

ICT Law & Economy Institute, Sogang University

# Digital Transformation, Data, Innovation and Competition

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# ICT Value Chain and Inter-Layer Competition Issue

## Contents

- Tencent, Netflix, Netmarble(29), Ncsoft(33)\*
  - Relatively little influence on other layer
- \* Ranking, Market Cap, KOSPI(2017.9)

## Platform

- Google, MS, Facebook, Naver(8), Kakao(34)
- Tying(OS), Unfair practice in advertising(search) market

## Network

- SKT(15), KT(40)
- Net Neutrality

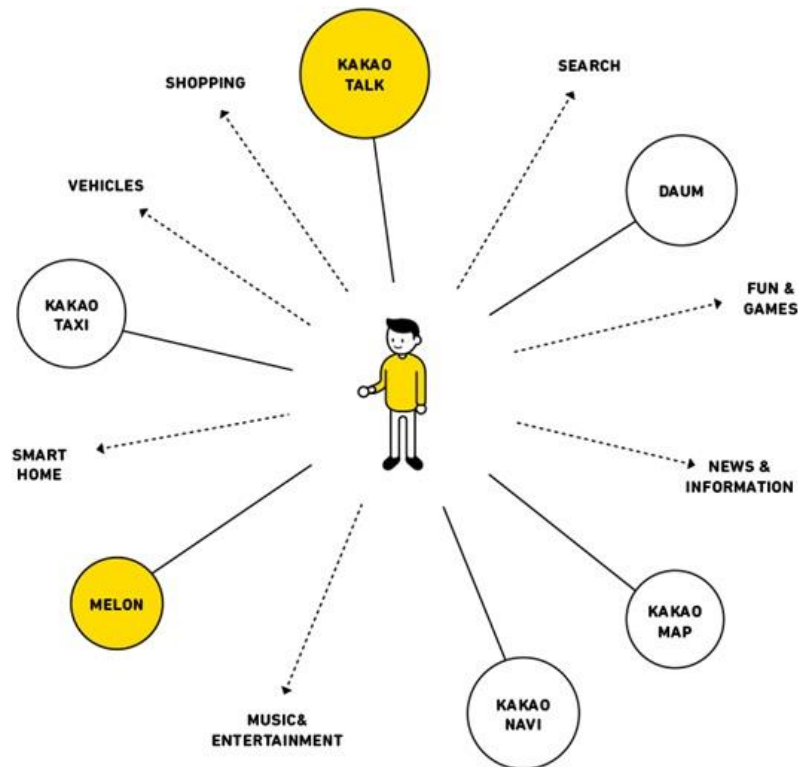
## Device

- Apple, Samsung(1)
- Relatively little influence on other layer

# Growing Platform, Keystone of ICT Ecosystem

## Features of platform

- ✓ Two-Sided market, Network externality
- ✓ Leads technological innovation (AI, Big Data) and future-oriented value (Entrepreneurship)



Source : Kakao Corp.

## Global Market Cap

- Apple (1)
- Google (2)
- Microsoft (3)
- Amazon (4)
- Facebook (6)
- Tencent (11)
- Alibaba (12)
- Samsung (14)
- AT&T (15)
- China Mobile (20)

Source : PWC, 2017.3

# Regulation on Platform, from behavioral to structural regulation

## Phase 1. Behavioral Regulation

- ✓ Regulation on Anti-competitive behavior (tying, unfair contract, foreclosure)
  - ✓ Competition Issue & Jurisdiction of traditional Competition Law

Concern, Worry, Fear ?

- ✓ Growing Market Power
- ✓ Privacy Issue
- ✓ Restraints of innovation

Source of Market Power ?

- ✓ Data(volume, quality)?
- ✓ Creativity, Human Resource

## Phase 2. Structural Regulation

- ✓ Pseudo-competition Issue, but discussed within the framework of competition law
  - ✓ Can data be an essential input(facility) or an entry barrier?

## Discussion : Data as an essential input – negative answers

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Yes !

- ✓ Valuable Input
- ✓ Snowball effect (User Scale – Service Quality Feedback Loop)
  - user data → better service → more users, more data

No !

- ✓ Non rivalrous good, Multi-homing behavior, Data Market
- ✓ More data does not guarantee better service.
- ✓ Historical experiences : Yahoo → Google, MySpace → Facebook

**Valuable but not an Essential Input!!**

Physical or Economical feasibility of constructing “the data set”

# Digital Transformation(4<sup>th</sup> Industrial Revolution) : Extension of Controversy

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Data is the key factor of Digital Transformation.

- ✓ 4<sup>th</sup> Industrial Revolution : Innovation of the entire industry based on the ICT technologies (AI, IoT, Big Data, etc)
- ✓ From the perspective of data, 4<sup>th</sup> Industrial Revolution is the effort to maximize the value of data in each industry.
- ✓ Argument of anti-competitive effect of data could be repeated in other industry, but the environments are quite different.
  - Market structure : Banking – data intensive but competitive market
  - Privacy protection : Health care – sensitive personal information

**No single analytical tool or proper remedy regarding data monopoly!**

# Types of Data and Policy Issues

Source of Data

Human Activity

Others

✓ Privacy

Ex1. Ownership

Ex2. Portability

Who Collect

Private

Public

✓ Data transaction

✓ Open & Utilize public data

Ex3. Market Definition

Ex4. Standardization

Structure of Data

Informal,  
Unstructured

Formal,  
Structured

✓ Technological progress

**Policy Goals : Promoting Innovation(Data Usage) vs Protecting Privacy**

**Regarding data, promoting competition is not a priority issue.**

*Thank you!!!*