



The Antitrust Analysis of Rules and Standards for Software Platforms

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I. BACKGROUND

- **Software platforms play an important role in promoting innovation and economic growth**
 - Innovation in payments, transportation, health and fitness, connected homes and e-commerce which transform our life;
 - Connects the online and offline worlds and restructures traditional industries
- **Digital tools and services spur competition, driving growth and innovation**

II. SOFTWARE PLATFORM BUSINESS MODELS AND EXTERNALITIES

Business Models

- **Software platforms are multi-sided platforms**
 - two-sided (multi-sided) market
 - drive innovation by enabling entrepreneurs to develop “applications” and to reach all the users of the platform

- **Global business ecosystem**
 - Android operating system:
 - Global example:
 - South Korean example: Color-Note and Kakao Talk

Positive Externalities for Software Platforms

Used as a standard by end users, software developers, hardware makers, and other economic agents

Encourage more participation to increase private and social value of the platform

Create application stores and encourage users to find bugs

Negative Externalities

Fragmentation is an example of a negative externality

- Indirect network effects
- reduces the private and social value of a platform
- makes the platform less competitive

Fragmentation is a more serious problem for software platforms that use an open-source license

- Amazon's forked version of Android for Amazon Fire phone
- Unix

III. RULES AND STANDARDS FOR REGULATING EXTERNALITIES

- **Software platforms must employ systems to balance the interests of one set of actors against the other**
 - The value of software platforms depends on the ability to
 - promote positive externalities
 - reduce negative externalities
 - Software platforms usually take governance strategy to manage externalities
 - impose rules and standards
 - monitor the quality of complementary products and exclude those that do not follow rules

IV. COMPETITION POLICY ISSUES

Competition Policy Should Exercise Caution

Governance rules that limit fragmentation increase the value of the software platform

- Increase inter-brand competition but decrease potential intra-brand competition

Fragmentation and its costs to the platform are likely to be larger when the software platform has more participants

Thank You!

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