

ADMN 775.04

PHASE V: Meta Strategic Analysis & Formulation



Emma Battistelli, Shawn Bedard, Hannah Donahue, Libby Hart, Hannah Wirth, & Emma Zupo

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Executive Summary

Meta, formerly known as Facebook until October of 2021, is a global company that envelopes Facebook, Instagram, WhatsApp and Oculus. Meta was formed with a goal of helping people connect, find communities and grow businesses. This rebrand of Facebook to Meta occurred after the company had become wrapped in many previous scandals, including their battles with the Federal Trade Commission as well as their Cambridge Analytica scandal.

Key Resources & Capabilities

Facebook has multiple key resources that are incredibly valuable and integral to the organizational success of the company. A few examples of Facebook's organizational resources are their pool of 2.89 billion active users, their valuable property and equipment, and their multiple patents. Users are a particularly valuable resource as the presence of users that interact with Facebook's platform are what creates the experience of community and media sharing. Similarly, property, equipment, and patents are all unique and valuable to Facebook as they provide a resource that no other company can possess. Positioning in Silicon Valley, the tech hub of the United States, access to expensive and state-of-the-art equipment, and ownership of patents with the rights to certain innovative processes all are integral to the success of Facebook. Facebook's valuable and unique resources also allow the company to have organizational capabilities such as their ability to technological innovate within the VR and AR market and to diversify their business ventures.

Industry Analysis

Since Facebook was launched in 2004, it has skyrocketed to be one of the most-used platforms in its industry, facing competitors like Snapchat, Twitter, LinkedIn and even Google, with 2.89 billion users. The presence of competition in the social media industry is high given the oversaturation of the market. Much of their business model focuses on the sale of user data and targeted advertisements, which many of their competitors have begun to follow suit in recent years.

Repositioning

Meta's repositioning opportunities are primarily focused on entering the virtual reality space with their acquisition of Oculus, expand their product reach on a global scale, and rebuilding data privacy trust between Meta and their consumers. The virtual reality market alone is expected to grow by \$200 million. Building data privacy trust back with consumers and also expanding into untapped markets are opportunities for Meta to grow their company.

Developing AR and VR Technology

A way for Meta to reposition and differentiate themselves from other social media platforms is their developing their position in the AR and VR market. Meta has already acquired Oculus, a virtual reality technology that immerses users in a different reality, aiming to build the Metaverse, a new way of connecting people all across the world. The AR/VR market is expected to grow over \$200 million by 2024, positioning Meta to take advantage of the growing interest in

AR/VR. Currently, Facebook is losing their younger generation as their current user groups age to the 25-34 age group. By strengthening their position in the AR/VR space, investing in the Oculus technology, and building the Metaverse, Facebook will recapture the interest of younger users.

Pay Dividends or Pay for Privacy

Tensions between Facebook and their consumers over Facebook's privacy issues, privacy lawsuits by the FTC, and general lack of trust between consumers and the social media platform forces Facebook to think of solutions to rebuild that valuable trust. To incentivize users to share their data in a legal and consensual way, Meta could offer users dividends whenever their data is utilized by Facebook. Users may form a better relationship with Facebook if they are compensated for sharing their data. Additionally, Meta could offer an option of the Facebook app where users will pay a small fee to have their data not be used and be completely private. Not only will this provide users with the option to keep their data private, but it also could be a potential source of revenue for Meta.

Global Expansion into Untapped Markets

One of Facebook's largest strategic opportunities is to globally expand into previously untapped markets. Facebook can expand the geographic offerings of their current products, particularly through partnerships with native companies. While an obvious customer segment is China with 1.46 billion individuals, China has created major roadblocks to Facebook entering their market. One pathway to entering markets with more totalitarian governments is to expand the offerings of their current apps such as WhatsApp, an existing app with the capability to send texts and calls on a global scale. To bring Facebook's offerings to countries such as China, Facebook should consider partnering with native apps such as WeChat, a popular messaging app in China. Partnering with existing companies may reduce barriers to entry and build a better relationship between Facebook and China.

Implementation

Implementation of the given strategic recommendations comes with a few notable costs, risks, and barriers to implementation. Although Meta has already invested significant funds of \$10 billion just on virtual reality, their entry into a Metaverse will still cost hundreds of billions of dollars. Additionally, barriers to entry of resistance from expansion into countries with more restrictive governments regarding social media will slow Facebook down. The risks of Meta's implementation include competitors also developing their own virtual worlds as the entire world begins to shift towards virtual reality. Other risks include users being unwilling to relinquish control of their data, no matter whether they are paid for it or not.

Introduction

Founded in 2004 by CEO Mark Zuckerberg, Facebook started out as a social media platform to “give people the power to build community and bring the world closer together.” Since its inception, Facebook has gone through a multitude of scandals involving data privacy and security, creating tension and unease between the company and the world. In October of 2021, Facebook announced its name change to Meta, one company to encompass all of Facebook’s current and future technological and entrepreneurial ventures. Meta must now implement a series of strategic initiatives to reposition its company as a trustworthy and technologically advanced powerhouse.

Strategic Analysis

Internal Analysis: Organizational Resources

A key resource of Facebook as a social media company is its users. Worldwide, Facebook has 2.89 billion active users per month. In the United States alone there are 200 million users. The presence of users that interact with Facebook’s platform on any degree of use (daily, weekly, etc.) is what Facebook’s online community and media sharing relies on for function and success. Network effects play to Facebook’s strengths as more users sign up for Facebook to connect with existing users. Facebook utilizes users as a resource in two different ways: users exist as the backbone of how the Facebook platform functions, as well as the creators of consumer behaviors that Facebook analyzes to evolve their technology.

Another one of Facebook’s key resources is their property and equipment. Facebook’s location in Silicon Valley has provided monetary and intellectual value to their business. From 2016 to 2020, the value of the land Facebook owns has increased from \$696 million to \$1,326 million. Similarly, the value of their owned buildings from 2016 to 2020 increased from \$3,109 million to \$17,360 million. Similarly, their equipment (network equipment, computer software, etc.) totaled \$24,461 million in 2020. The location of Facebook in the tech hub of the United States, Silicon Valley, opens Facebook to world-class developers and analysts.

One of Facebook’s more valuable resources is their patents. As of 2019, Facebook was approved for 1,317 patents. Currently, Facebook sits on the list of the top 100 organizations that were granted the most patents in 2018. Some examples of patents Facebook has recently filed include “Recommending objects to a user of a social networking system based on the location of the user” and “Determining user preference of an object from a group of objects maintained by a social networking system.” Patents protect Facebook’s current and future innovations.

Internal Analysis: Organizational Capabilities

The employees at Facebook have the capabilities to see what is in store for the industry in the future, and they have the necessary resources to allow them to act on these capabilities. In 2012, Facebook purchased Instagram for roughly a billion dollars, a very large amount of money for a company with only thirteen employees at the time (Bloomberg). Facebook had the resources in cash to do this, but more importantly they had the capabilities to recognize the growth potential that could result. Instagram was small, but it was growing increasingly popular with younger generations. Analysts at many global banks were projecting the small social media

platform at nearly \$500 million. Zuckerberg had figured the only way to ensure there were zero threats was to buy them and grow them himself. Instagram now has 1,386 million users and is ranked #4 in the most popular social networks worldwide (Statista).

