

Big Tech Analysis Paper

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Depending on the source, there are four or five different big technology companies (Big Tech). These companies include Apple, Alphabet (Google), Microsoft, Meta (Formerly Facebook), and Amazon (Sen, 2017). All of these combined constitute more than 10.5% of the Gross Domestic Product (GDP) of the United States (in 2020), which is a substantial amount of the American Economy. This percentage makes up more than 3.3 trillion dollars and more than 40% of the NASDAQ (Sen, 2017). This amount dropped by about 1% in 2021 due to a market downturn in Meta (Sava, 2021).

The growth of Facebook in its early days was enough to put MySpace out of business (another socially driven platform). Meta, formerly known as Facebook, started around 2004 as a social network that quickly moved into advertising, direct sales, games, a marketplace, and many other features. Initially, it was exclusive to those at Harvard, branching outward to different colleges and the world. Since then, they have branched out, acquiring Instagram as a more story- and picture-based platform. While multiple contributors at Harvard contributed to the coding for the original Facebook/Meta, Mark Zuckerberg is considered the principal founder and current leader at Meta. In the early 2010s, a movie about the ownership situation and how the company developed called The Social Network.

The founders of Apple were Steve Jobs and Tim Cook, two computer programmers from the gaming world that looked to change how people thought about computers. In addition, they looked forward to a future where a computer was in every household. They went even further to put one in each of our hands which came to fruition with the iPhone. This feat was not an immediate change, but Apple leveraged the need for constant communication to its advantage as

cell phones became more popular. While there is some competition from Samsung and Google, most consumers own iPhones.

While both Apple and Meta are practical monopolies that are allowed in many ways to self-regulate, this has become a problem in recent years. Following the loss of President Trump to Joe Biden in the most recent presidential election, there was an Insurrection at the Capitol. The leaders of the insurrection used things such as Facebook Messenger and Groups, along with iMessage, to communicate during the attack and purposes (Sooriyakumaran & Farthing, 2021). While this does not speak to the companies' views, their platforms performed instrumentally in an attack that killed multiple people and almost ended our democracy (Sooriyakumaran & Farthing, 2021). These actions are something that we cannot stand for as a free society.

Google (Alphabet) is one of the fastest-growing companies in history, starting in 1998 with a unique and effective search algorithm that was initially called Backrub. Gmail was soon to follow, first requiring an invitation from someone who already had an account, almost echoing the exclusivity that Facebook would later market and allowing everyone an account. While there are still competitors for the search company started by Larry Page and Sergey Binn, it is hard to say that companies like Firefox or Bing are much competition for the tech giant. Since their advent, they have offered mapping and storage in addition to their popular email services, which allow them to track every movement of the device they exist on. The term "googling" has even replaced searching for something on the internet. Tracking devices over the years has become controversial, especially as even children possess iPhones.

Information about what you search for, where you travel daily, and what you buy are valuable pieces of information for data brokers. An additional revenue stream is information that these companies, including Google, collect about the device owner. At the same time, it is not

only Google but all of the big five tech companies (including Microsoft, Meta, Amazon, and Apple). These companies are unlimited by laws such as HIPPA, which protects medical companies' and doctors' offices' private health information. If you use your phone to search multiple times for something like "Neuromodulator Efficacy," there is nothing to keep your phone from giving that information to a search company.

An example of where this has affected me is back in 2015 I broke my left tibia and fibula and dislocated my ankle while sleepwalking. As I waited on the surgery, I had to order some things from Amazon, such as a leg cover for when I needed to shower and other medical equipment. I also researched the surgery I was going to have. Before I had the surgery, two weeks later, I started receiving mail from The Scooter Store, which specializes in mobility equipment. While I could be wrong about this, I think my purchases on Amazon were to blame.

