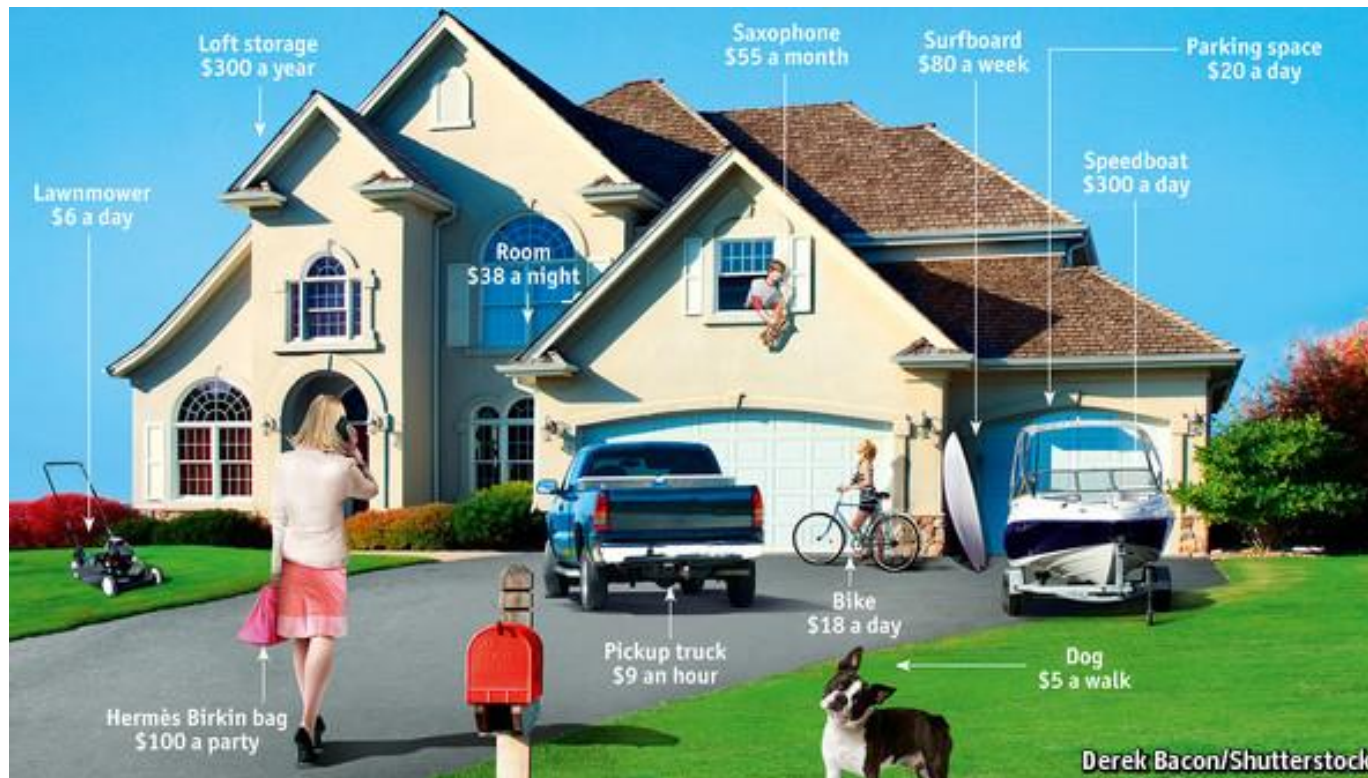


What is the Sharing Economy Business Models?



Sharing Economy: What's mine is yours, for a fee

Everything (or Everyone) Shared in Sharing Economy



- A system that activates *the untapped value of all kinds of assets* through models and marketplaces that enable greater efficiency and access (Botsman 2014)
- Transaction *without transfer of ownership* (Labmerton and Rose 2012, Bardhi and Eckhardt 2012)

Source: <http://www.economist.com/news/leaders/21573104-internet-everything-hire-rise-sharing-economy>

A day life in the sharing economy

- ▶ If you're looking to utilize the sharing economy in your area, check out the following services:
- ▶ Hitch a ride to work with [Uber](#).
Share your office space with [PivotDesk](#).
Hitch a ride home with [Lyft](#).
Schedule a pet-sitter through [Rover](#).
Hire a gardener through [TaskRabbit](#).
Save on a hotel and stay through [Airbnb](#).
Score some extra cash by sharing your car through [Getaround](#).
Or cruise the city on a rented bike through [Spinlister](#).

A day life in the sharing economy

A Day in the Life of the Collaborative Economy

Version 1.2

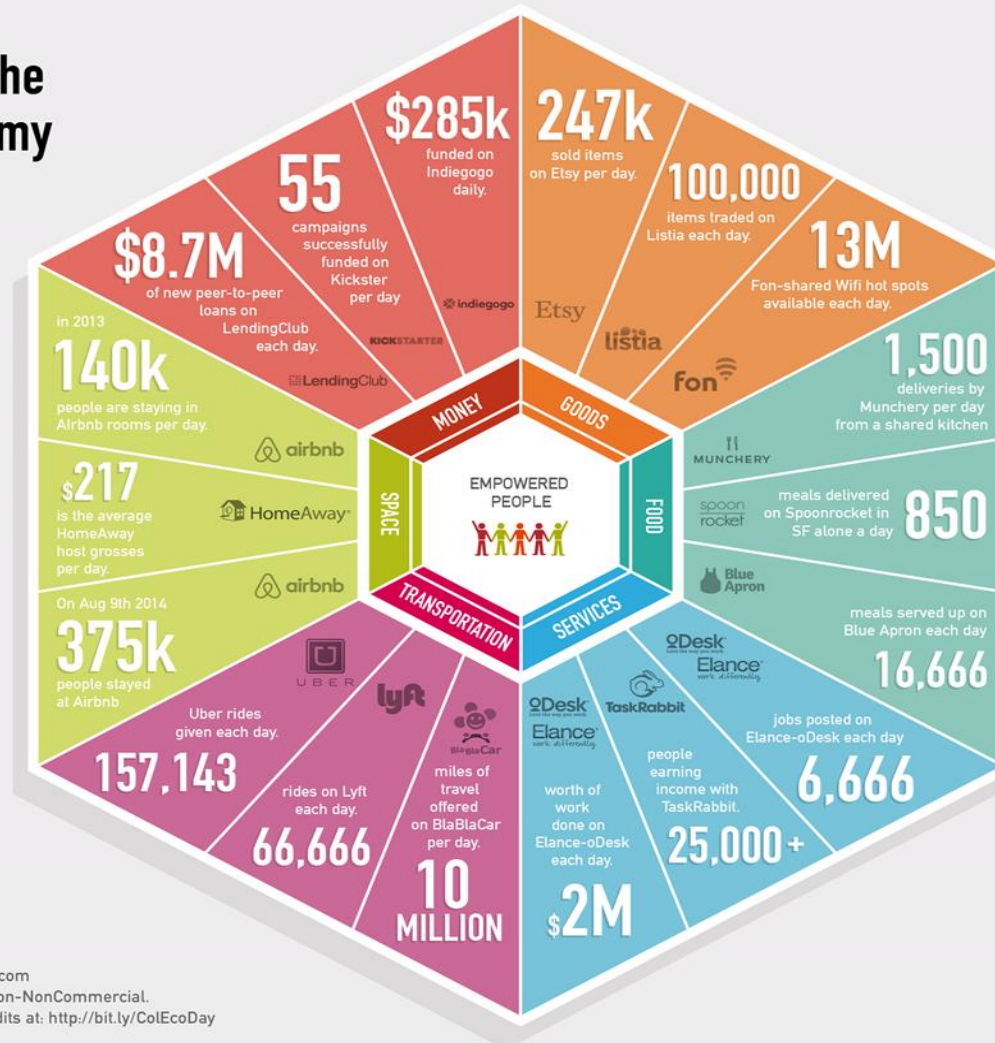
The growing Collaborative Economy is a peer-based movement that empowers individuals to get what they need from each other.

From crowd-funding new projects, to peer-based money lending, to people sharing physical goods, the collaborative movement stretches across many aspects of our lives and businesses.

We can see it activating all around us. But, is it having a broader impact beyond the limits of our own horizons? This illustration reveals the current, possible daily impact of the Collaborative Economy, making it easy to see the scope and impact of the entire evolving economy in one, single graphic.

