

Dynamic Privacy Choices

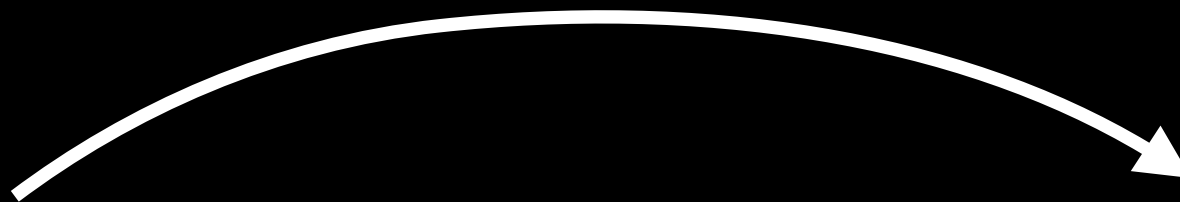
(Shota Ichihashi, Bank of Canada)

In each period...

Consumer
uses platform



Activity produces
data on persistent type



Platform
monetizes info



“Privacy cost”
(e.g., data leakage)

How much will the platform learn about consumers in the end?

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\begin{theorem}
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In the long run, the consumer completely loses privacy.

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\end{theorem}
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The result holds even though the consumer

(1) dislikes data collection;

(2) is forward-looking; and

(3) can produce **no** data by being inactive on platform

Intuition 1: decreasing incentive to protect privacy

When consumers have less privacy,
they have even lower marginal incentive to protect privacy

“Since Google already knows everything about me,
I no longer care whether it monitors my location today.”

Data collection today makes future data collection easier

Intuition 2: collect information gradually

In early periods, consumer cares about (marginal) privacy

So, platform commits to a strict “privacy policy”
(promise to not use cookies, e.g., Facebook in 2004)

Slowly but gradually learns about consumer

Later, relax privacy policy to speed up learning

Consumer’s privacy concerns may delay data collection,
but never stops it.