Amazon was founded pre-2000 by Jeff Bezos and has only continued to grow in popularity. Along with Google and Apple, they offer cloud storage and many other technology initiatives. Lau, Zimmerman, and Schaub (2018) raised privacy concerns over the Alexa Application and devices. Pointing out that deleting your speech history does not always provide a lack of clarity of those words spoken from the databases involved. This lack of privacy is also present in the Google Home system. Like many things in our lives, as we trade our privacy for convenience, we give up more than just privacy to those companies but also to anyone willing to pay the price.

In our home, we have Siri, Alexa, and Google Home, which have keywords they are constantly listening to hear. While I have used this example before, it is not uncommon for my husband and me to speak about things we need in the home and quickly start getting advertisements through the same platforms. A recent example is that we needed a replacement

for our refrigerator water filter. The quickest was almost immediate advertisements on Amazon, followed a week later by Google and YouTube. What we found to be most disturbing was the brand and model were accurate, despite coming new with our home. This refrigerator was not something we purchased as a secondary unit online at a previous time. While I cannot say this did not make it easier when we went to make the purchase, it made us feel uncomfortable about privacy about things we speak of in our home.

Bill Gates and Paul Allen founded Microsoft in the late 1970s, but it has recently grown to include the acquisition of Xbox, LinkedIn, Zoom, and many other companies (Greul & Widdig, 2019). Their version of Windows is on almost all computers, with a version for Apple/Macintosh, which became available in recent years. Their software beat out WordPerfect and others as the most popular format. We even use the platform here at Syracuse, along with other packages in the Office 365 platform. If a customer would like the ease of compatibility with the Windows Machines but the power and popularity of an Apple Framework, they can have both.

While Big Tech makes our lives more integrated and less private daily, the question before us is: how big is too big, and when does it land squarely in monopoly territory? Monopolies stifle competition between companies and lead to a lack of a fair marketplace. This lack of competition can lead to a lack of innovation and a stifled economy (Zhou, 2021). The merger between Time Warner and AT&T has had many accusations that, yet again, this makes it too large. AT&T is mainly known these days for its subpar cellular service and, in my case, underwhelming internet and cable. But before cell phones were in every hand, AT&T was in charge of almost all phone lines in the United States regarding long-distance telecommunication.

AT&T was broken into four companies at the time via the argument that they were a monopoly by the government (Zhou, 2021).

While it is arguable that these companies have become so large because they are just better at the game, I think there are many things to worry about when it comes to Big Tech. Sen (2017) makes the point that if one of the companies, mainly Amazon, were to take out the vast majority of their competitors (something that is already happening as they expand their brands and buy out actual competitors), ending the advertisements that are available on the other platforms. This potentiality could lead to total devastation of the NASDAQ and the United States Economy. In my opinion, this is too much power for any one company to hold. Anti-trust/Trust needs to be taken seriously by the government no matter how many dollars come into the economy.

References

- Greul, N., & Widdig, T. (2019). Deal Logic LinkedIn/Microsoft.
- Lau, J., Zimmerman, B., & Schaub, F. (2018). Alexa, are you listening? Privacy perceptions, concerns and privacy-seeking behaviors with smart speakers. *Proceedings of the ACM on Human-Computer Interaction*, 2(CSCW), 1-31.
- Sava, J. A. (2022, April 7). *Tech GDP as a percent of total U.S. GDP 2021*. Statista. Retrieved October 30, 2022, from <https://www.statista.com/statistics/1239480/united-states-leading-states-by-tech-contribution-to-gross-product/>
- Sen, C. (2017, November 15). *The 'big five' could destroy the tech ecosystem*. Bloomberg.com. Retrieved October 30, 2022, from <https://www.bloomberg.com/opinion/articles/2017-11-15/the-big-five-could-destroy-the-tech-ecosystem>
- Sooriyakumaran, D., & Farthing, R. (2021). Why the era of big tech self-regulation must end. *AQ - Australian Quarterly*, 92(4), 3–10.
<https://search.informit.org/doi/10.3316/agispt.20211005054383>
- Zhou, J. (2021, October 31). Contemporary Comparative Antitrust Analysis and Solutions: A Behavioral Approach.