Compiled by
Jeremiah Owyang, @jowyang
jeremiah@crowdcompanies.com
Founder of Crowd Companies

Design by Vladimir Mirkovic www.transartdesign.com
August 2014. Creative Commons license: Attribution-NonCommercial.
Access a digital copy of this graphic, and data credits at: <http://bit.ly/ColEcoDay>

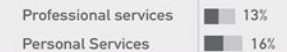


PARTICIPATION IN THE COLLABORATIVE ECONOMY: RECENT AND PROJECTED

GOODS



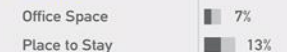
FOOD & SERVICES



TRANSPORTATION



SPACE



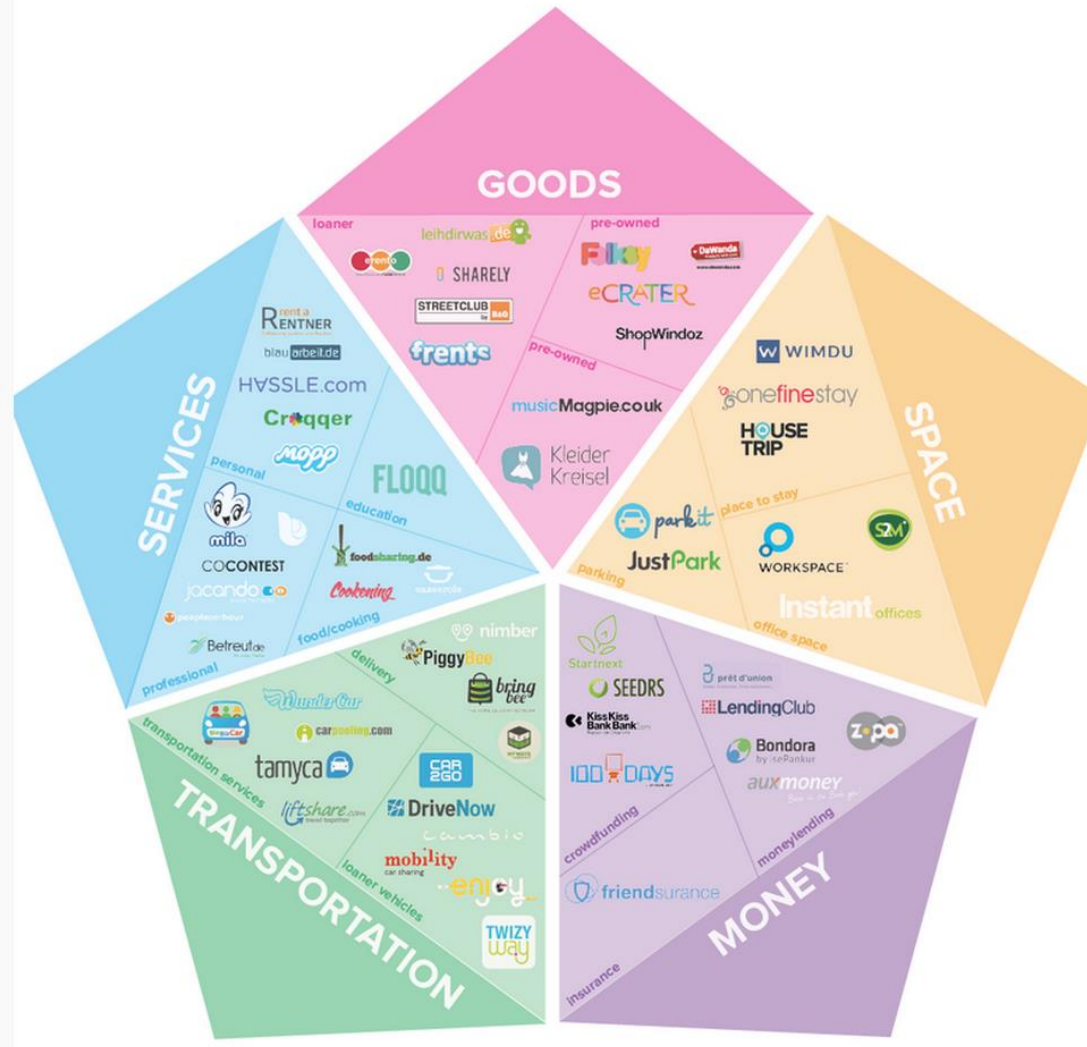
MONEY



Data from recent report Sharing is the new Buying with Vision Critical and Crowd Companies, 2014

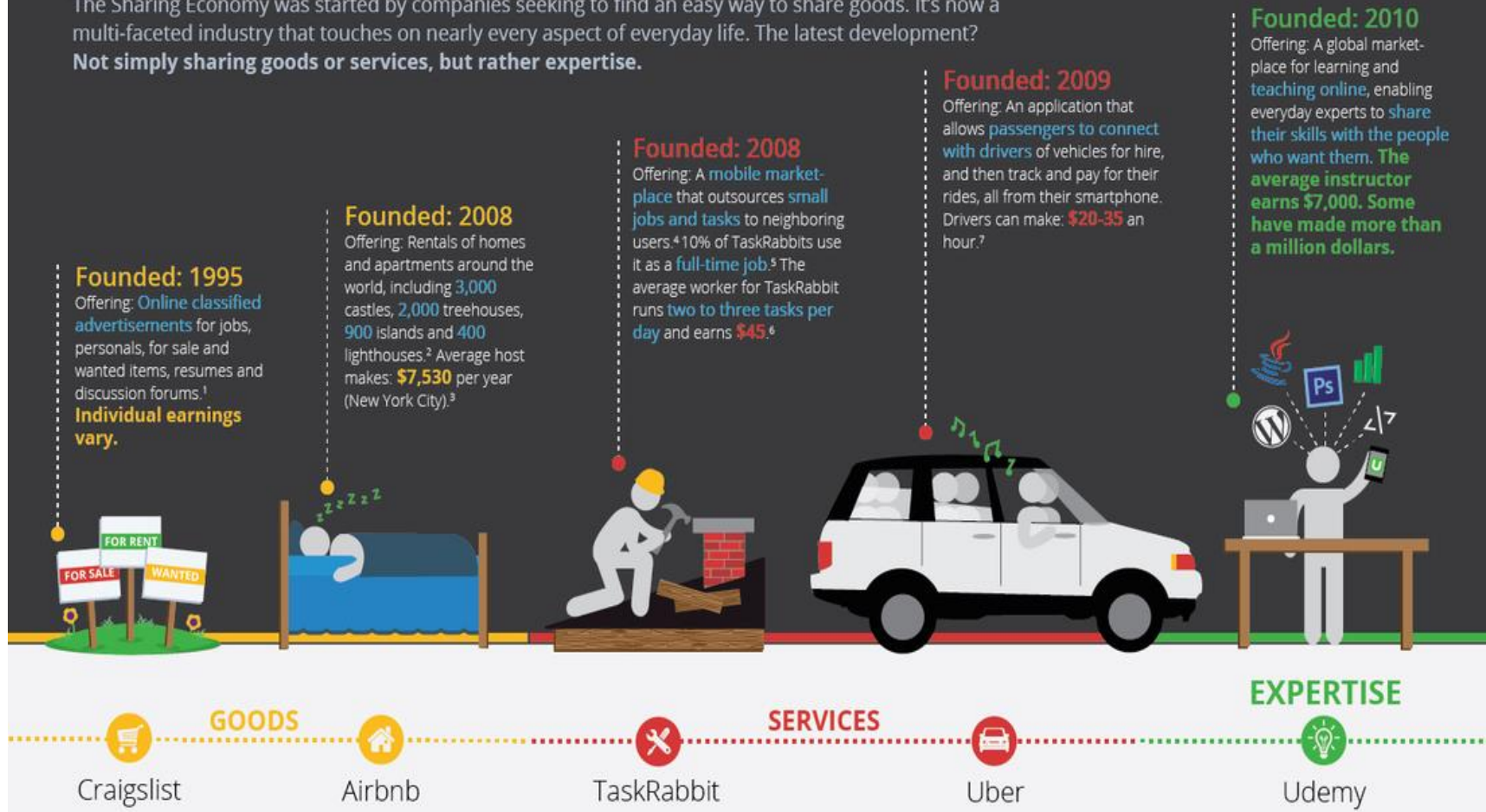
CROWD COMPANIES
www.crowdcompanies.com

SHARING ECONOMY IN EUROPE



THE EVOLUTION OF THE SHARING ECONOMY

The Sharing Economy was started by companies seeking to find an easy way to share goods. It's now a multi-faceted industry that touches on nearly every aspect of everyday life. The latest development?
Not simply sharing goods or services, but rather expertise.

