What does the future look like for Meta?
A scenario study based on the conflict between Meta and Apple

CAMILA IGNACIA STÄLLBORN
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AN ANALYSIS OF THE CONFLICT BETWEEN META AND APPLE: What does the future looks like for meta?

CAMILA IGNACIA BALCAZAR LAGUES

This thesis project analyses the conflict between Meta and Apple, specifically focusing on their privacy policies and the subsequent implications for their business models and innovation strategies. This study aims to provide valuable insights into the main topics of speculation surrounding this conflict and address its objectives. By analyzing secondary sources, the project identifies the main themes discussed in relation to the conflict. Privacy, business, advertisement, and data emerged as the most frequently mentioned and speculated topics. Based on the effects of Apple's privacy policy changes, this project developed three plausible scenarios for Meta's future. These scenarios explored the impact of the climate crisis, the influence of Generation Z, and advancements in AI technology. Each scenario presented unique challenges and opportunities for Meta, emphasizing the importance of business model elements and innovation theory in navigating changing market conditions and consumer preferences. This project provides insights into the conflict between Meta and Apple, shedding light on the main topics of speculation and their implications for business models and innovation. Contributing with this to the discussion about privacy, business models, and innovation in the tech industry.

SAMMANFATTNING


CCS Concepts: • Applied computing → Operations research; Forecasting; • General and reference → Document types; Reference works

Keywords: Business model, Business model innovation, Scenario planning, Data, Privacy, Tech Industry.

How does the future looks like for Meta?

1. INTRODUCTION
This section of the report serves as an introduction to this project. It addresses the problem definition, purpose, and limitations of the current thesis project.

1.1 BACKGROUND
Klaus Schwab, founder of the World Economic Forum claims that we are currently undergoing the fourth industrial revolution, which “is blurring the lines between the physical, digital, and biological spheres”[1,2]. Technological innovation continues to accelerate all aspects of our lives and the world surrounding us. This era has been characterized by the massification of the internet and the digital transformation processes. Thanks to the Internet, data creation, and analysis of this data, completely new opportunities continue to open up for new products and services to be introduced daily.

The Industry has evolved into an “ecosystem” that intertwined all of the actors involved in it. Cooperation and competition are sometimes indirect but in some cases require companies to innovate to maintain their positions in the market. Particularly relevant for this project are “The big 5” which are Alphabet, Amazon, Apple, Microsoft, and Meta, which is the parent company of Facebook, Instagram, and WhatsApp, among others. Billions use their products and data collection and usage have characterized their product innovation, leading them to be the dominant players in Tech. Particularly, this project will focus on one of these big companies: Meta.

Meta’s primary source of revenue is advertising. Specifically, the company generates the majority of its advertising revenue by delivering personalized ads to its users based on their interests and behaviors. While Alphabet’s business model would be the closest complementor[3] (both competitor and complement) to Meta’s, these companies seem to collaborate and coexist in the ecosystem. On the other hand, Apple’s business model is primarily based on hardware, with the main income attributed to profits from the iPhone. This is the point where Meta and Apple overlap and it serves as the origin of the conflict analyzed in this project.

Meta’s products primarily consist of apps that require a device to run, and the main operating systems are iOS, which belongs to Apple, and Android, part of Alphabet. In May of 2022, Apple released a new feature for iOS 14, known as App Tracking Transparency, which disrupted the equilibrium in the Tech ecosystem. This move restricted Meta’s capacity to track by revoking access to the identifier for advertisers (IDFA)—a unique code that shows when people are seeing an ad on Facebook[4]. It is also important to note that Google has a search deal with Apple, which causes that this company is not as heavily impacted as Meta by these changes.

The changes introduced by Apple's privacy policy caused a “conflict” between this company and Meta over user data protection and privacy. Apple’s iOS 14 update required app developers, including Meta, to seek explicit user permission before tracking their data. As of January 2023, Statista reports that the iOS users in North America are 54.74%[5]. Based on this number and that a statistic shows that 62% of iPhone users are opting out of sharing their information we can say that users have the power to impact Meta [6,7] heavily. For the company, it could result in less accurate targeting of ads and consequently a decrease in revenue.

Meta has spoken out against this change, claiming that it will hurt small businesses and limit their ability to deliver personalized ads [8]. Even more, they have also argued that the new policy will result in a less enjoyable user experience, and potentially cause users to spend less time on the platform. On the other hand, Apple argues that the changes are necessary to give users more control over their personal information and protect their privacy.

![Fig. 1: Primary revenue stream of the "big 5" companies derived from their business models by Lotame](image-url)
In this sense, this project refers to this situation as a "conflict" as defined by the Cambridge dictionary: "An active disagreement, as between opposing opinions or needs". Particularly this conflict is categorized as a type of "governance failure", it often involves conflicts among ecosystem partners, such as Apple and Meta. Signs of an emerging conflict are, among others, "complaints from complementors about the orchestrator exploiting its dominant position and imposing unfair terms and conditions on the ecosystem"[9]. Meta’s above statements are clear complaints regarding this situation which backs up the theory of this being an emerging conflict between these two companies.

