

UCLA ECONOMICS

Undergraduate Newsletter

Editors: Charles Qian & Adithya Kumar



Applications Open for UCLA Sustainable LA Grand Challenge Undergraduate Research Scholars Program (SLA-URSP course)!

This unique three quarter course aims to cultivate the next generation of sustainability leaders by exploring different aspects of student research in a hands on manner whilst tackling urban sustainability challenges in LA. The course is currently open to 2nd and 3rd year students. **The deadline to apply is May 31, 2018.**

Professor Rosa Matzkin elected to the American Academy of Arts and Sciences!

We are delighted to announce that Professor Rosa Matzkin, a Charles E. Davidson Professor of Economics, was amongst 213 individuals selected across a wide range of fields to become a member of the American Academy of Arts and Sciences. In October 2018, she will be officially inducted into the Academy at the ceremony in Massachusetts.

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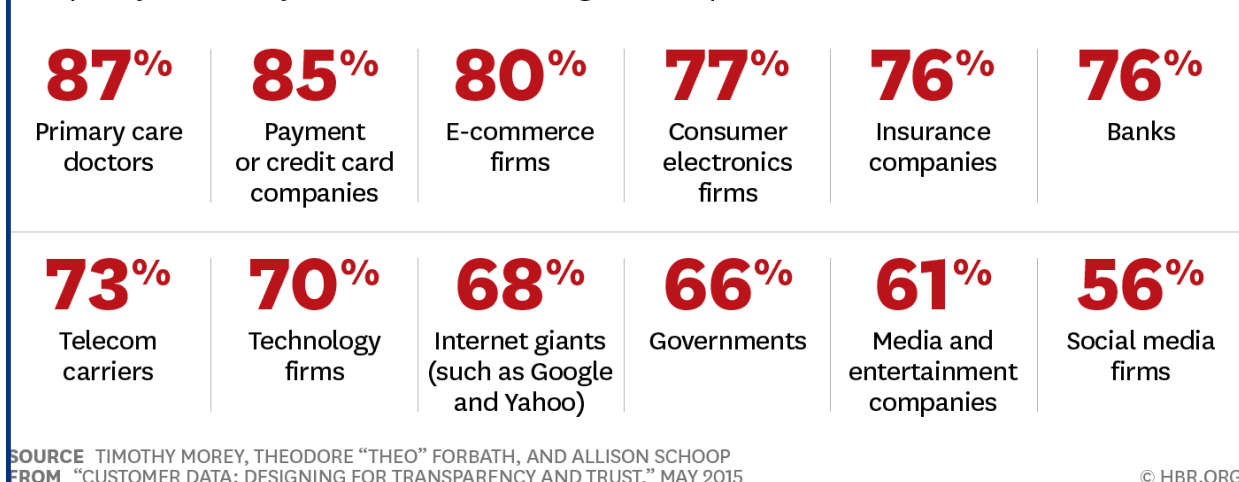
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No Free Lunch—Why Tech Companies Need Access to Your Data

Contributed by Harsh Gupta, UCLA Undergraduate Economics Student

Do They Trust You with Their Data?

Percentages of consumers who said that each category of organization was “trustworthy” or “completely trustworthy” when it came to making sure that personal data was never misused.



The issue of data gathering, and data privacy, has become a central issue of debate in the country because of its ramifications in every aspect of society. With the recency of the Facebook scandal, data gathering, and data privacy have become hotly debated topics. In this article we focus on the economic ramifications. We make the argument that the ability of tech companies, with common-sense regulations, to gather and use data is essential for growth and innovation in the technology sector. We further argue that the ability of tech companies to do so helps the consumers, creating a win-win situation. “Senator, we run ads” responded Mark Zuckerberg to a seemingly trivial question during his congressional testimony.⁴ This simple answer highlights one of the most important and ubiquitous features of the economic model prevalent in the technology industry. The entire technology industry depends on its ability to gather, process and analyze user data. Companies like Facebook, Amazon, Google, and Netflix(FANG) were some of the best performing tech companies in 2017,⁶ and their success was hinged on their ability to leverage user data to present targeted advertisements, information, and show and sell their services to businesses at a premium.

For companies like Facebook and Google, ads are the largest source of revenue.⁷ One may argue why do they need to gather user data for this purpose. They can simply run regular ads that have been prevalent since the 19th Century.⁸ However, on this point they miss out two major issues. Firstly, targeted ads based on user-data are just much more effective, and the abilities of tech companies to provide targeted ads gives them a competitive advantage. The proof of this concept is apparent when one looks at the demise of the newspaper industry where advertising isn’t targeted for every specific reader.¹ Newspapers essentially have the same business model as any tech company that provides free services and relies on advertising for revenue (Even though newspapers charge a subscription fee, ad revenues are by far the most important source of revenue).⁵ However, once advertisers realized that targeted ads online are much more effective, they took their business to technology companies, leaving newspapers in financial ruin.⁹ The total ad revenue for the newspaper industry in 2016 was \$18 billion, just a third of what it was in 2006.⁹ Is this tragic? Yes. Is this uneconomical? No. In terms of pure content, targeted ads are better for consumers. Targeted ads, by definition, are things which the consumers have an affinity for. In all fairness, there is no academic study that shows this, but it is not hard to imagine. If one had to view ads, they would rather view ads on things they are interested in rather than things irrelevant to them.