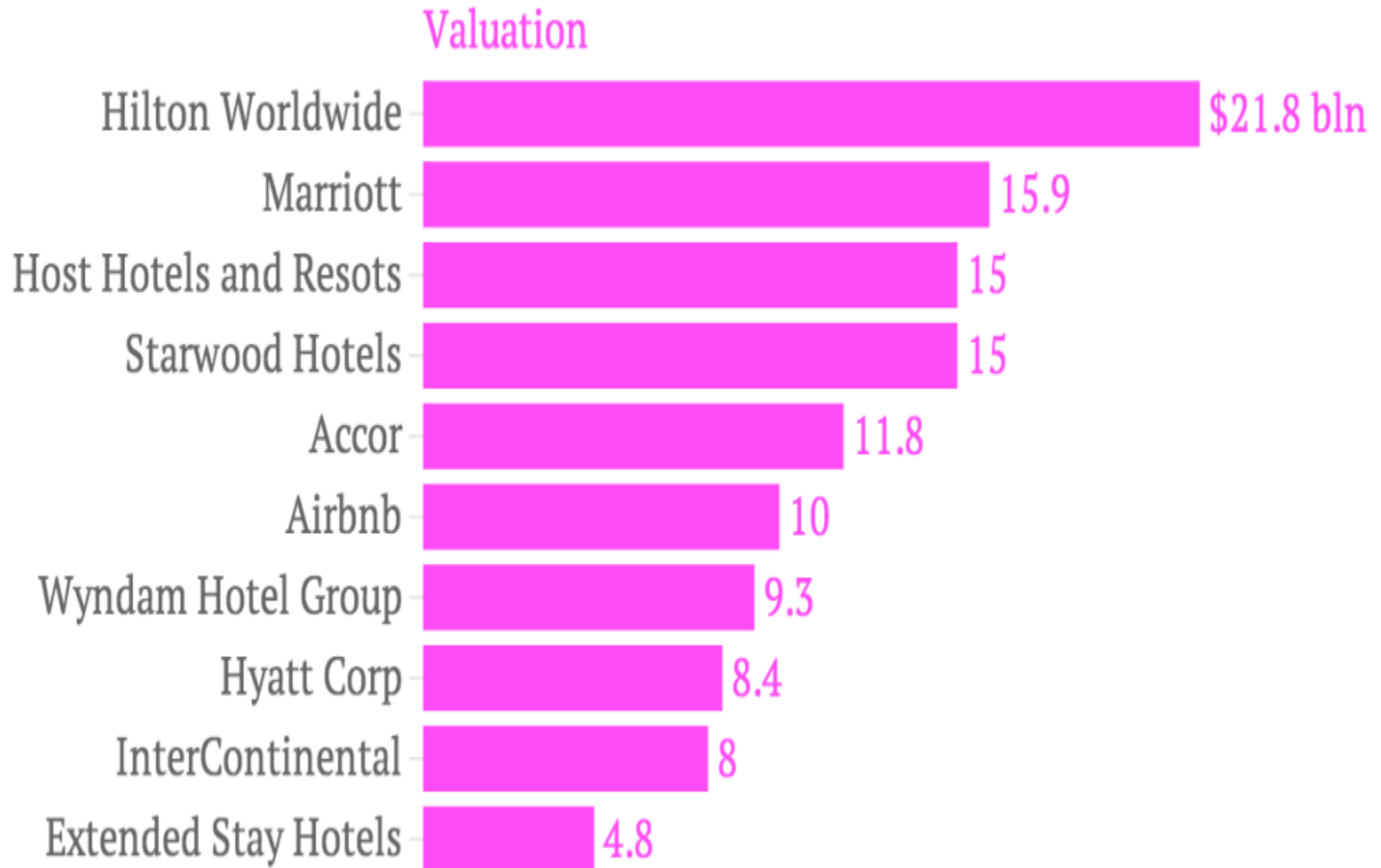


New Stars

Uber	Transportation network	\$1.5 Billion	\$18.2 Billion
Airbnb	Lodging sharing	\$475 Million	\$10 Billion
Lending Club	Peer-to-Peer Lending	\$220 Million	\$2.3 Billion
Lyft	Transportation network	\$333 Million	\$700 Million
TaskRabbit	Task and errand labor marketplace	\$38 Million	Not disclosed
RelayRides	Peer-to-Peer car sharing	\$54 Million	Not disclosed
Fiverr	Creative and freelancer marketplace	\$50 million	Not disclosed

Airbnb doesn't even own a bed, but its backers think it's more valuable than Hyatt

Selected global hotel companies



Quartz | qz.com

Data: FactSet



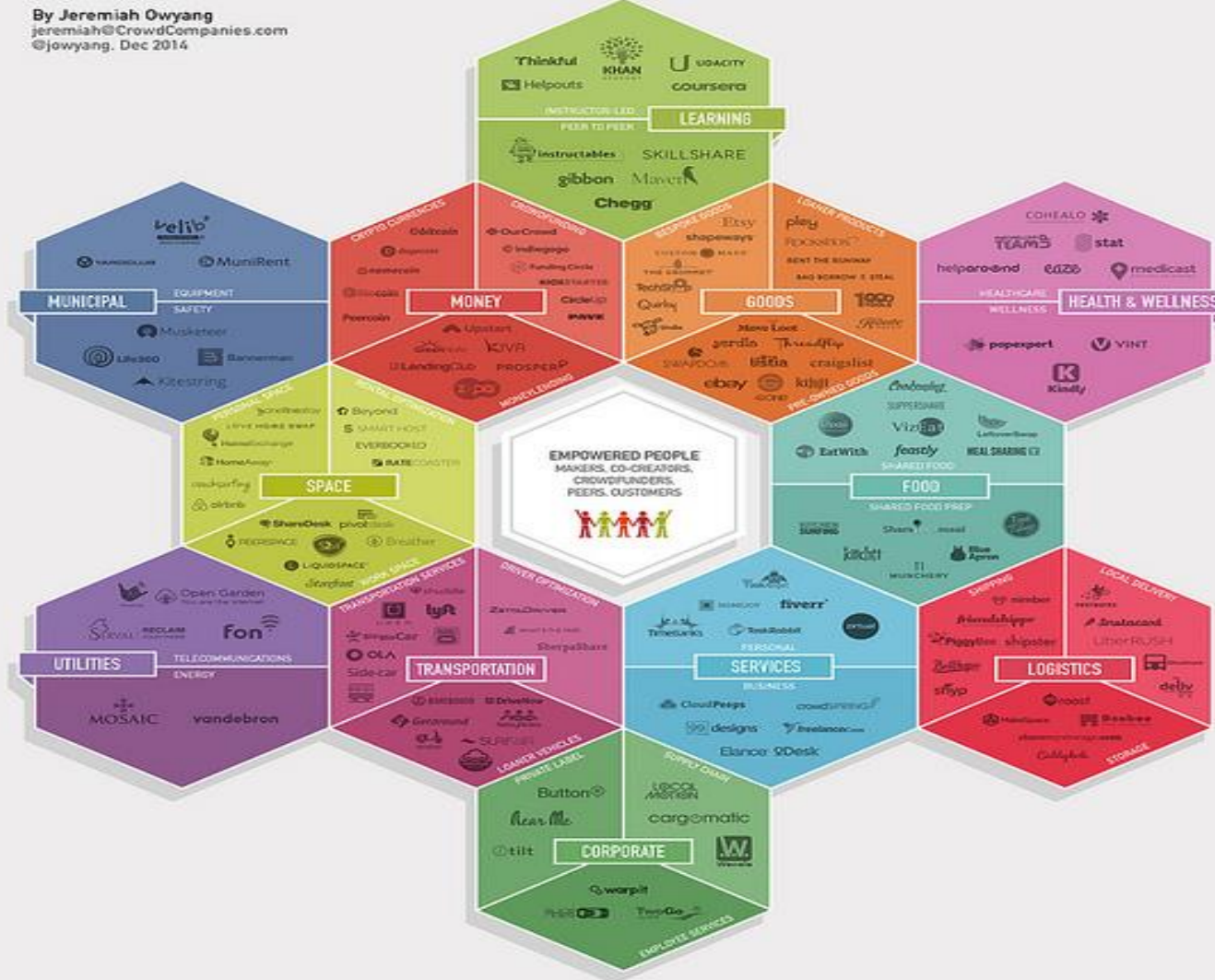
Collaborative Economy Honeycomb Version 2.0

The Collaborative Economy enables people to get what they need from their community. Similarly, in nature, honeycombs are resilient structures that enable many individuals to access, share, and grow resources among a common group.

In the original Honeycomb graphic, six distinct families of startup types were represented by the inner track of hexes. In a very short period of time, this movement has expanded, as reflected in the six additional hexes on the outer perimeter.