Facebook has the capability to use all of its available resources to further grow and innovate their company. With its large community of users, Facebook can continue to grow their customer pool with the draw of network effects. The data Facebook collects from the user experience gives them the capability to further improve the experience, features, and function of Facebook. With Facebook's physical positioning in Silicon Valley, they have access to the capabilities of some of the best developers and thoughts in the country to further develop technological infrastructure. Furthermore, Facebook's significant investments in equipment gives them the capability to maintain and innovate Facebook's platform.

Facebook's wide variety of resources allows them to have unique organizational capabilities that other organizations may not. For example, one of Facebook's strongest capabilities is its ability to technologically innovate within its space. As mentioned previously, Facebook has invested heavily in their property, equipment, and patents to be able to possess organizational capabilities. One of Facebook's primary organizational capabilities is their ability to technological innovation. With their shift to the Metaverse, Facebook has the technological ability to shift to a completely virtual reality. As an organization, they are making major shifts that are putting them in the position to hold a major competitive advantage within the VR & AR markets. Meta's capability of being able to allow creativity and freedom within their organization is a major reason they are so advanced in the innovation world. To protect their technological innovations, and with the large number of patents Facebook has filed, they also have the capability of creating new technology that cannot be recreated by other competitors, giving Facebook the competitive advantage in social media experience.

Another one of Facebook's organizational capabilities is Meta's breadth and diversification of its business ventures. With the shift to the Metaverse, Facebook has been able to focus on bringing new social connections to their pre-existing companies that they have acquired in the past such as Instagram, WhatsApp, Messenger, and Oculus to expand their line of offerings, physically and virtually. Having a variety of major platforms already popular with the general public, is going to allow Meta's new Metaverse to start off with multiple platforms that are all already somewhat connected. Unlike some rival competitors and future companies, their digital universe will be filled with brands and services that are already under the Meta organization umbrella. This would be different for other companies since they would have to look for other parties to join into the new world in order to make it appealing, unlike Meta who already has all the substance available to fill out their metaverse.

Internal Analysis: VRIO Framework

A following of social media users is not rare in the day and age of technology, but it is incredibly valuable. The simple existence of Facebook's community of users gives Facebook leverage to more individuals and organizations to sign up for the platform. Many social media users will have accounts on Twitter, LinkedIn, etc., but very few other social media platforms have the same traction of a large-scale community and posting social media outlet such as Facebook. Although a competitor could create another form of social media similar to Facebook,

it would be difficult to replicate the unique and substantial online community following Facebook has. The day-to-day users of Facebook capture value every second they are active on Facebook, generating valuable data and content for Facebook.

Facebook's ownership of land and buildings is valuable in that they are assets that appreciate over time. Data shows that the value of Facebook's land and buildings has increased by several million dollars over the span of just a few years. Large plots of land in Silicon Valley are also extremely rare because of their high price and low availability. It would be extremely difficult and costly to build an infrastructure and headquarters that rivals Facebook, given that land is scarce and expensive, as well as the pure scale of Facebook's property. Facebook's physical positioning in Silicon Valley is a long-term asset that allows the company to capture technological and intellectual value to further innovate their social media experience. Similarly, the equipment Facebook has provides the same value for innovation. However, equipment, while it is valuable, is not necessarily rare in the tech world. Additionally, equipment is also imitable, especially if a competitor has enough capital to purchase the same equipment.

Patents are incredibly valuable to Facebook. While the concept of patents is not rare in the business world, the process or technique being patented is rare and is protected by the filing of a patent. The patent cannot be replicated in the exact way by any other entity, giving Facebook an advantage over its potential competitors. Facebook's extensive use of patents has allowed them to capture the value of technology, user experience, and innovation. With their wide range of patents, Facebook can continue to develop software, products, and media that will continue to keep its users and stakeholders engaged.

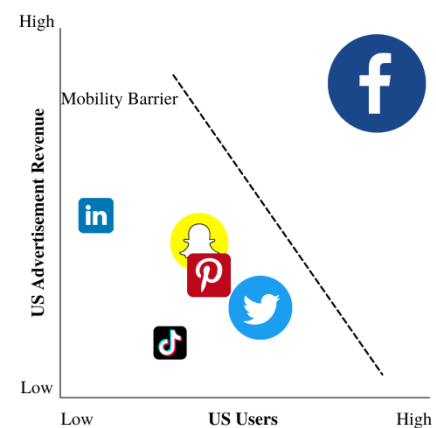
	<i>Valuable</i>	<i>Rare</i>	<i>Inimitable</i>	<i>Organized</i>
<i>Users</i>	Yes	No	Yes	Yes
<i>Land, buildings, and equipment</i>	Yes	Yes	No	Yes
<i>Patents</i>	Yes	Yes	No	Yes
<i>Technological innovation</i>	Yes	Yes	No	Yes
<i>Diversification of business</i>	Yes	Yes	Yes	Yes

External Analysis: Industry

Facebook has been a leader in the social media industry since its initial launch in 2004, taking over social media giants like MySpace. Since then, Facebook has acquired Instagram and dominated the social media space despite it facing negative publicity in the news due to privacy issues. As of July of 2021, Facebook is the most-used social platform. While its 2.89 billion users and counting have stuck around, this does not mean that it doesn't have competitors. In actuality, Facebook is competing with all forms of social media whether they are similar

platforms or not. For example, Snapchat and Facebook each have very different uses, but they are still competitors because Snapchat is an app that can detract attention and use from Facebook. Other competitors, in addition, could include Twitter, TikTok, Reddit, LinkedIn and even Google as a search engine.

In the social media industry, competitive dynamics are present across the environment. Because the industry is very saturated with platforms that consumers alternate between, dynamics are constantly changing to keep up with the evolving features based on each business's actions. In a 2019 press release, Facebook's founder Mark Zuckerberg made it clear that their business model was customer-centric, focusing on connecting users in a free manner thanks to revenue that is made off of advertisements on the platform. To increase this advertisement revenue, Facebook uses targeting to ensure that the advertisements being shown to its users are relevant to their lives, inducing clicks. Zuckerberg ensured that this targeting, however, is not based on selling its users' data and that their top priority is protecting their users' information and privacy. This business model is not unique to just Facebook, as more and more of its competitors are following suit and focusing revenue to be based on advertisements. For example, Twitter's main source of revenue is made up of about 86% advertising and 14% data licensing.



External Analysis: Porter's Five Forces

When thinking in terms of Porter's Five Forces, Facebook constantly has a competitive rivalry with other social media platforms. There is a threat of new entrants if a social platform rises in popularity quickly and detracts from Facebook's usage, like TikTok's rise to popularity for example. However, there is more of a threat of substitutes, as users can quickly and easily switch social platforms when they want and still be entertained. The bargaining power of buyers is incredibly strong but also leans in Facebook's favor as they are the social platform with the most users/buyers. Lastly, for Porter's Five Forces, the bargaining power of suppliers can be thought of with companies such as Apple. Apple products like the iPhone or MacBook are what allow users to access the Facebook platform, so when they change their privacy policies to protect users, Facebook cannot access user data as easily, making it more difficult to target advertisements and therefore create revenue. Internet service providers (ISP) can also make it more difficult for Facebook to reach its users, and if there are particular standards or "costs" of the ISP, then this reduces the availability of Facebook for users.

External Analysis: Macro Environment

There are currently a variety of dynamic trends shaping the social media industry. Due to the COVID-19 pandemic creating a rise in digital use, there was also an uptick in views of livestream. According to Sprout Social, for Instagram and Facebook Live they saw a double in views in just one week. Along with livestreams, there was also a rise in instant messaging throughout the sites as well. Live streams will continue to be a valuable source of marketing for many firms and are expected to remain popular. Despite increased digital and social media use

from COVID-19, revenue growth for this industry has decreased due to limited advertising spending (SproutSocial).