The Tech ecosystem, much like the current situation with Meta, has encountered similar conflicts in the past, involving prominent players like Amazon, Apple, and Alphabet. These conflicts have been under public and political scrutiny for several years now [10]. This specific conflict has sparked discussions about data privacy, shedding light on how companies collect and utilize personal information. This ties into other criticisms these companies face, such as concerns about corporate surveillance, monopoly, and market power. Additionally, this conflict is prompting users of social media to become more conscious of the data they share and the companies they engage with, potentially leading to changes in behavior and the adoption of new privacy-focused platforms.

Moreover, Meta has been notably entangled in some of the most significant scandals within the Tech ecosystem, including its role in the outcome of the 2016 US presidential elections and the 2018 revelations involving Cambridge Analytica. Furthermore, scholars like Professor and author Shoshana Zuboff have critiqued and questioned Meta’s business model. In her book, Zuboff introduces the concept of surveillance capitalism, depicting it as a novel economic system that derives revenue from the exploitation of personal data. She contends that this business model poses a threat to human freedom and advocates for enhanced regulation and societal safeguards against such practices [11].

Zuboff draws attention to the fact that the tech industry considers human experience as a raw material for translating into behavioral data. While some of this data might be used for product enhancement, she asserts that the rest is treated as a proprietary behavioral surplus. This surplus is fed into advanced manufacturing processes termed “machine intelligence,” resulting in prediction products that anticipate users’ present, imminent, and future actions. Zuboff notes the emergence of “behavioral futures markets,” where predictions about user behavior and products are traded. These markets have shifted from mere prediction to actively shaping user behavior, granting companies not just knowledge but considerable power [12].

This exertion of power can be understood as Instrumentarian power, functioning through an extensively pervasive computational architecture of interconnected “smart” devices, objects, and spaces. This power works to manipulate human behavior in pursuit of predefined objectives, akin to how armaments and armies traditionally exert influence [12].

In conclusion, The Tech ecosystem has constantly been having similar conflicts to the one this project explores, involving companies like Meta, Alphabet, Apple and Amazon. This highlights the need for a change in the data privacy regulations and a better understanding of to which extent can personal information can be used to profit. Through the perspective of future scenarios, this projects aims to critically examine how the future might look for the Tech ecosystem and the implications of surveillance capitalism on individual freedom and advocate for a more regulated and ethically conscious technological future. As the relationship between technology, data, and power continues to change, society finds itself at a crossroads. It is urgent that we define the trajectory of digital innovation, ethical responsibility, and the preservation of fundamental human rights when imagining the future.
1. 2 RESEARCH QUESTIONS
The conflict between Apple and Meta over data privacy is leading to increased scrutiny of these companies, as well as calls for more robust privacy regulations. In terms of the advertising industry, the conflict is forcing advertisers to rethink their approach to data collection and privacy. The increased focus on privacy could lead to a shift away from targeted advertising and toward more contextual or audience-based advertising.

Finally, the conflict is setting a precedent for other technology companies and app developers, as they navigate the changing landscape of privacy and data protection. The outcome of the conflict between Apple and Meta could have far-reaching implications for the social media industry and beyond.

Therefore, the research questions for this thesis are:
1. What are the main themes of speculation coming from secondary sources about the conflict between Meta and Apple?
2. What plausible scenarios can Meta explore based on the effects of Apple’s privacy policy changes analyzed in the project?
3. How do the scenarios examined in the project align with Meta’s business model components and the theory of business model innovation?

1. 3 PURPOSE AND OBJECTIVES
The disagreement between these two companies has sparked a debate over the balance between personalized advertising and user privacy. Therefore, this in-depth case study can be of interest to entrepreneurs and members of academia to elaborate and use as an example of changes in business models and innovation strategies focusing on the recent changes implemented by Apple and how this latest impact Meta and the whole ecosystem. The project’s main objective is to analyze what is being speculated about the impact of these data privacy changes from Apple, particularly focusing on the consequences for Meta. Secondarily this project aims to use scenario analysis to propose different options for how this conflict can be resolved and highlight the differences between one scenario from another one.

1. 4 DELIMITATIONS
The objective of this study is to investigate the impact of modifications carried out by a single organization on the broader social media landscape, with a specific emphasis on the Meta vs. Apple case as an illustration of the hypothesis. This research looks to provide an understanding of the potential future outcomes and approaches while refraining from advocating for any specific solution or mentioning all the participants in the ecosystem. Instead, the emphasis is on demonstrating the potential consequences of different future scenarios, which can serve as an indicator for the overall ecosystem given the considerable market share of these companies.

1. 5 ETHICS & SUSTAINABILITY
The project does not focus particularly on sustainability or ethical concerns. Regardless of this, the project will follow the GDPR if needed, and it will aim to be conducted sustainably by being mostly conducted by digital channels and responsibly storing data.

2. CONTEXT OF THE CONFLICT
The present section expounds on the primary concepts that are relevant to the thesis project. Furthermore, it provides a depiction of the current state of the social media landscape, with a particular emphasis on the stance of Meta and Apple as of May 2023.
2.1 ECOSYSTEM OF SOCIAL MEDIA

To understand this project it is important to clarify what social media is. The scholarship is divided into several streams when it comes to this matter. Some might define what can be “considered” as social media, but this, therefore, does not clarify or “define” it. So, to clarify how we will further understand social media some definitions have been collected.