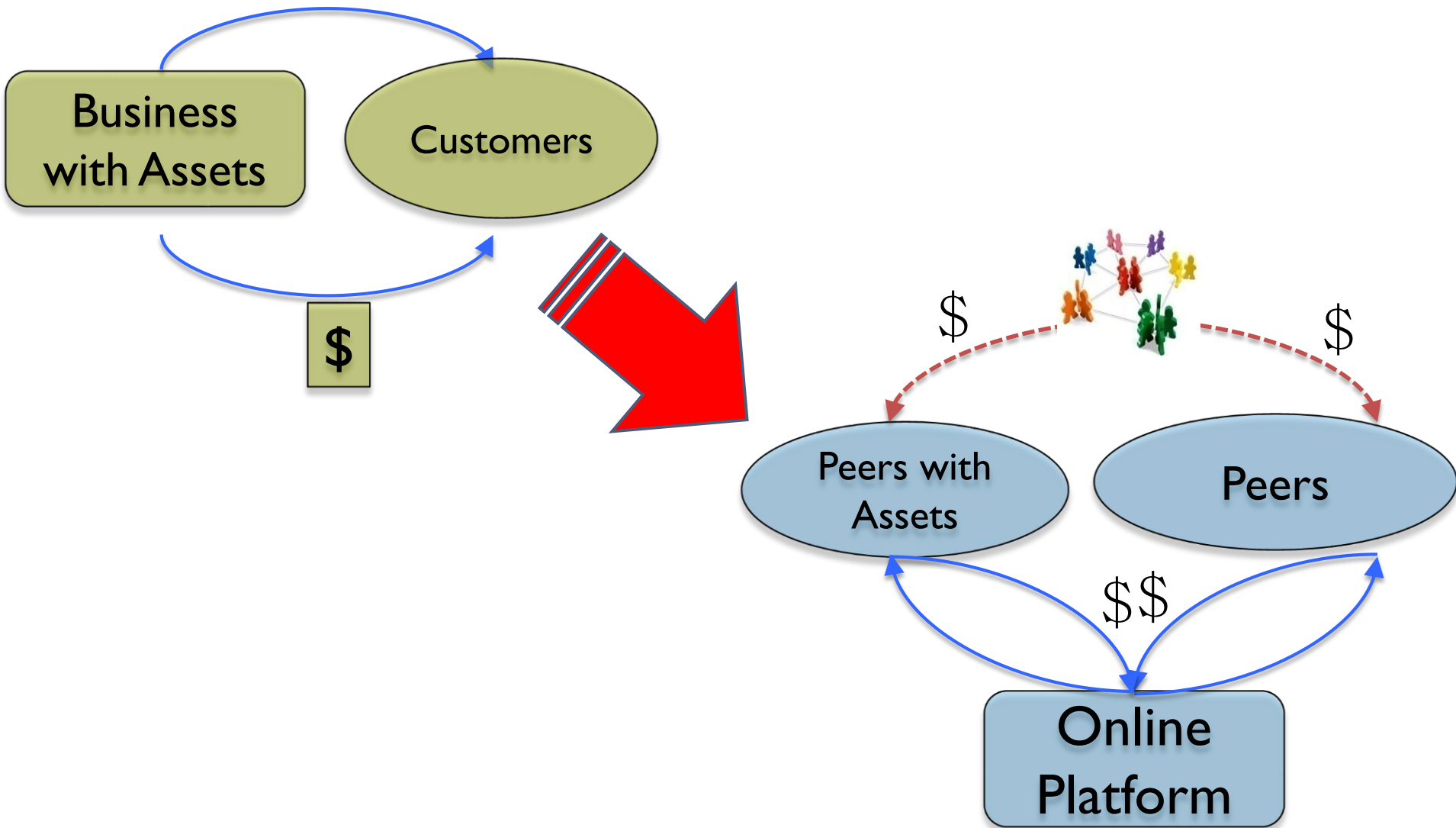
This visual representation of the movement is organized into families, classes, and startup examples. To access a complete directory of over 9,000 startups worldwide, advance to the Mesh Directory, managed by Mesh Labs: <http://meshing.it/>

By Jeremiah Owyang
jeremiah@CrowdCompanies.com
©jowyang, Dec 2014



With input from: Lisa Gansky (@lising), Neal Sorenson (@sorenson), Shervin Pishevar (@shervin), Mike Walsh (@mwalsh), Brian Solis (@briansolis), Alexandra Samuel (@alexasamuel), Bill Johnston (@billjohnston), Angus Nelson (@angusnelson), Aupie Ray (@auperay), Jeff Rodman (@jeffreyrodman), John Shelton (@johnshelton), Jamie Sandford (@jsandford), Anur Sundararajan (@digitalsun), Jonathan Wichmann (@jonathandw), and Vision Critical (@visioncritical).
Design by Vladimir Mirkovic www.transartdesign.com Creative Commons License: Attribution-NonCommercial

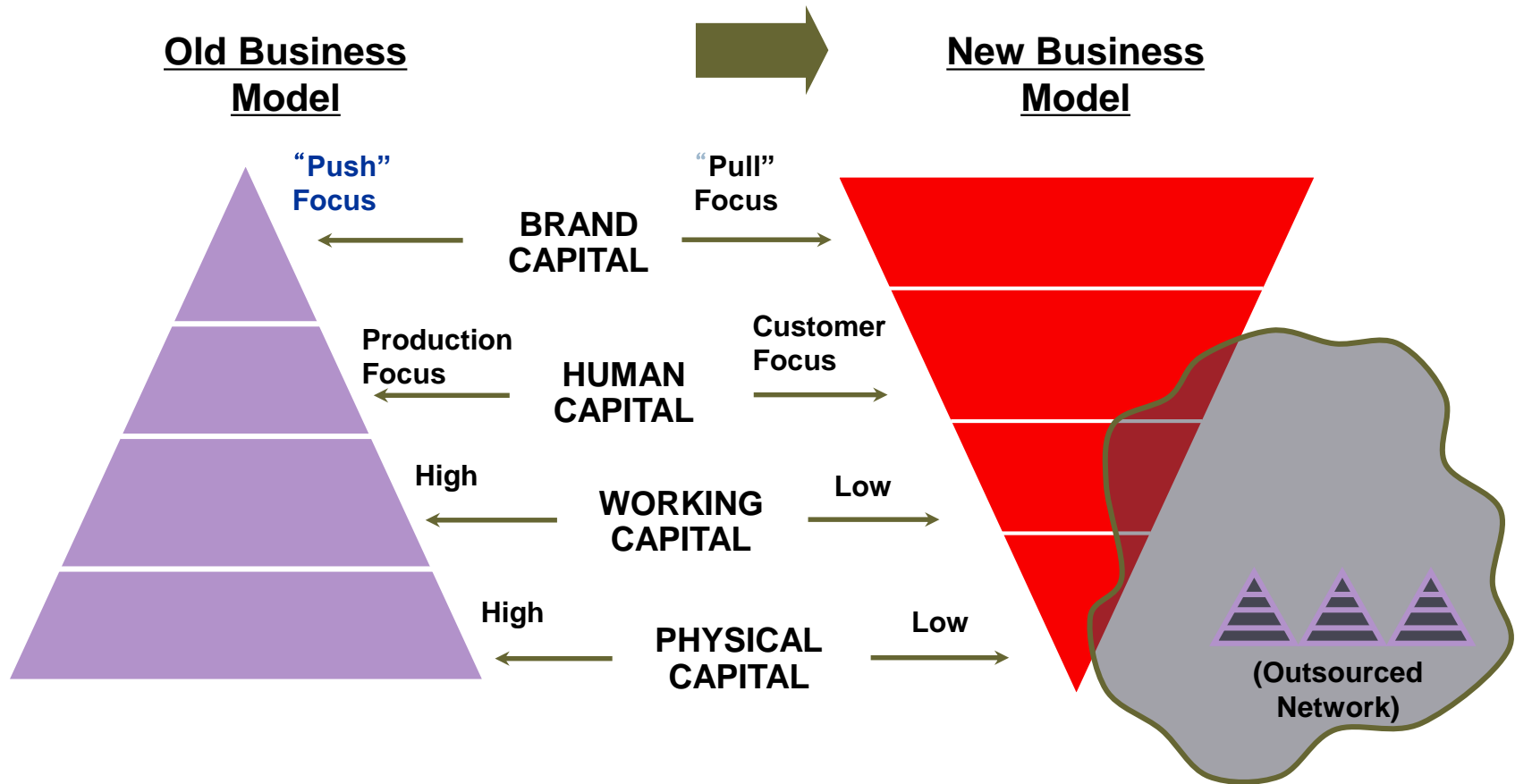
Business Model Evolution From B2C to P2P



Business Models of Sharing Economy

- ▶ Value Propositions of Sharing Economy
 - ▶ Utilization of Idle Assets (Ride Sharing, Bed Sharing)
 - ▶ De-capitalization
 - ▶ Mass Participation in Economy
 - ▶ Efficiency in (Online) Market (Clearing Demand and Supply)
 - ▶ Cost (Ride/Bed Sharing)
 - ▶ Time (Ride Sharing)
 - ▶ Risk or Quality (Crowdfunding)
 - ▶ Other Networked Values (Adverting, Peer Validation, Quality Signaling, Demand Leading)