Another dynamic trend is social commerce. Social media is always finding ways to create a high-quality user experience, and commerce on these platforms is becoming extremely convenient. An example is Instagram creating product tanks and checkouts without even leaving the app, and Facebook allowing users to create their own shop where consumers can purchase items right within the platform. Aside from convenience, a majority of social media users utilize social media to engage in research on products they are interested in. Statistics state that 50% of 16-24-year-olds research products through social media and that 14% believe just a “buy” button would increase chances of purchase. That being said, social media commerce is a best practice for businesses and will likely remain in the future (SproutSocial).

In terms of social dynamics, one thing to consider is the increase in raising awareness of acts of social injustice. Social media has become the platform for raising awareness from average consumers and various businesses. According to Accenture, 29% of shoppers would switch to a brand that is focused on promoting diversity and inclusion, which displays the relevance of this aspect (SproutSocial). Also, following the death of George Floyd on May 25th, 2020, there were nearly 8.8 million uses of #BlackLivesMatter by May 28th (pewresearch.org).

Political	Economic	Social	Technological	Legal
<p>Censorship in certain countries with totalitarian governments, particularly China, has affected many social media apps as they attempt to expand their geographic range.</p> <p>Facebook has been banned in China since 2009 over non-compliance to China's censorship rules.</p>	<p>Despite social media usage increasing during COVID-19 - from 54 minutes prior to 2020 to 65 minutes according to Statista - spending on advertising decreased, causing revenue to decrease for social media platforms.</p> <p>Although</p>	<p>Due to acts of injustice throughout 2020, you saw not only brands take a stance and spread awareness through social media, but also individual users.</p> <p>3 days after the death of George Floyd, #BlackLivesMatter was used nearly 8.8 million times.</p>	<p>Rapid increases in technology have allowed social media companies to grow their platforms.</p> <p>4.66 billion people (59.5% of the world's population) have access to the Internet worldwide, allowing them to access social media.</p>	<p>As technological innovation occurs, more legal regulations are put in place to protect consumers.</p> <p>China's censorship ban of socially or politically sensitive content and the United States FTC's \$5 billion penalty of Facebook for violation of user privacy rights are two examples of legalities Facebook must comply with.</p> <p>Many companies are also enhancing their privacy policies, such as Apple's iOS privacy policy, which prevents Facebook from collecting more user data.</p>

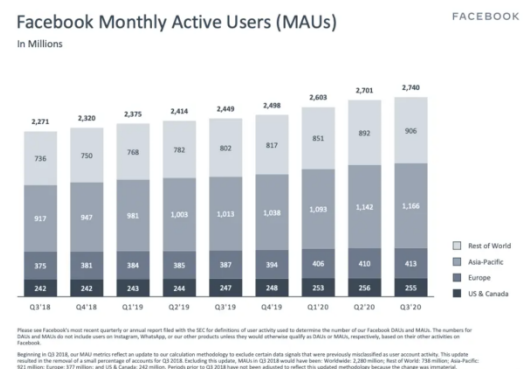
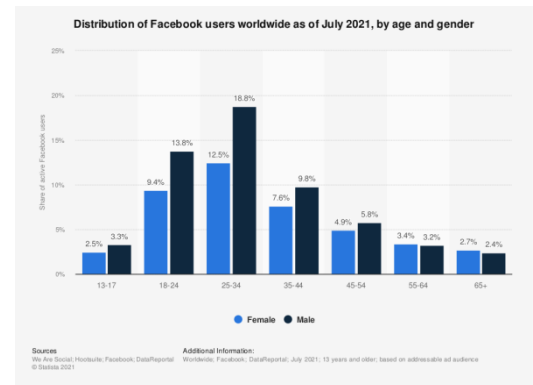
External Analysis: Customers

Facebook is a social media platform that is used by all age demographics. Being a social network, the largest segment of their users range between the ages of 25-34 years old, which is higher in comparison to others like Instagram and Twitter, who have 70% and 42% of their client base between the ages of 18-25 years old. Facebook has 70% of its users being below the age of 45, putting them in between both the younger generations and older generation of people. According to the graph below, looking at the generations between 18-34 years old, we can see that there are more male users using the site compared to females. This trend does not follow at the ends of the graph as we see the percentages even out to about even.

Facebook is a global company that has a reach in numerous different countries, cultures, and communities. Currently, Facebook has the most users that are from either North America, Europe, and Asia-Pacific areas. Over the past few years, Facebook has emerged in the European market, acquiring more users each year compared to the North American market. While it is good to see Facebook growing in other areas of the world, they are slowly losing their place in the U.S market. This is concerning since they are an American company with their headquarters being based in the United States. Overall, Facebook has been growing in the markets they operate in including focusing on expanding in the rest of the world but seem to be struggling within their American market.

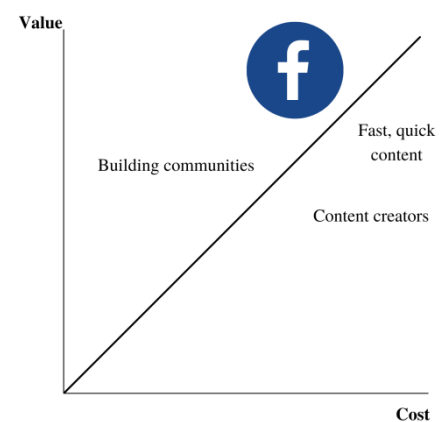
Looking ahead in the future, it is clear that the users already on Facebook are continuing to grow older as the company gets older, but they are lacking in capturing the new younger generations that are now moving into the online world. Improving in this area is critical because if Facebook wants to maintain its presence as a top social media network, it will have to capture more of the younger generation that will remain active for a long period of time. Similar to when Facebook first started, most of their clients were young but have grown older which is why their customer base is so much older than their newer competitors. Similar to having to focus on the younger generation, Facebook should also be pushing to regain its dominance in the U.S market. North America is a massive entertainment culture where Facebook can refocus their efforts to regain their market share.

Looking at the age demographics of Facebook and what drives the value for each age group is extremely important as they all have different expectations. When examining the new age generation, simply by looking at rival companies who have been striving in this demographic we can tell that content and information being available is what pushed this segment. Companies



like Snapchat and TikTok have capitalized on being able to create short but plentiful amounts of videos and content that keeps users engaged. Facebook should bring in more content creators, create and put out relevant content fast and efficiently for younger users. Looking at the older generation that uses Facebook, it is important to not forget about this growing segment. For the older generation, Facebook is about connecting with friends, family, businesses and providing news content that meets their needs and desires. Facebook is stuck in the middle of having to meet the needs of a completely different market. If they can capitalize on it properly, it could be what separates Facebook from the rest of the social media networks.

