

ANTITRUST ISSUES ON BIG DATA



Concerns and Counterarguments 1

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- stylized fact
 - Dominant online platforms have much more amount of accessible Big Data than entrants
- Some concerns on Antitrust
 - Big Data plays a role of entry barrier
 - lessening the degree of competition
 - alleviating the incentive for innovation of entrants as well as dominant platforms
 - may incur a privacy issue

⇒ antitrust law should be applied for the issues on Big Data
- Counterarguments
 - need to understand how online platforms use Big Data
 - need to consider the 2-sided business model for applying the antitrust law (holistic approach)

Concerns and Counterarguments 2

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topic	concerns	counterarguments
Amount of Data accessible	<ul style="list-style-type: none">• Because of amount gap of data and quality gap, the entrants cannot play a role of competitive constraints to incumbent dominant online platforms → the incentives for innovation or quality improvement of both entrants and incumbents are lowered	<ul style="list-style-type: none">• Data is everywhere and cheap• Data is just one of inputs<ul style="list-style-type: none">- UI and business model more important• Short lifespan of value of Data

The graph illustrates the relationship between sample size and the margin of error. The y-axis represents the Margin of Error, ranging from 0% to 5% in 1% increments. The x-axis represents the Sample Size, ranging from 0 to 100,000 in increments of 5,000. The curve starts at a high margin of error (approximately 5%) for a very small sample size and rapidly decreases, reaching about 1% at a sample size of 10,000. It continues to decrease more gradually, reaching approximately 0.5% at a sample size of 100,000.

Sample Size	Margin of Error
0	5%
5,000	1.5%
10,000	1%
15,000	0.8%
20,000	0.7%
25,000	0.6%
30,000	0.55%
35,000	0.52%
40,000	0.5%
45,000	0.48%
50,000	0.46%
55,000	0.45%
60,000	0.44%
65,000	0.43%
70,000	0.42%
75,000	0.41%
80,000	0.41%
85,000	0.41%
90,000	0.41%
95,000	0.41%
100,000	0.41%

Concerns and Counterarguments 3

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topic	concerns	counterarguments
The Incentives for Innovation	<ul style="list-style-type: none">• loss of quality theory<ul style="list-style-type: none">- increasing online advertisement degrades quality of search service	<ul style="list-style-type: none">• decreasing online advertisement degrades quality of search-based advertisement service<ul style="list-style-type: none">- give up pursuing profit?
Network Effect	<ul style="list-style-type: none">• feedback loop creates winner-take-all<ul style="list-style-type: none">- more users → more data → quality higher → more users- more users and data → more ads → more investments for quality → more users	<ul style="list-style-type: none">• Data is just one of inputs<ul style="list-style-type: none">- UI and business model more important• advertiser chooses platforms with more users, but users not choose platforms with lots of ads → the intensity of feedback loop weakens
Privacy	<ul style="list-style-type: none">• dominant online platforms have no incentives for privacy protection	<ul style="list-style-type: none">• privacy protection is one of the non-price competition factors<ul style="list-style-type: none">- can compete for transparent privacy protection policy

Concerns and Counterarguments 4

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topic	concerns	counterarguments
Cases	<ul style="list-style-type: none">• Google/DoubleClick<ul style="list-style-type: none">- (Jones Harbour, 2007) privacy protection issue should be examined under antitrust law• Bazaarvoice/PowerReview<ul style="list-style-type: none">- (DoJ and trial court, 2014) no evidence for efficiency enhancement	<ul style="list-style-type: none">• MS/Yahoo!<ul style="list-style-type: none">- (DoJ, 2010) more data can improve quality of search service → can be a competitive constraint to Google• Publicis/Omnicom<ul style="list-style-type: none">- (EC, 2014) competition for big data analysis service may occur