21st Century Businesses: De-Capitalization & Meta Capitalism

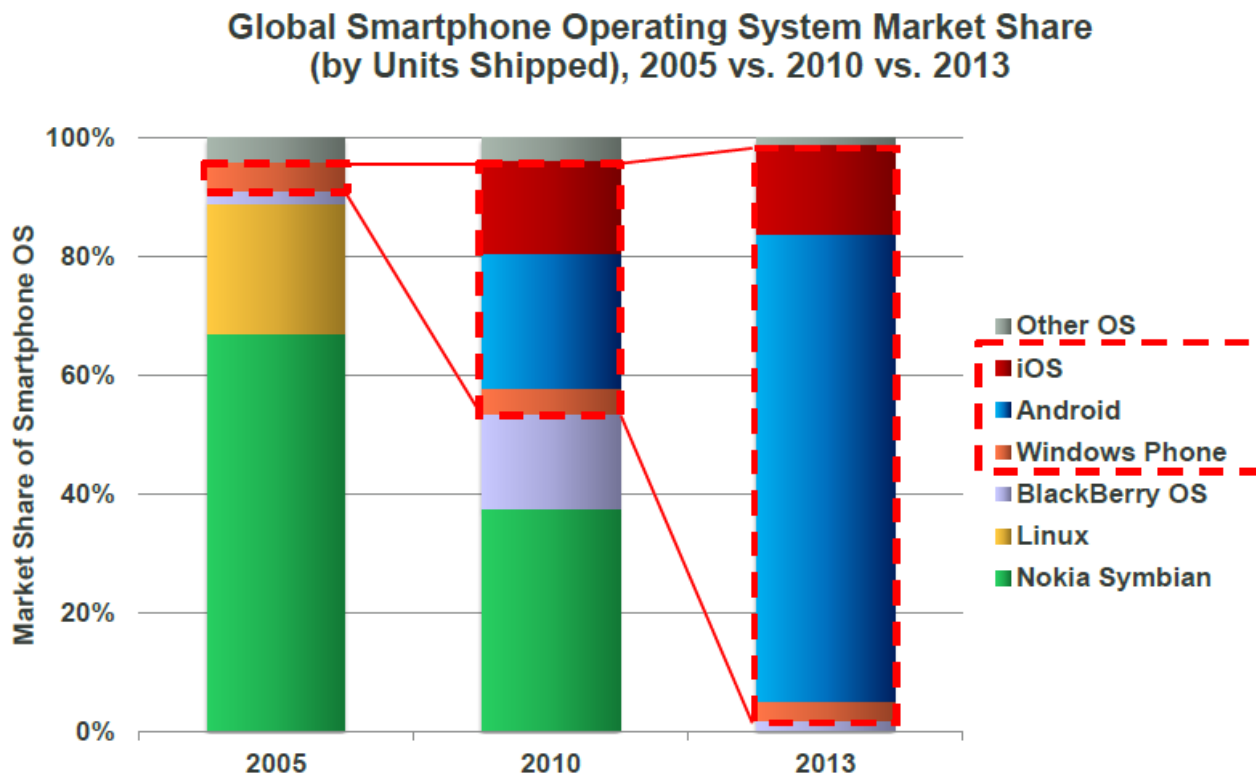


Concerns with Sharing Economy

- ▶ risk absorption or mitigation roles of traditional businesses
 - ▶ Either market is sufficiently efficient to eliminate such risk
 - ▶ Or taken by platform or peers
- ▶ Welfare of participants
 - ▶ Employee versus Self-employed or Freelancers
 - ▶ Customers versus Prosumers
 - ▶ Monopoly profit by platform owners (especially by winner-takes-all)
- ▶ Social cost by disruptive innovations

American Monopoly in Net Economy

Global Smartphone Operating Systems 'Made in USA'.
97% Share from 5% Eight Years Ago



@KPCB

Source: 2005 & 2010 data per Gartner, 2013 data per IDC.

IoE Economy: Winner-takes-all



- ▶ Once in Peak
 - ▶ 140,000 Employees
 - ▶ Market Cap, \$28B
- ▶ Bankrupted now



Instagram

- ▶ Sold to Facebook in 2012
 - ▶ 13 Employees
 - ▶ Market Cap, \$1B
- ▶ Where does the value of \$1B come from?
 - ▶ Employees?
 - ▶ Users

Why Online Channels and e-Commerce?

- ▶ E-Commerce: new ways of trading rather than new goods and services
- ▶ Organizations or various institutional arrangements as the results of choice, subject to the constraints of transaction costs (Cheung, 1987)
- ▶ Market X wins over Market Y if and only if Total Transaction Cost of X \ll That of Y
- ▶ Advantages of Online Channel
 - ▶ Transportation costs
 - ▶ Search costs (standard goods)

Rational Framework for Regulations

- ▶ New Service는 소비자 편익과 사회적 편익을 발생하는 거래인가?
- ▶ New Service는 다른 거래에 비해 사회적비용 (위험)을 더 발생시키는가?
- ▶ New Service의 위험 요인은 불법화해서 원천적 금지라는 방법 이외 다른 방법으로 위험과 비용을 낮출 수 있는 방법이 없는가?



Sharing Economy Business Models in Finance



Financial Sharing Economy

- ▶ Peer-to-Peer Lending or Crowdfunding
- ▶ Innovations
 - ▶ More and efficient access to money
 - ▶ Investment opportunities
 - ▶ Soft information utilization
 - ▶ Economic and efficient matching (less fees by intermediaries)
 - ▶ Future customer select products/services
- ▶ Disruptions
 - ▶ Kills VCs

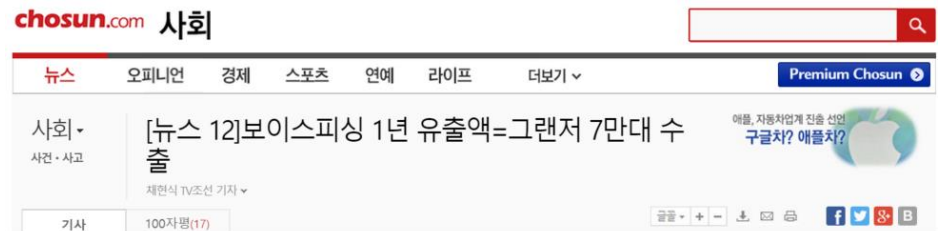


What Prevents FSE?

- ▶ 금융소비자 정보에 관한 규제 – Cloud Computing 기반의 금융사업불가
- ▶ 금융사업자 인가 요건의 자본금 규모에 관한 규제
- ▶ 과도한 보안에 대한 규제
- ▶ 금산분리의 원칙에 의한 기술과 자본의 결합 가능성
- ▶ 정부의 시장개입 및 교란행위에 의한 사업의 위험 증가 및 기회상실
 - ▶ 미소금융, 부채탕감, 안심대출

전자금융피해 급증

- ▶ 2014년 보고된 피해액 약 2100억
- ▶ 전세계에 없는 금융보안 솔루션
- ▶ Microsoft Active X
- ▶ 왜 한국에서만?



Client security measures

- ▶ Digital Certificate
- ▶ Preprinted keycode
- ▶ One time password
- ▶ Anti-keylogger
- ▶ Anti-virus



Two banks in two different legal regimes

	Citibank U.S.	Citibank Korea
Liability Scheme	Strict liability (Regime 1)	Burden of proof on users (Regime 2)
Security Measures	Username and Password	Digital Signature Keycode OTP Anti-Keylogger Anti-Virus
Transfer Limit	Up to \$50,000	Up to \$500,000

Why so much of “smishing” in Korea?

- ▶ Hacking is rare. Mostly Smishing, Phishing, Pharming
- ▶ British vs America cases of ATM Frauds (BK Negligence Liability vs. America's Strict Liability)
- ▶ Only country that transacts all financial transactions in real-time
- ▶ Globally Isolated e-Commerce
- ▶ Locked in Microsoft Web Browser – Isolated from Global Innovations such as Google Translate



Space Sharing Economy Business Models

S h a r i n g
S p a c e



Space Sharing Economy

- ▶ BnB, Parking Spot, Office Space
- ▶ Innovations
 - ▶ Economic matching
 - ▶ Personal touch and experience
- ▶ Disruptions
 - ▶ Kills Hotels

Concerns with Space Sharing Economy

- ▶ Risks to Property Owners
- ▶ Risks to Borrowers (Safety)
- ▶ Infamous Airbnb Incidents (killings and banalization of properties)
- ▶ Solutions
 - ▶ Insurances
 - ▶ Two-way evaluation systems