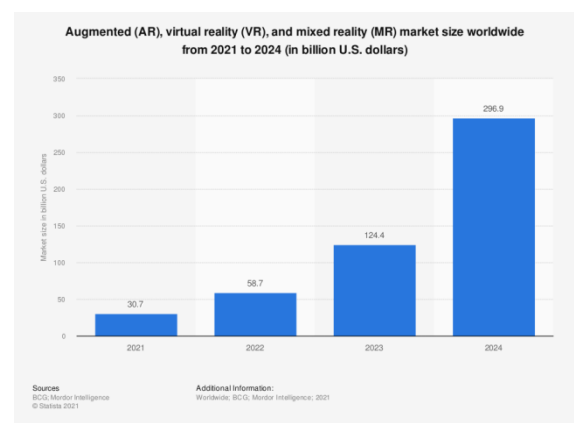
When looking at what drives value to consumers, it is also important to think of the related cost drivers. Looking at the younger generation, one of the most costly items would be improving the overall ability of the site to meet the needs of fast, quick content. Facebook will also need to spend a large amount of money on content creators. Facebook has done a similar tactic competing in the video/gaming industry. Although these costs would be expensive and difficult to put in place, they will help drive the value to the younger generation. On the other hand, the older generation does not have many costs involved as they are comfortable with the existing infrastructure and already enjoy connecting with friends. Facebook could invest heavily in creating better communities within their online network, taking a similar approach to companies such as Reddit who only focus on groups of communities. This strategy will help in the long run with their primary users aging. The middle generations are simply a combination of both groups with people leaning more one way or the other, which is why Facebook should not focus directly on them when looking to create new future value.



Strategic Formulation

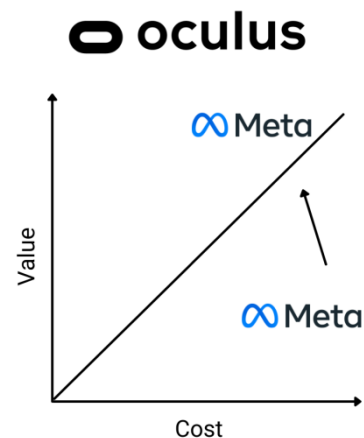
(Re)Positioning Opportunities

Since the recent announcement of Facebook being renamed as Meta, the company's repositioning against its competitors has already begun. While Facebook remains the most-used social media platform, the platform's purpose can be easily replicated and cost little to nothing for consumers. It is important that Facebook innovate and differentiate itself from competitors like Twitter, LinkedIn, and even Google. Facebook's 2021 worldwide brand value stands at \$81.48 billion, far behind its competitor in terms of search engines, Google, which stands at \$191.22 billion in brand value (Brand Finance, 2021). Understanding Facebook's value is important in understanding its strategic positioning framework in comparison to its competitors and the costs that Facebook and its consumers incur.



Moving forward, Facebook is beginning to transition into new types of acquired technology such as Oculus, which is a virtual reality technology that immerses the user in a different reality through a headset and a recently announced Haptic Glove. The development of Oculus's technology as a pivotal part of Facebook's rebranding will drive Meta's position up on the value and cost framework. While this technology was technically already established and was merely acquired by Facebook, none of their competitors has anything like this, giving them an advantage in their market in terms of product offerings. Facebook acquiring Oculus, a new technology unrivaled by any other competitor, creates new value for Meta in their rebranding. The market size of virtual reality/augmented reality is expected to grow by over \$200 million by 2024, which puts Facebook and Meta at the forefront of this market in relation to social media platforms (BCG, 2021).

In being able to create new user experiences for Facebook through its relationship with Oculus, this opportunity also strengthens Facebook's future growth and ability to stay popular and used by consumers as technology evolves. In 2020, data was collected to understand the interest in virtual reality among age groups on a scale of 1-5, 1 being not at all interested and 5 being very interested. The data showed that of those in the 18-34-year-old age group, 27% of respondents reported a 5 on the interest scale, meaning they were very interested (Vorhaus Advisors, 2020). This younger demographic interested in virtual reality goes hand-in-hand with Facebook's venture into virtual reality, as it can use a younger audience to carry the business in the future. By continuing to strategically differentiate itself, Facebook can hold and strengthen its current market position moving forward.



Geographic Opportunities:

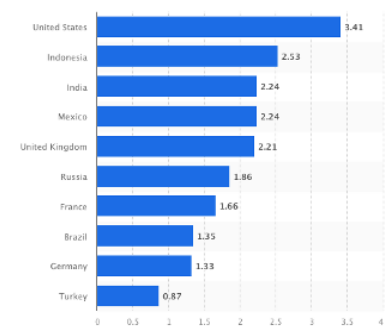
Meta Global Overview

With nearly 3 billion users, Facebook is a globally available platform that is actively used by individuals in the western hemisphere and is continuing to grow throughout the Asia Pacific. Based on an analysis, Facebook remains to be the leading social network in 154 out of 167 countries (vincos.it). However, due to totalitarian governments abiding by censorship policies, there are a handful of countries throughout the globe that have banned the use of Facebook for their citizens. These countries include China, Iran, and North Korea (makeuseof.com). China alone has a population of 1.41 billion individuals, taking away a great source of traffic, users, and revenue from Facebook and the rest of their product line.



Expanding Meta's Product Line on a Global Scale

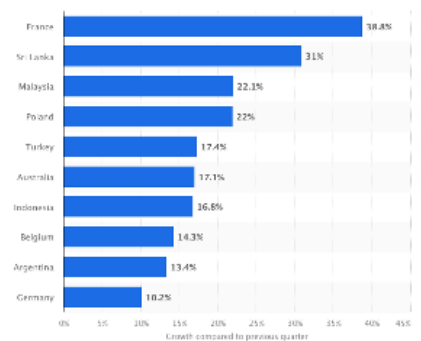
Meta, formerly Facebook, has a multitude of products aside from social networking, including messaging services, photo/video sharing, augmented reality, and more. Aside from Facebook, some of their largest acquisitions are Instagram, WhatsApp, Oculus VR, Onavo, and Beluga. In terms of global expansion, Meta can prioritize their time on expanding their various lines of business on an international scale. Specifically, Meta should focus on expanding user rates of WhatsApp in specific regions where the market hasn't reached its full potential, particularly since WhatsApp has tailored itself as an "international messaging app."



WhatsApp

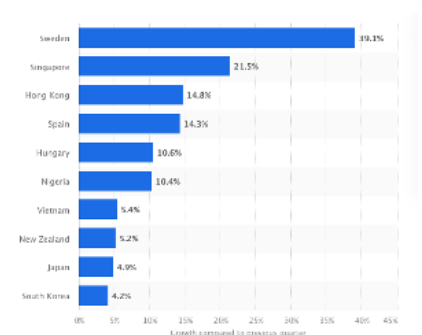
WhatsApp, launched in 2009 and acquired by Meta in 2014, is a messenger and calling service available to users all throughout the world. The purpose of this service is to provide a cost leader in terms of international standard text messaging. WhatsApp allows users to send messages and/or calls directly to another user at no cost, no matter their location, on a global scale (Investopedia). The largest market for WhatsApp currently is India, with 487.5 million users, followed by Brazil with 118.5 million users.

In 2021, WhatsApp is now considered the most popular mobile international messaging app in the globe with two billion users, surpassing Facebook messenger. In terms of overall social networks, it is the third most popular, after Facebook and YouTube. Despite WhatsApp being used on a global scale, the United States user rate has recently grown, as it had the most downloads from the Apple app store in Q1 2021. In the first quarter of this past year, the top three countries with the most downloads of the app were the United States at 3.41 million, Indonesia at 2.53, and India at 2.24 (see right).



In terms of countries where the user growth has seen the largest increase in Q1 compared to the quarter prior, France saw a 38.8% growth and Sri Lanka saw a 31% growth in downloads from the iOS App Store and Sweden saw a 39.1% and Singapore with a 21.5% growth in one quarter from the Google Play Store.

WhatsApp's largest competitor outside of Facebook Messenger is WeChat, a mobile messaging app developed by the Chinese company, Tencent. WeChat sees most of its users from their home market in China and has a total number of 1,225 million users worldwide. As previously mentioned, Facebook is banned in China, and the government had also censored WhatsApp in 2017 from all citizens. This is a major loss for Meta considering the market size of China.