One may also argue that these companies can charge a subscription fee instead of relying on arguably invasive targeted ads. However, this is a very myopic view. Firstly, most consumers today will be willing to pay for Facebook or Google’s services because they are international behemoths and have rooted themselves deeply within their daily routines. People forget that not too long ago these were just ideas being thrown around in the dorms at Harvard and Stanford, and no one would be willing to pay for these apps in their infancy.

If the tech industry switches to a subscription model, then companies like Facebook and Google would be fine. However, we would be preventing the next Google or Facebook from coming around. The fact that these services were free allowed them to become popular. This is underlined by the fact that every app that was on Apple's Top 20 list for 2017 was free,³ highlighting that consumers have a very low propensity to pay. Even if you are not a luddite, it takes a fair amount of time for you to warm to any new technology, and it would be very hard for any company to popularize their product if they charge for it from the outset. Furthermore, a lot of these companies rely on a network effect: you use it because everyone in your surroundings uses it. You are on Snapchat because your friends are on Snapchat, and you use Slack because your co-workers are on Slack. This level of permeating popularity is only possible on a free app.

Innovation in the technology industry is hinged on the ability of firms to gather consumer data. Let's look at Amazon and Netflix. These companies are successful because of their ability to use data to predict the preferences of their customers and provide a curated service. Apart from the convenience that these technologies offer, they do a better job of understanding the needs and preferences of the consumers. Take the Netflix originals for example. Instead of traditional entertainment companies which relied on the decisions of its executives, Netflix's programming decisions are based on intensive user research.² With the help of this idea, Netflix's original content has taken the entertainment world by storm, giving it a competitive edge. This user research is only possible if user data is collected. Amazon makes similar choices when it comes to deciding which products to stock (or more recently which companies to acquire). Thus, they are able to create a higher quality product.

We can see that the ability of tech companies to utilize user data is a key component of the industry. It enables the companies to create a better-quality product, foster innovation, and compete in a cut-throat industry. An oil company needs to drill its oil reserve to be profitable. Similarly, a tech company needs to drill for data. Having said that, we do acknowledge that companies have a responsibility to protect their users, and like oil companies, if they cause too much pollution, we must regulate them. We do not know when regulations will be passed or how strict the regulations should be, but we can clearly see the necessity of gathering user data for the economic success of tech companies.

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Breach of Trust—Data Gathering Threatens Consumers

Contributed by Kevin Kato, UCLA Undergraduate Economics Student

Whereas the technology of the past was mostly tied to landlines, modern technology is mobile and ubiquitous. According to a recent study, 77% of American adults own a smartphone and 46% of them regard smartphones as essential for living in a connected world.¹ Americans now use their smartphones for an average of five hours per day and rely on them to not only make phone calls but also to track their health, make financial transactions, send content and share intimate moments on social media.² Because Americans rely so heavily on technology to handle basic tasks, they give third-party applications an unprecedented amount of personal information.

Many firms use the massive amount of data they collect to vastly improve their advertising capabilities, allowing them to show consumers advertisements relevant to their interests and to provide valuable services to consumers free of charge. Data gathering is absolutely crucial to attracting advertisers to their platforms. Rampant data gathering, however, exposes consumers to undue economic losses and risks.

Allowing companies to gather an extensive range of information about every facet of people's online habits, from their IP address to their entire browsing history, effectively designates these firms as guardians of their consumers' livelihoods. Because all of these data points can be aggregated and queried to infer extremely sensitive information about an individual's life, such as their medical history, even a single security breach could have catastrophic consequences for targeted individuals.³ In addition, this portfolio of information is often used by online marketplaces to determine the willingness of individual consumers to pay for certain goods and to update the prices of these goods accordingly in real-time. Such accuracy in price discrimination could not plausibly be implemented in brick and mortar stores and unjustly subjects consumers to a loss of their surplus. This practice is especially inconsiderate because consumers are not usually notified when a website stores cookies on their computers, so they unknowingly allow sites to gather private data, such as browsing history and location data.⁴

Given the potentially confidential nature of such data, I contend that companies cannot be trusted to successfully self-regulate to the point where they can adequately thwart data breaches. The recent scandal featuring Facebook and political consulting firm Cambridge Analytica shed light on the dangers of scarcely regulated data gathering. By working with Psychology Professor Aleksandr Kogan under the guise of performing academic research, Cambridge Analytica amassed data on over 50 million user profiles despite only having 270,000 users consent to having their data harvested.⁵ Cambridge Analytica obtained enough information to construct detailed profiles of each user's personality that were then aggregated into a precise strategy to influence the outcome of the 2016 U.S. presidential election.⁵ Although Facebook insists that this is not a breach given that users consent to having their data harvested for academic research purposes, they have acknowledged that the sharing and sale of this data to Cambridge Analytica was a violation they failed to adequately address.⁵ The economic consequences of this scandal are immeasurable, but the social consequences are clear: the same information used for targeting advertisements can also be used nefariously for influencing political elections. Though rational consumers might be expected to limit their disclosure of information if they perceive the risk to be too great, recent behavioral economics studies have shown that consumers cannot grasp all the potential methods for their data to be misused and may assume large risks for little reward.⁴ Thus, regulatory actions must be taken to curb the extent of data gathering to protect consumers from being forced to surrender a reasonable expectation of privacy in order to use online services that are now essential to daily life.

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Note: The views expressed in this newsletter are those of the authors and do not necessarily represent or reflect the views of the UCLA Department of Economics