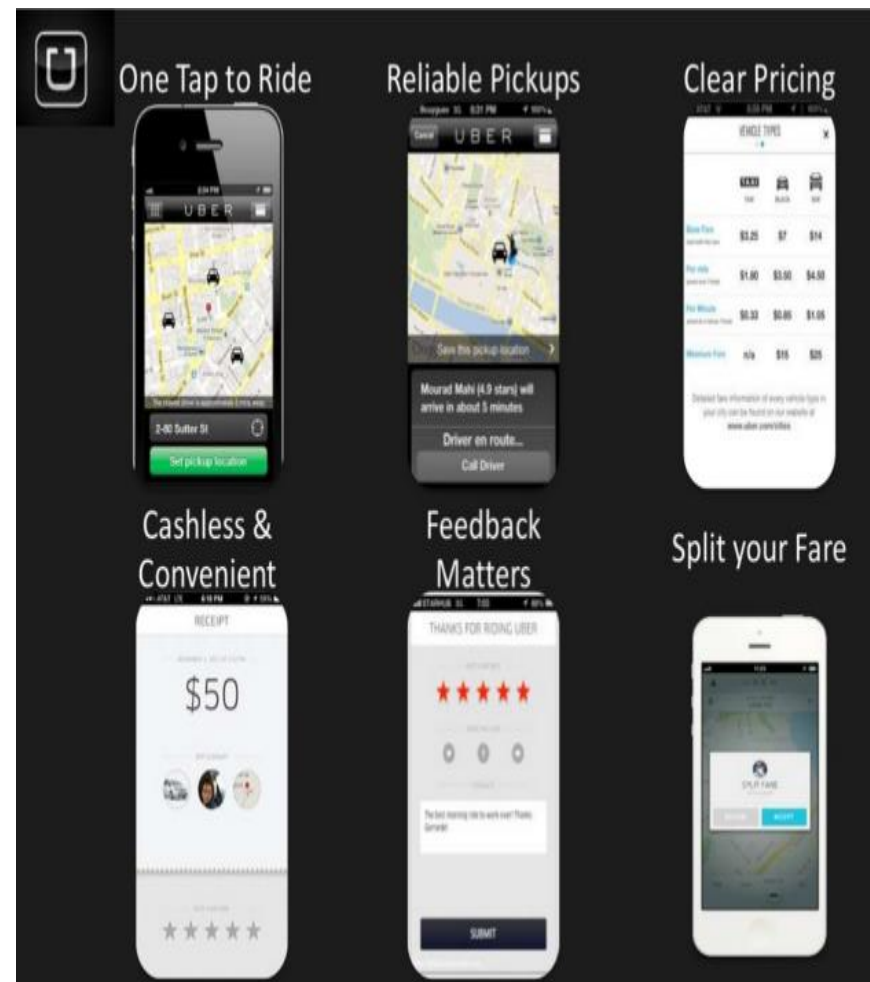


Ride Sharing Economy Business Models



Innovations by Uber

- ▶ App based call – drastically reduces search and communication cost
- ▶ Dynamic Pricing – controlling supply according to traffic situation
- ▶ Risk management by two way feedback mechanism
- ▶ Transparent driving and pricing



Uber Receipts



Receipt

Thanks for riding Uber!

BILLED TO

Irene Macabante
(irene@chixcreative.com)

TRIP REQUEST DATE

April 5, 2012 at 02:41pm

PICKUP LOCATION

505 Harrison St, Seattle, WA

DROPOFF LOCATION

Arrivals Dr, Seattle-Tacoma
International Airport (SEA), SeaTac,
WA

CREDIT CARD

Business Visa - 7151

BILLED TO CARD

\$50.00

Fare Breakdown

CHARGES

Seattle to SeaTac Airport
Rate \$50.00

Charge subtotal \$50.00

TOTALS

Total Fare \$50.00

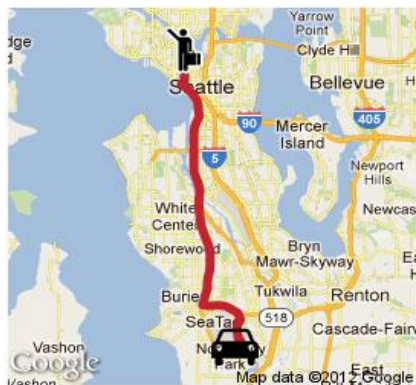
Billed to Card (\$50.00)

Outstanding Balance \$0.00



DRIVER

Hardeep



Thanks for riding Uber!

BILLED TO

TRIP REQUEST DATE

June 15, 2013 at 12:56am

DROPOFF LOCATION

Los Angeles, CA

CREDIT CARD

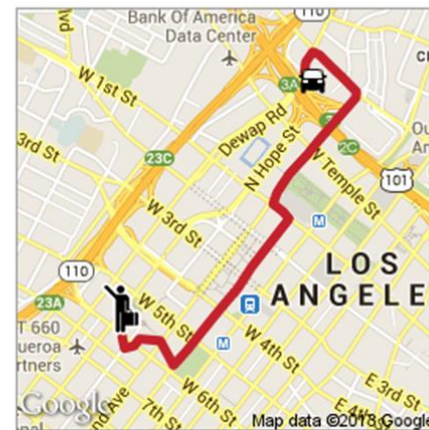
Personal MasterCard -

BILLED TO CARD

\$0.00



DRIVER



Fare Breakdown

CHARGES

Base Fare \$3.00

Distance \$3.64

Time \$0.72

Charge subtotal \$7.36

DISCOUNTS

Rounding Down (\$0.36)

Discount subtotal (\$0.36)

TOTALS

Total Fare \$7.00

Uber Credit (\$7.00)

Outstanding Balance \$0.00

Trip Statistics

DISTANCE

1.65 miles

DURATION

4 minutes, 26 seconds

AVERAGE SPEED

22.28 mph

Uber Technologies, Inc.
182 Howard St #8
San Francisco, CA 94102

Support: supportseattle@uber.com

[View this trip online](#)



Uber에 대한 규제 움직임

- ▶ Nevada 주와 오리곤 주 Portland 시 택시면허 불취득을 이유로 소송 중
- ▶ 2014.12.8 California 검찰이 Uber 소송제기.
 - ▶ 택시기사의 Background Checking에 대한 소비자 기망 (misrepresentation)
 - ▶ 허가 없이 공항에서의 택시 영업행위
 - ▶ Airport 통행료, 안전 운행료 등 불법적인 요금 부과
- ▶ 2014.12 India New Delhi시 Uber기사의 성폭행 사건 후에 Uber 금지 조치. 시의 택시면허 불취득 근거로 금지함.
- ▶ Spain과 태국 또한 불법영업과 기존 택시업자에 대한 불이익을 근거로 Uber 운행 금지 조치
- ▶ Netherlands, Germany, Canada Toronto 또한 택시면허 불취득과 공공의 안전에 대한 위협을 근거로 금지 움직임이 있음.
- ▶ 우리나라는 두 가지 법률적 요건의 미비를 이유로 규제를 하려고 시도하고 있다. 다른 나라와 같이 Taxi 면허와 택시가 구비하기로 한 GPS (위치추적장치, LBS 사업자 허가)의 규제이다.

Liability and Recovery from Crime

- ▶ 정부는 규제만 만들 뿐, 그 시스템이 실패한 경우 정부는 아무런 책임을 지지 않는다. 즉 택시강도가 발생한 경우, 정부의 규제의 불안전성을 근거로 정부를 상대로 소송을 제기할 수 없다.
- ▶ 대리운전의 경우도 업체가 보험을 들었는지의 유무에 대해 소비자 주의를 환기할 뿐, 영세업자가 자체적으로 배상의 능력이 있는지는 의문이다.
- ▶ Uber와 같은 Global Service회사의 경우 피해 구상권을 위한 법률적 행위가 보다 용이하고 (Pursuing Deep Pockets) 구상의 능력이 있는 것으로 판단된다. 이런 면에서 피해 보상의 가능성은 Uber가 더 높다고 볼 수 있다.