What's Next

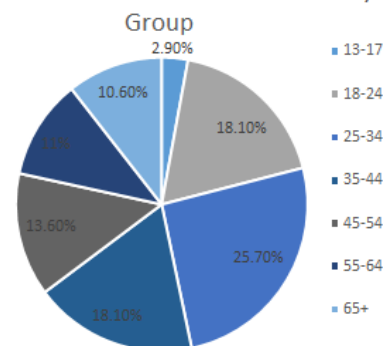
Ultimately, the ideal market for Meta and WhatsApp specifically to join would be China. This is because of the large market size and the growth of competitor WeChat. Since WeChat isn't popular among other markets, it is clear that WhatsApp would allow individuals in China to communicate with citizens in other countries, again, at no charge. Given the political barriers to this particular entry, Meta should prioritize their strategy elsewhere, aside from geographic expansion.

Entrepreneurial Opportunity

Lack of Digital Trust

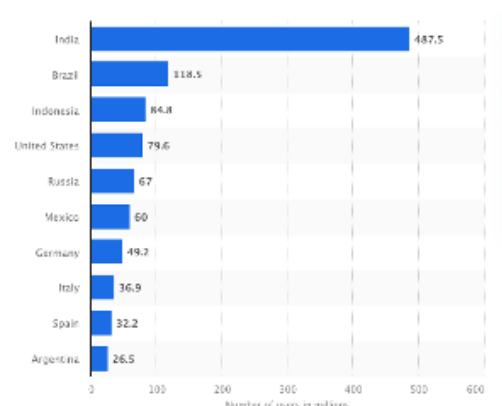
As of 2021, Facebook, the website itself, is in first place on the leading social media websites in the United States, followed closely by Pinterest, Twitter, and Instagram. Facebook has continuously held this position for many years, however, there is strong speculation that Facebook's audience in numbers is taking a turn for the worse. Over time, there has begun to be a slight decrease in Facebook users due to increased distrust, constant discord on the site, and general disinterest by the public. The largest age group to use the Facebook platform are between the ages of 25 to 34, followed closely by the 35-44 and 55-64 age ranges. This could be a major signal of the Facebook fade that has recently been attributed to the lack of trust the general public holds in Mark Zuckerberg, and the company.

Distribution of Facebook Users in the U.S. by Age



Although the Facebook app is not inherently private, it does provide privacy settings to control how content is shared with other users. Most of the information collected by Facebook is information included on user profiles, in posts, and in comments. They analyze likes and the amount of time someone spends on one post. The analytics team also used biometrics to collect data from user photos and used it to recognize individuals. In February of 2021, a federal judge approved a \$650 million settlement of a privacy lawsuit against Facebook for allegedly violating privacy laws in Illinois by failing to get consent before using photo face-tagging and biometric data to store faces digitally.

As Facebook, now Meta, has grown successfully financially and operationally, they have simultaneously decreased the amount of trust the public has in them. When it comes to protecting personal information, social network users in the U.S. give Facebook the lowest rating. In their 2019 earnings call and discussion about Facebook's plan for the next five years, Zuckerberg admitted to the listeners his disregard for ensuring trust. He claimed to be motivated to focus on communication with his audience and customers, but without an explanation as to how. Has the 'how' to this statement been put into place since the beginning of 2020? Perhaps. Zuckerberg claimed, "my goal for this next year isn't to be liked, but to be understood." The public is



excited and Meta, but negative speculations are already beginning to brew. Establishing customer trust and clear communication between users could be important as ever.

Opportunity in Technology

Similar to Facebook, Meta has raised similar privacy concerns. Mark Zuckerberg and Meta's core competency is in the technology space, with the capabilities to recognize trends before they take off and capitalize on their development. Since 2020, Facebook has taken efforts to establish digital trust combined with significant steps in their journey to gaining momentum behind the Metaverse. Their global presence in WhatsApp and other technologies keeps global customers aware of the large market capitalization that Meta has. A prestigious senior lecturer in digital cultures at the University of Sydney voiced his concerns about data privacy in Facebook's metaverse claiming "Facebook's VR push is about data, not gaming." Data professionals are well aware that virtual reality and augmented reality are the most data-extractive sensors that people will be placing in their home within the next decade or so. Analysts and speculators have made it clear that without public digital trust, Meta will not advance in the way that Zuckerberg desires.

Competing Through Innovation

Innovation involves the application of inventions to solve different problems in a useful way, Facebook's problem: digital trust. However, this is much easier to say than to do. Facebook has been a leader in the social media industry for nearly fifteen years and has begun the horizontal integration process of bringing its core competencies into new markets through its digital wallet development, the announcement of Meta, and a multitude of different business segments. Meta has the ability to rapidly iterate and add new features. To focus on the product-innovation side, Meta has provided the public with their future plans to compete in the already established virtual reality markets against Microsoft, Unity, and Apple by acquiring Oculus in 2014 for \$2.3 billion. Meta is already planning on developing the VR and AR technology to launch its own virtual universe, thus displaying innovation that differentiates itself from competitors.

As previously mentioned, for this to successfully launch, what can Meta do to fully gain a sustainable digital trust of the public? To begin operating with transparency and communication with users, Meta can begin establishing trust where its company took flight and is currently struggling the most; Facebook. Using their knowledge and ability to predict what's next for markets, Facebook can redevelop trust with consumers, potentially incentivizing China to take back its decision to ban them. There have been studies and articles discussing the idea of financial incentives for social media companies to put in place. Research institutions have introduced the idea of financially compensating consumers for data that they provide to technology and media companies. For example, when users' data is extracted and utilized by the Meta research team, the users would earn a dividend based on the profit Facebook makes with their data. On the other hand, the idea of offering media users the option to pay out of their data being used by Facebook. For example, in data and privacy settings, a user could pay a small fee that would ensure their data is not used or tracked. This type of financial innovation could give

Facebook a leg up by allowing them to establish transparency and consent from users to use their data.

Formulation Details

Facebook faces the majority of its issues surrounding the lack of user privacy and overall mistrust of its platform. This has been an issue since their introduction to the public in 2006, and they have even faced numerous lawsuits because of it. One specific lawsuit mentioned above cost Facebook \$650 million for allegedly violating privacy laws in Illinois by failing to get consent before using photo face-tagging and biometric data to store faces digitally. These privacy issues are limiting growth in the US and Facebook's expansion into countries like China, Iran, and North Korea who have high censorship. This is hindering growth for all of Meta's companies namely Facebook and WhatsApp who would likely see large user potential in this area.

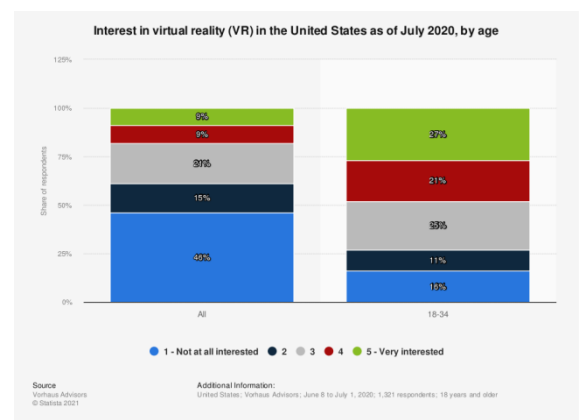
Beyond privacy issues, Facebook hopes to expand into the virtual and augmented reality segment with their purchase of the company Oculus which creates an immersive experience for the user using a headset and "Haptic Glove." Expanding into this market will create differentiation for Facebook over its competitors like Twitter and LinkedIn.