Innovation to internalize the transaction cost

- ▶ Uber는 기사의 배경 확인 및 검증을 위해 생체정보, 음성인식 등의 기술을 연구하고 있으며 거짓말 탐지기 등의 기술 도입도 검토하고 있다고 한다.
(http://www.huffingtonpost.com/2014/12/18/uber-background-checks_n_6347630.html)
- ▶ *Uber has started research and development on biometrics and voice verification to build tools for enhanced driver screening, Phillip Cardenas, the company's global safety head.*
- ▶ *The start-up was also exploring new ways to screen drivers, including polygraph tests, and adding its own processes on top of commercial license verifications.*



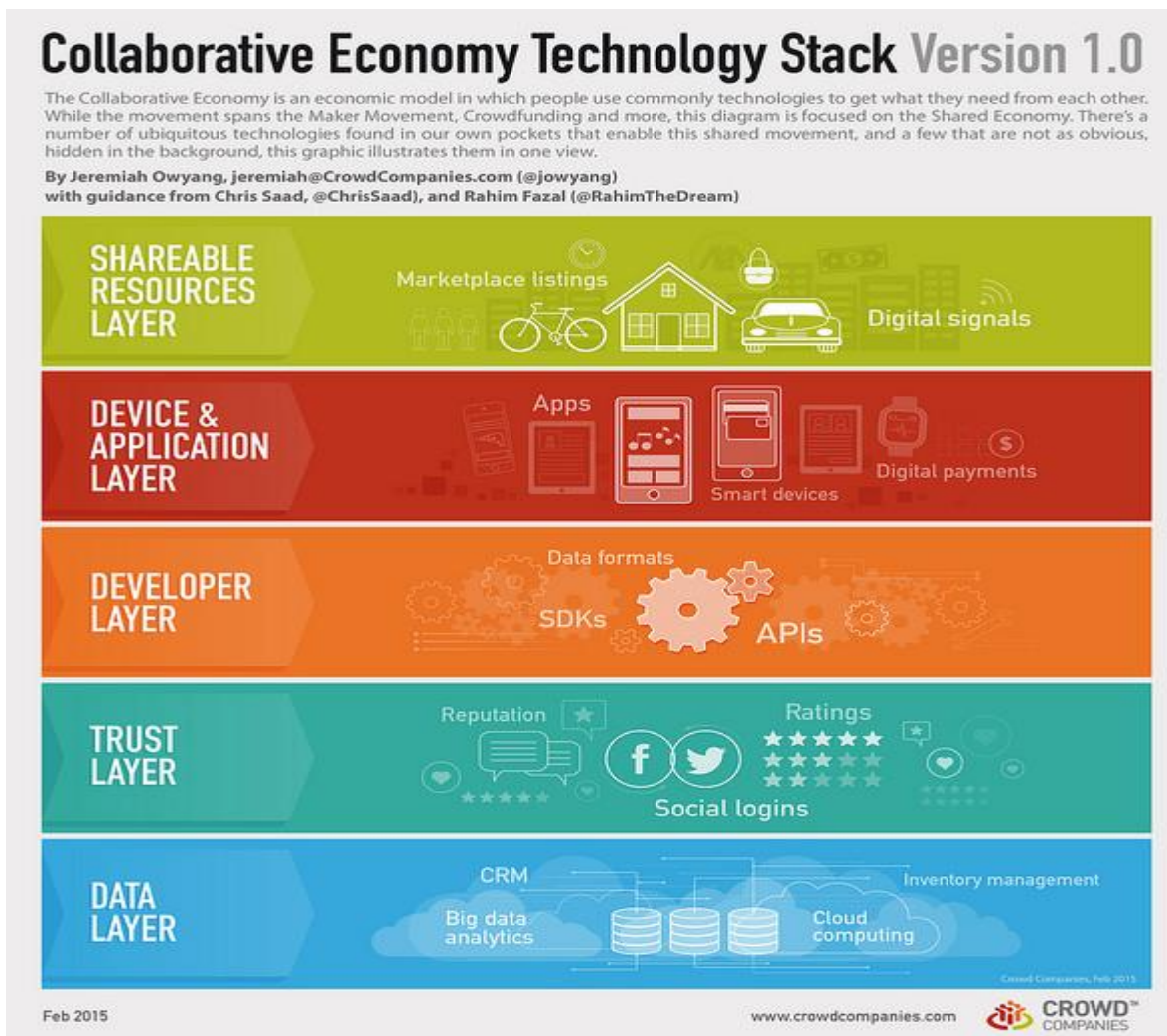
Conclusions

No P2P Business Models in Korea

- ▶ P2P Lending – 대부분 불법
- ▶ Uber – 자가용차량 영업금지 규제
- ▶ P2P Business Model이 B2C Model로 변형되어 적용 시도 중
 - ▶ 가장 큰 잇점인 De-capitalization을 누릴 수 없음
 - ▶ 대중의 새로운 경제 참여를 통한 소득기회를 줄 수 없음

Sharing Economy

- ▶ “resemble the California gold rush of the mid-1800s”



The Sharing Economy's New Middlemen

- ▶ The Power-sharer: Optimize asset selection and utilization
 - ▶ *Breeze* leases cars to participants in sharing economy (drivers for Lyft, shoppers for Instacart, or cleaners for Homejoy)
 - ▶ *YardClub* rents tools.
- ▶ The Power-operator: empower freelancers with insightful tools
 - ▶ *Pillow* cleans after each guest
 - ▶ *ZenDrive*
- ▶ The Power-organizer: organize community and build trust
 - ▶ The ride share guy
 - ▶ Peers.org

The Sharing Economy's New Middlemen, Sophie-Charlotte Moatti, Harvard Business Review, MARCH 5, 2015

Traditional Brands Using the Sharing Economy to Market with the Crowds

1: MasterCard and Lyft



Mastercard partnered with Lyft to extend its “Priceless” marketing campaign during the Christmas holiday. It decked out the interior of Lyft vehicles in Christmas decorations and handed out gifts such as cookies and concert tickets.

2: KLM and Airbnb



3: Comcast and Airbnb



MADD (Mothers Against Drunk Driving) and Uber



To prevent drunk driving on St. Patrick's Day

Honda and Indiegogo

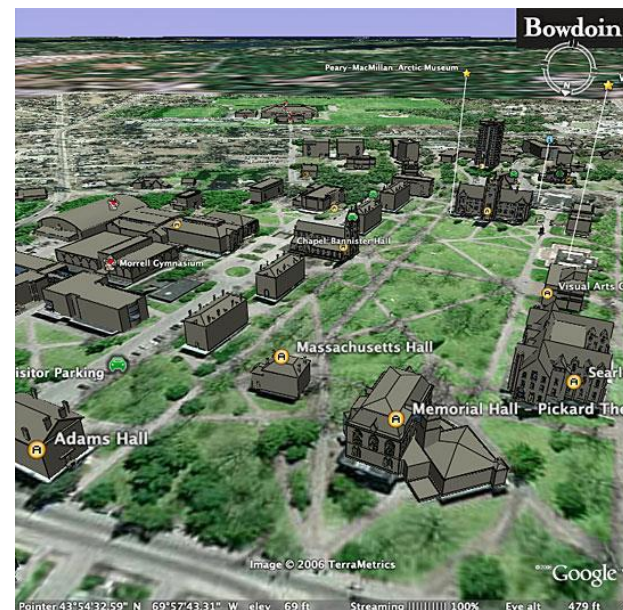
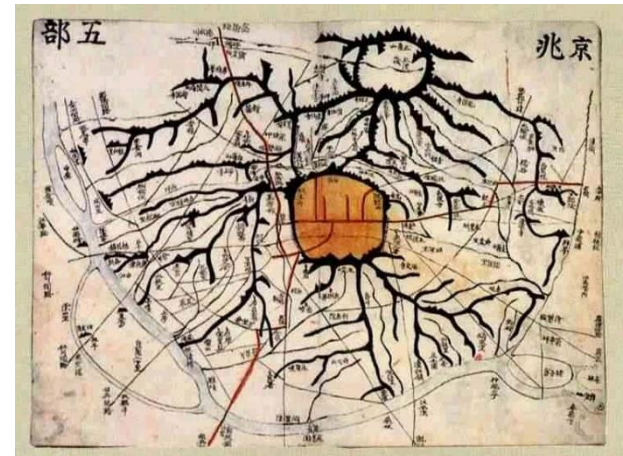


Honda and Indiegogo partnered to preserve iconic American drive-in theaters. The people at Honda figure that without cars there would be no drive-in theaters, so it made sense for them to launch an Indiegogo campaign to engage the crowd in an effort to help save the 368 remaining icons of a bygone, but missed, era.