In order to fix its issues with privacy, starting in the US, Facebook needs to be far more open with its consumers. As mentioned above, Zuckerberg has stated that he has no intention to ensure trust in his users - so if he doesn't intend to change the way that Facebook treats data, he at least needs to be more open about it. This could entail releasing a new privacy policy message to all users when they next open the app and even offering a paid version of the platform for users who wish to opt out of data collection.

Apple made a similar unpaid move with a recent update where they ask users if they want to allow each app to use its data. Information from a survey done by PCMagazine gauging users' willingness to pay for social media to avoid ads could be used to support the fact that most users would likely not opt into paying for its data to remain completely private. Results from that survey can be seen below.



Facebook needs to take far greater steps though in order to be accepted and see growth in countries like China. China's Great Firewall censors all information posted within its country and forbids several foreign, often US companies from entering its technological market. Facebook should partner with technology companies native to the country that they wish to expand into but are having issues due to regulations and have these companies aid them in abiding by these laws and increasing trust in Facebook in these countries. In China, this would entail partnering with companies like ByteDance or



Tencent. A partnership like this one is something that was previously discussed when there were privacy issues with TikTok in the US. Although this is a step that would limit Facebook's power in these countries, it is a step that may be necessary if they wish to expand further. As mentioned above, Facebook could also offer dividends to users if their data is used to make a profit for Facebook in some way and they will get a set percentage of that profit.

Finally, Facebook is moving forward in attacking the AR and VR market with Oculus as its supporter. The Metaverse is a completely virtual world where Meta hopes that its users will interact with each other as if they are in the real world. It seems that this step is geared at a younger audience and carrying the business in the future.

From this information, we can see that generally, those in the 18-34 age range are more interested in AR and VR than those overall. This proves that Facebook is targeting a younger demographic than its current top users whose ages fall between 25 to 34, followed closely by the 35-44 and 55-64 age ranges. Meta's Haptic Gloves have also made major developments lately releasing demo videos showing users shaking hands and playing games like Jenga in the virtual world - these demos are obviously being used to increase interest in the product. In order to reach this target market more effectively, Facebook should use gaming and other influencers as product testers and pay these users to review the product for their audiences. Influencers hold major power over the younger demographics and will likely influence the use of Facebook's VR/AR products and the Metaverse.

Strategic Recommendations

Recommendations

The recommendations that are being provided to Meta are all different in their own rights and would aim to improve Meta in different aspects of the organization. The first recommendation is to pursue investing, researching, and developing the future technology that is bound to follow current technologies such as Oculus.

The second recommendation that was given to the company was to begin paying users for allowing them to have their data used for large dataset sales that generates large cash flows. By rewarding their users for using their platform, even though they would initially see lower cash flows, would incentivize new users to the platform, encourage more use of their service with existing customers, break down barriers of previously not-well known business model, and possibly force other platforms to follow suit or simply fall in popularity.

The third recommendation that was given to Meta was the idea of offering the ability for users to pay a fee that would allow their accounts to be blocked from all data collection services. This would allow for the platforms to not see significant drops in cash flows for users opting out and will be more appealing to users who wish to have more privacy with their information.

Finally, the last recommendation that was given to Meta was to expand into different locations around the globe with the idea of developing partnerships with existing native companies that are already adhering and functioning within the country's laws.

Estimates

The financial repercussions that come along with each strategic proposal provided to Meta are very different based on the recommendation. For possible estimates that involve the growth into the virtual reality market, Facebook claims they intend to spend around \$10 billion dollars by the end of 2021. Based on this knowledge, it would not be surprising for Meta to be investing over \$100 million dollars over the next decade. This would only be a small amount compared to the possibility of the size of the future markets that VR and AR will hold.

As for the data security segment of the recommendations, the price of one person's data can vary significantly from a few cents to a hundred dollars. With this type of implementation, there would have to be some variable factors that would play a role when it comes to paying out the users. However, this would ideally not impact their overall cash flows and rather be a benefit to thank its users. When thinking of a system to help users avoid having their data collected, it can be worked in a similar but opposite fashion to paying its users. Instead of having to pay the users, Meta could create a system that would charge the individual the average amount that one individual's data would cost. This would allow Meta to still make money off those not having their data collected and the user would pay a small amount that covers the loss in profits in exchange for complete account privacy.

Possible Responses & Risks

Some of the responses that Meta should be expecting from their competitors and consumers based on these recommendations are very hard to predict because of how inherently innovative their future is going to be. Meta is currently one of the leading platforms when it comes to VR & AR technology and can see a multitude of responses from all other companies having to use Meta's technologies to exist in the new Metaverse. This would just be establishing Meta as the new virtual environment almost like what we think of the open internet today. The risks involved are also very hard to predict since as this area grows and newer technologies are developed then rival companies will begin to appear to create their own version of a metaverse, almost creating multiple different universes where people can interact rather than basic social platforms on the internet.

When looking at the privacy and data collection recommendations, some of the responses may not be well taken by the public since it is public information that these social networks sell their users' data. However, it is well known that many users are not informed or simply do not care enough to investigate how their data is being used. Some risks that come from paying their users for collecting their data is if the percentage of their revenue is not significant enough to draw any appeal from users and would just lower their revenue and let other social platforms pull ahead in popularity.

When thinking of asking users to pay to avoid having their data be collected will also bring similar responses and risks. Having users pay to avoid their data being used will bring more attention to how social networks are using user data and can bring in a lot of negative attention. Having users pay to avoid their data being collected will bring in a lot of risks since other platforms would be able to simply avoid needing this feature or find better alternatives that could potentially make this change rendered useless.

Implementation, “Rollout Plan”

Structural Changes

Geographic

In order to geographically expand, Meta can focus efforts on mending their relationship with China in order to successfully implement within one of the largest markets and by emphasizing geographic growth of their child products (WhatsApp specifically). As previously mentioned, China currently prohibits citizens from access to Facebook through censorship, barring Facebook from expanding into a market of over 1.4 Billion consumers. After analyzing all options to successfully expand into this market, the only option is to form a partnership with a Chinese native company, either ByteDance or Tencent. Forming these partnerships can aid Meta by allowing them to adhere to local laws and successfully transition the platform into the market.

Another option to increase the global presence of Meta is by increasing global exposure to the company’s smaller products. Initially, Meta can place heavy promotion and expansion on WhatsApp. As stated earlier, WhatsApp is extremely popular throughout the globe, with the most users present in India and Brazil. Aside from this, the number of WhatsApp users throughout the United States is significantly lower than other countries despite the large market size for various other Meta platforms (Facebook, Instagram, etc.). In order to create a larger global presence of Meta, they can focus on geographically expanding WhatsApp throughout North America. To do so, Meta can begin by creating more emphasis of growth and promotion on WhatsApp versus Facebook messenger. Considering the presence of WhatsApp is strong in countries throughout Asia and Europe, in order to keep user rates consistent throughout the country, Meta can place priority on expanding WhatsApp in the United States, where users of Facebook messenger are significantly higher.

Privacy Concerns

As expressed above in the entrepreneurial opportunities section, consumers do not express trust with Meta or its platforms due to ongoing privacy concerns. With the rebrand from Facebook to Meta, the organization can use this as an opportunity to regain consumer digital trust. With the idea of innovating an option for users to “pay for privacy” there are certain structural adjustments Meta needs to take. Initially, Meta will need to conduct research via their social media platforms to understand how many users are interested in this feature and at what price they are willing to pay. Meta will also need to develop a well thought out action plan, that empathizes with consumers, expressing that this rebranding is for the consumer – specifically standing with their privacy and safety concerns.

Ultimately, with innovating to create structural change, Meta will need to regain and sustain consumer trust and pair it alongside this new feature. By creating an action plan stating the why behind this new feature (to abide by consumers' needs) Meta can start the transition to regaining consumer trust which will in the end aid any desires to expand the company.

Cultural Changes

The current general workplace culture at the Facebook corporate offices is known as relatively relaxed, with an underlying competitive feel in the atmosphere. Facebook has been

known to take their corporate culture very seriously. The layout of the Facebook office is an open space that encourages a frictionless working environment. There is not a cubicle in sight. Socializing and cross-functional collaboration is highly encouraged. So, what role can the culture of Facebook play in trust establishment? If transparency and conversation among coworkers is already encouraged, why does the company struggle with trust in the first place? Although we do not have a precise answer to this question, we believe a contributing factor to the change could be in the employees beliefs, values, and attitudes.

As Facebook continues to attract some of the most creative and brightest workers, they must continue to invest in their employees' well-being and best interest. As a large company that was once just a small group of college-dropouts, they are well-aware that they must stay ahead of the curve. Connecting to the world takes people of different backgrounds as well. In a recent update on July 15th, Maxine Williams, Chief Diversity Officer at Meta, touches upon efforts made to diversify the types of backgrounds employees are from. The general human population has a tendency to trust people who have similar interests and cultures, therefore diversifying employees will reach a broader range of consumers to establish trust. Connecting to the world takes people with different backgrounds and points of view to build products that work better for everyone, so building a workforce that reflects the diversity, will have a positive outcome. With our research and recommendations to work on re-establishing digital trust in consumers for its social media platforms, the employees at Facebook should have a good understanding of this goal and have values that align with these goals.

As mentioned throughout several sections of this paper, Facebook has major goals of moving into the AR/VR world and utilizing their newly purchased company Oculus's technology. In order to achieve these goals, Facebook will need to make Oculus headsets more widely used and priced at only around \$300, it is clear that they may need to lower the price on this technology or create a strategically targeted marketing plan in order to attack the market like they wish to. The Metaverse will also have to be actually created and portions created for companies and users as well. There are some concepts of this technology seen in games like Fortnite and Minecraft but the actual Metaverse has yet to be created. (Molina, 2021)

Another recommendation for Facebook was to offer dividends to users if their information is used by Facebook to make some sort of profit for themselves. In order to move forward with this new business venture, they would need to create some sort of software that allows them to track exactly what is being done with customers information and possibly also allow this information to be seen by customers so that they know when their information is really being used. Also with the amount of information that Facebook has a reputation of using, they will need to plan out exactly how much is being dealt to customers for their information and decide on a way to effectively distribute dividends to that many people.

Prior to enacting the ability of Facebook users to pay for their information to be kept private, Facebook would need to rework the information collection systems in order to be able to selectively collect information. Facebook will also need to create some sort of payment format to collect funds from users if they decide to opt out via payment method since Facebook is usually a free platform. Then, create messaging to be sent out to all users providing them with the opportunity to opt out of data collection and move forward with only collecting information who have decided not to pay and agreed that it is okay for their information to be saved.

The final recommendation for Facebook was to expand globally through foreign partnerships, like Facebook teaming up with ByteDance in China. In order to move forward with this goal, Facebook must find a way to implement very strict censorship on the platform since the issue they've always had is with their lack thereof. Chinese censorship restricts users from saying anything critical of their government or anything that they agree with in general. With this, users would have to provide information to Facebook or the government that would make it so their identities are not private, because if anyone was saying any of these things, the government would need to know who they were. A display of this successfully working in possibly another country would also probably be necessary.

Conclusion

As Meta continues to grow and diversify its business through its new "Metaverse," Facebook as a social platform has the ability to remain one of the most-used platforms on a global scale. Through the development of technology and targeting of younger demographics, Facebook will last in the future. Based on Facebook's current market position and evaluation of competitors, our strategic recommendations including continuing to pursue the development and implementation of artificial intelligence and virtual reality, users earning dividends, global expansion, and paying users for data, set Facebook up for future growth opportunities.

To bring these recommendations to life, Meta must consider their exact target audience for their higher-priced items like Oculus, and develop software to understand the price of an individual person's data is and how much the dividends they are offering would be worth. They will also need a legal consult to develop the contract that users would need to agree to in order to be paid for their data, as well as determine the format in which they will be distributing payments. Lastly, Facebook will likely need to work closely with the government of countries such as China if they wish to expand to where their platform is not currently present.

References

- Airnow. (May 3, 2021). Countries with the highest growth of WhatsApp downloads from the Apple App Store as of 1st quarter 2021 [Graph]. In Statista. Retrieved December 13, 2021, from <https://www.statista.com/statistics/307143/growth-of-whatsapp-usage-worldwide/>
- Airnow. (May 3, 2021). Number of WhatsApp downloads from the Apple App Store worldwide in 1st quarter 2021, by country (in millions) [Graph]. In Statista. Retrieved December 13, 2021, from <https://www.statista.com/statistics/258675/whatsapp-messenger-reach-among-iphone-users-in-selected-countries/>
- Airnow. (May 3, 2021). Regions with the highest growth of WhatsApp downloads from the Google Play Store as of 1st quarter 2021 [Graph]. In Statista. Retrieved December 13, 2021, from <https://www.statista.com/statistics/289419/whatsapp-android-downloads-country-growth/>
- Awa-abuon, John, and John Awa-abuon (87 Articles Published). “3 Countries Where You Can't Use Facebook.” *MUO*, 25 July 2021, <https://www.makeuseof.com/countries-that-ban-facebook/>
- BCG. (February 18, 2021). Augmented (AR), virtual reality (VR), and mixed reality (MR) market size worldwide from 2021 to 2024 (in billion U.S. dollars) [Graph]. In Statista. Retrieved November 19, 2021, from <https://www-statista-com.unh.idm.oclc.org/statistics/591181/global-augmented-virtual-reality-market-size/>
- Bloomberg.com*, Bloomberg, <https://www.bloomberg.com/>.
- Brand Finance. (January 25, 2021). Most valuable brands worldwide in 2021 (in billion U.S. dollars) [Graph]. In Statista. Retrieved November 19, 2021, from <https://www-statista-com.unh.idm.oclc.org/statistics/264875/brand-value-of-the-25-most-valuable-brands/>
- Business of Apps. (January 28, 2021). Share of consumers from Germany, the United Kingdom, and the United States interacting with influencers on selected social media platforms as of August 2020 [Graph]. In *Statista*. Retrieved November 19, 2021, from <https://www-statista-com.unh.idm.oclc.org/statistics/1202588/consumers-interact-influencers-platforms/>
- Cohen, Jason. “How Much Would You Pay to Make Social Media Ad-Free?” *PCMag*, PCMag, 3 Sept. 2021, <https://www.pcmag.com/news/how-much-would-you-pay-to-make-social-media-ad-free>.
- Dybek, Martin. “Facebook Inc. (Nasdaq:FB): Property, Plant and Equipment.” *Stock Analysis on Net*, Stock Analysis on Net, 29 Jan. 2021, <https://www.stock-analysis-on.net/NASDAQ/Company/Facebook-Inc/Analysis/Property-Plant-and-Equipment>.
- eMarketer. (January 14, 2020). Number of Pinterest users in the United States from 2017 to 2022 (in millions) [Graph]. In Statista. Retrieved October 22, 2021, from <https://www-statista-com.unh.idm.oclc.org/statistics/408974/number-of-us-pinterest-users/>
- eMarketer. (August 2, 2021). Number of Snapchat users in the United States from 2018 to 2023 (in millions) [Graph]. In *Statista*. Retrieved October 22, 2021, from <https://www-statista-com.unh.idm.oclc.org/statistics/558227/number-of-snapchat-users-usa/>
- eMarketer. (October 13, 2020). Number of TikTok users in the United States from 2019 to 2024 (in millions) [Graph]. In Statista. Retrieved October 22, 2021, from <https://www-statista-com.unh.idm.oclc.org/statistics/1100836/number-of-us-tiktok-users/>