- ▶ To preserve 368 remaining driven-in theaters

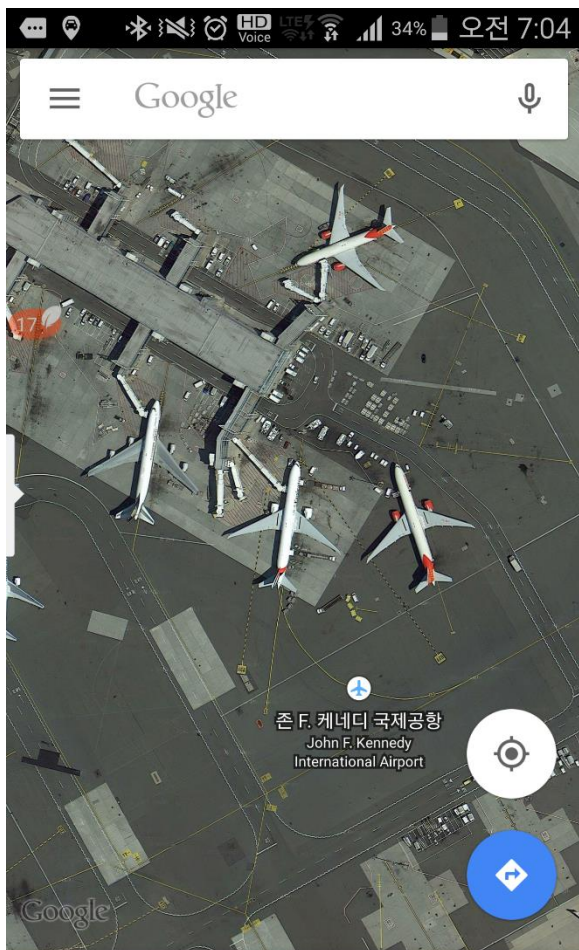
No Google Maps and Google Earth

- ▶ 측량·수로조사 및 지적에 관한 법률과 국가공간정보보안관리규정등의 법령에 따라 국토교통부장관의 허가없이 지도데이터를 국외로 반출할 수 없도록 하고 있다.
- ▶ 2014년 4월 29일 개정안에 따르면 국토교통부장관은 미래부, 외교부, 통일부, 국방부, 안행부, 산업부, 국정원 구성된 협의체의 심의를 통해 국가안보상 문제가 없는 경우 국외로 반출할 수 있다는 식의 여전히 정부의 허가 그것도 국가안보상의 문제가 없는 경우로 한정
- ▶ 현실적으로 다른나라와는 달리 Google Map, Google Earth, iMap 등의 대부분의 기능을 사용할 수 없음
- ▶ LBS 사업자는 위치정보의 보호 및 이용 등에 관한 법률에 의해 방송통신위원회의 허가제 위치정보사업계획의 타당성. 심사 항목
 1. 개인위치정보 보호 관련 기술적·관리적 조치계획
 2. 위치정보사업 관련 설비규모의 적정성
 3. 재정 및 기술적 능력
 4. 그 밖에 사업수행에 필요한 사항



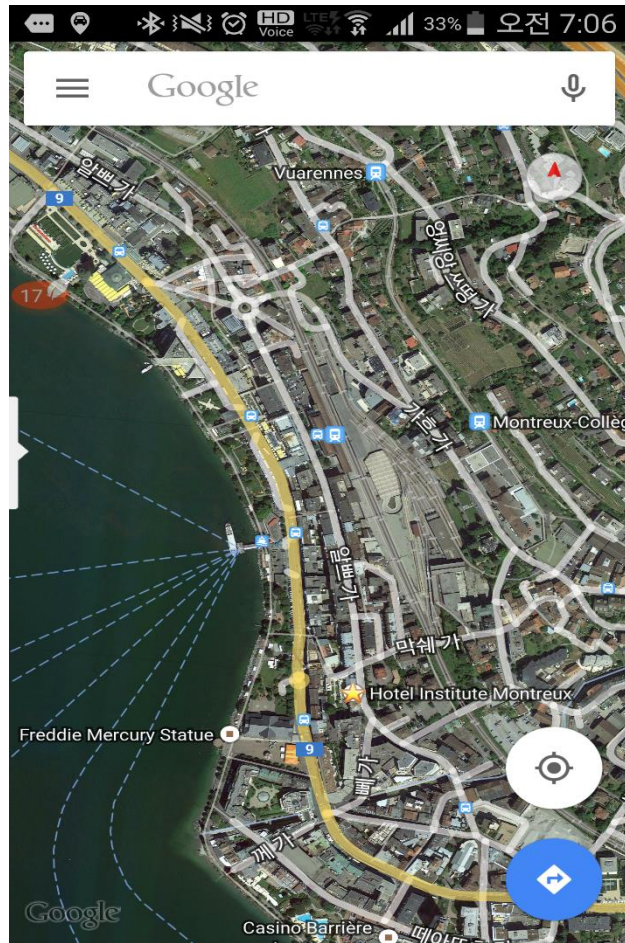
Google Maps – Street Views

▶ JFK

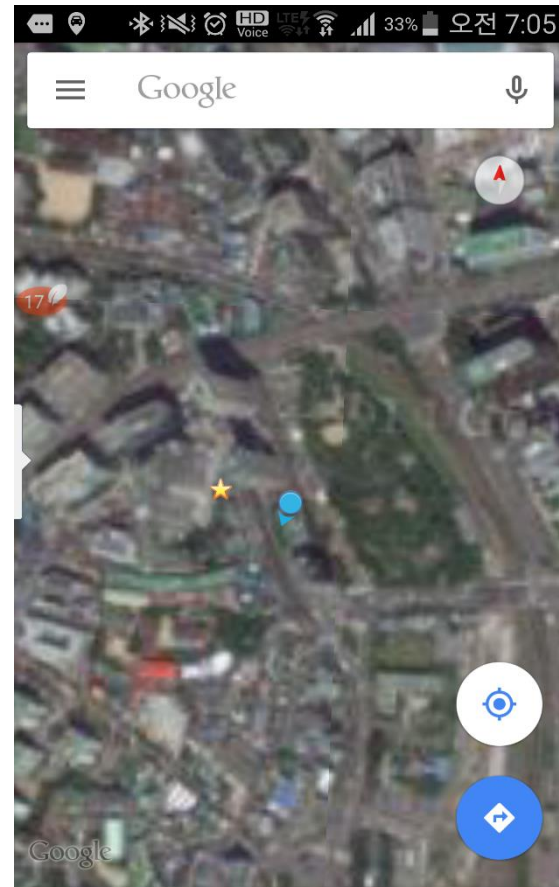


Terminal 4 부근

Montrex



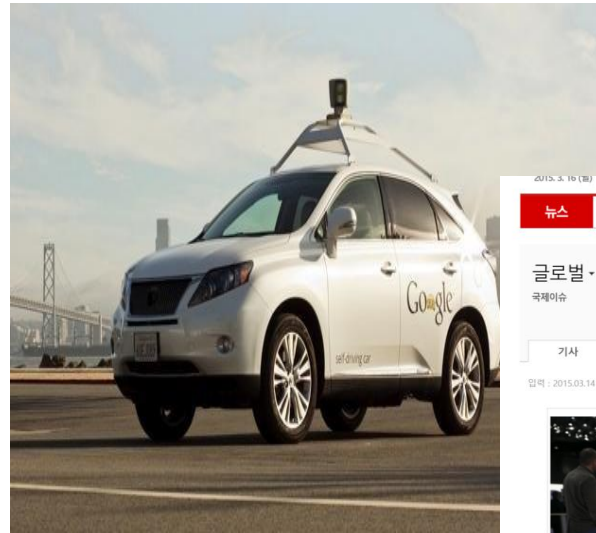
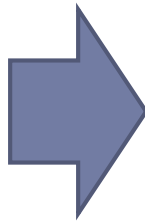
Seoul



주변 탐색

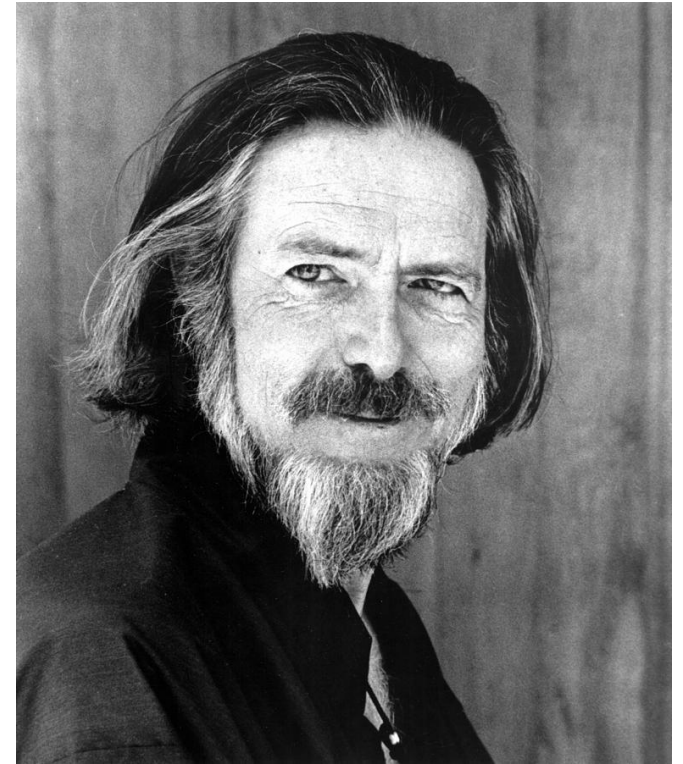
Driverless Car/Drones is an extension of google map

- ▶ “DAPRA’s Debacle in the Desert” (2004)
 - ▶ The winner “Sandstorm” from CMU: 7.4 miles out of 150 miles of Mojave Desert
- ▶ Google’s smart car is fully operational (2012).



Conclusion

“Muddy water is best cleared by leaving it alone.” Alan Watts



Thank You!



Japanese grave with QR identification



Digital Funeral Services

이병태 교수 (KAIST 경영대학)

btlee@kaist.ac.kr

010-2983-6000