eMarketer. (October 26, 2021). Number of WhatsApp users in selected countries worldwide as of June 2021 (in millions) [Graph]. In Statista. Retrieved December 13, 2021, from <https://www.statista.com/statistics/289778/countries-with-the-most-facebook-users/>

“Facebook Patents Granted, Facebook Us Patents Granted, Search Facebook Patents - Justia Patents Search.” *Justia*, <https://patents.justia.com/company/facebook?list=patents>.

Federal Trade Commission. (2019, July 24). FTC imposes \$5 billion penalty and sweeping new privacy restrictions on Facebook. Federal Trade Commission. Retrieved December 13, 2021, from <https://www.ftc.gov/news-events/press-releases/2019/07/ftc-imposes-5-billion-penalty-sweeping-new-privacy-restrictions>.

Hsu, T. (2021, September 28). *Tiktok wants more ad dollars, and it has a new plan to get them*. The New York Times. Retrieved October 22, 2021, from <https://www.nytimes.com/2021/09/28/business/media/tiktok-advertising.html>.

Ignite Social Media. (February 20, 2020). Social network advertising revenue in the United States in 2019, by company (in billion U.S. dollars) [Graph]. In Statista. Retrieved October 22, 2021, from <https://www-statista-com.unh.idm.oclc.org/statistics/1103339/social-media-ad-revenue-platform/>

Intelligence, Insider. “Facebook Ranks Last in Digital Trust among Consumers.” *Business Insider*, Business Insider, 24 Sept. 2020, <https://www.businessinsider.com/facebook-is-consumers-least-trusted-social-media-platform-2020-9>.

Kan, M. (2021, October 25). Facebook to spend \$10 billion on VR Business. PCMag. Retrieved December 14, 2021, from <https://www.pcmag.com/news/facebook-to-spend-10-billion-on-vr-business>.

Lengen, S. (2019, July 11). How much is your data worth to tech companies? lawmakers want to tell you, but it's not that easy to calculate. The Conversation. Retrieved December 13, 2021, from <https://theconversation.com/how-much-is-your-data-worth-to-tech-companies-lawmakers-want-to-tell-you-but-its-not-that-easy-to-calculate-119716>.

Marketing Land, & eMarketer. (January 13, 2020). Number of LinkedIn users in the United States from 2018 to 2022 (in millions) [Graph]. In Statista. Retrieved October 22, 2021, from <https://www-statista-com.unh.idm.oclc.org/statistics/194471/number-of-linkedin-users-usa/>

McGregor, G., & Barrett, E. (2021, October 7). Facebook whistleblower undercuts Zuckerberg's China Defense Against breaking up big tech. Fortune. Retrieved December 13, 2021, from <https://fortune.com/2021/10/07/facebook-whistleblower-undercuts-zuckerbergs-china-defense-against-breaking-up-big-tech/>.

Molina, M. U. S. A. B. T. (2021, November 15). Everyone wants to own the metaverse including Facebook and Microsoft. But what exactly is it? USA TODAY. Retrieved December 14, 2021, from <https://eu.usatoday.com/story/tech/2021/11/10/metaverse-what-is-it-explained-facebook-microsoft-meta-vr/6337635001/>

Published by Statista Research Department, and Feb 5. “Facebook: Revenue and Net Income.” *Statista*, 5 Feb. 2021, <https://www.statista.com/statistics/277229/facebooks-annual-revenue-and-net-income/>.

Published by Statista Research Department, and Jan 27. “Number of U.S. Patents Registered by Facebook 2019.” *Statista*, 27 Jan. 2021, <https://www.statista.com/statistics/897785/facebook-patents-usa-registered/&sa=D&source=docs&ust=1634847804337000&usg=AOvVaw13QIUPGnIaMyeTcwg7vGHY>.

- Published by Statista Research Department, and Sep 10. "Facebook Mau Worldwide 2021." *Statista*, 10 Sept. 2021, <https://www.statista.com/statistics/264810/number-of-monthly-active-facebook-users-worldwide/>.
- Published by Statista Research Department, and Sep 10. "Most Used Social Media 2021." *Statista*, 10 Sept. 2021, <https://www.statista.com/statistics/272014/global-social-networks-ranked-by-number-of-users/>.
- Published by Statista Research Department, & 10, S. (2021, September 10). *Most used social media 2021*. Statista. Retrieved October 21, 2021, from <https://www.statista.com/statistics/272014/global-social-networks-ranked-by-number-of-users/>
- Reiff, Nathan. "5 Companies Owned by Facebook (Meta)." *Investopedia*, Investopedia, 3 Nov. 2021, <https://www.investopedia.com/articles/personal-finance/051815/top-11-companies-owned-facebook.asp>.
- Statista Research Department, & 5, F. (2021, February 5). *Facebook: Revenue and net income*. Statista. Retrieved October 21, 2021, from <https://www.statista.com/statistics/277229/facebooks-annual-revenue-and-net-income/>
- Published by Statista Research Department, and Oct 1. "Quarterly Growth of Whatsapp Android Downloads by Region 2021." *Statista*, 1 Oct. 2021, Statista. (May 25, 2021). Forecast of the number of Twitter users in the United States from 2017 to 2025 (in millions) [Graph]. In *Statista*. Retrieved October 22, 2021, from <https://www-statista-com.unh.idm.oclc.org/forecasts/1146561/twitter-users-in-the-united-states>
- "Understanding Facebook's Business Model." *About Facebook*, 22 June 2020, <https://about.fb.com/news/2019/01/understanding-facebooks-business-model/>.
- Vanian, Jonathan. "Mark Zuckerberg's Metaverse May Be as Privacy Flawed as Facebook." *Fortune*, Fortune, 29 Oct. 2021, <https://fortune.com/2021/10/29/mark-zuckerberg-metaverse-privacy-facebook-meta/>.
- Vorhaus Advisors. (July 11, 2020). Interest in virtual reality (VR) in the United States as of July 2020, by age [Graph]. In Statista. Retrieved November 19, 2021, from <https://www-statista-com.unh.idm.oclc.org/statistics/456810/virtual-reality-interest-in-the-united-states/>
- Vorhaus Advisors. (July 11, 2020). Interest in augmented reality (AR) in the United States as of July 2020, by age [Graph]. In Statista. Retrieved November 19, 2021, from <https://www-statista-com.unh.idm.oclc.org/statistics/1200827/augmented-reality-interest-in-the-united-states/>
- We Are Social, & DataReportal, & Hootsuite. (January 27, 2021). Global digital population as of January 2021 (in billions) [Graph]. In Statista. Retrieved December 13, 2021, from <https://www.statista.com/statistics/617136/digital-population-worldwide/>