Generally, social media can be defined as digital technologies emphasizing user-generated content or interaction. According to Russo, Watkins, Kelly, and Chan [13] social media “facilitates online communication, networking and/or collaboration”. Lewis [14] has a simpler definition “label for digital technologies that allow people to connect, interact, produce and share content”. And more recently [15] has been defined as:

“Social media are Internet-based channels that allow to opportunistically interact and selectively self-present, either in real-time or asynchronously, with both broad and narrow audiences who derive value from user-generated content and the perception of interaction with others.”

Therefore the ecosystem of social media is vast, growing daily with new competitors and entrants every day. These channels are accessible from different devices, such as phones, and computers, almost universally. In 2023, on average smartphone user spends 70 hours on social media monthly, and around 5.27 billion people have social media accounts[16].

The first social media was called LiveJournal, launched in 1999, followed by MySpace, Meta, Orkut, and Bebo introduced to the market between 2003 and 2005. The 2000s were years of growth for the ecosystem, introducing more and more channels and tools to the market. Another key player in this project as well is Apple. This company became a dominant player leading to the creation of apps like Instagram, Vine, and Snapchat, whose competitive advantage was the mobile accessibility through their App Store [16].

The Industry has evolved into “ecosystems” that intertwined all of the actors involved in it. Cooperation and competition are sometimes indirect but in some cases require companies to innovate to maintain their positions in the market. Particularly relevant for this project are “The big 5” which are Google, Amazon, Apple, Microsoft, and Meta, which is the parent company of Meta. Billions use their products and their data collection and usage have characterized their product innovation which has led them to be the dominant players in Tech and Social Media.

But after about 20 years the industry landscape is experiencing significant changes. The user growth, as mentioned previously, is still massive. But it has slowed down their growth, to an almost flat trend, in other words, there are not too many new users. In addition to this, there has also been a slowdown in the growth of digital advertising and the competition has intensified after the launching of TikTok in 2017 [17].

Moreover, the industry is experiencing significant changes in terms of regulations, which have impacted the way companies are approaching business. This change has also caused alterations in the cooperation and relationships between actors in the landscape. The data ownership changes that have occurred worldwide are particularly relevant to this project. With the launch of the General Data Protection Regulation, Europe has been taking a hard stance on issues such as data and privacy. Without a doubt, social media companies will face increasing scrutiny and regulation regarding their practices in handling data, privacy, content, and algorithms [17].

![Figure 3: Number of Social Media accounts worldwide by David Curry (2023)](image-url)
How does the future looks like for Meta?

2.2 PRIVACY & DATA POLICIES
This section looks to understand the differences between the privacy and data policies that Meta and Apple have, and in consequence, analyze where the conflict between these two companies lies.

According to scholars, the main use of privacy policies is to disclose how they handle user data since the companies later use this data as targeted advertising which is a pillar of most social media businesses [18]. There have been several researchers who have conducted studies to measure how much users understand and know about privacy & data usage. Most of these studies show that users have a very vague understanding of them, and some might be willing to exchange their data for a small reward [18] [19].

Specifically, Meta collects a vast amount of data from its users, including demographic information, such as age, gender, and location, as well as interests, behaviors, and online activities. They also explain that the collection of data differs depending on which products you are using and they collect this data even if the user doesn’t have an account [20]. They also define “activity” as all of the things users can do on their products, collecting activity across products and information provided by the users. Some of the specific types of data include:

1. **Personal information:** This includes users’ names, email addresses, phone numbers, and other contact information.
2. **Behavioral data:** tracking users’ interactions with the platform, including the pages they like, the groups they join, and the posts they share.
3. **Location data:** collecting information about users’ physical location through GPS data, Wi-Fi triangulation, and other methods.
4. **Online activities:** tracking users' online activities, including the websites they visit and the apps they use, even when they’re not on the platform.

An important factor of this topic is that Meta monetizes this data by using it to deliver targeted and personalized advertisements to users [20]. The company’s algorithms analyze the data to build profiles of users’ interests and behaviors, which are then used to match them with relevant ads. This allows advertisers to reach specific audiences and deliver more

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<tr>
<th>Purpose of data collection</th>
<th>Facebook</th>
<th>Apple</th>
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<tbody>
<tr>
<td><strong>Scope of Data collection</strong></td>
<td>Information about users’ interests, behaviors, personal information, location data, and online activities.</td>
<td>Fewer data</td>
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<td><strong>User control</strong></td>
<td>Controversy over the years</td>
<td>Commitment to privacy</td>
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<td></td>
<td>Users mistrust the use of their data collection</td>
<td>The company is known for giving users more control over their data collection and usage of it.</td>
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<tr>
<td><strong>Transparency</strong></td>
<td>Trustworthiness Crisis</td>
<td>Commitment to transparency</td>
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<tr>
<td></td>
<td>Users mistrust the use of their data collection</td>
<td>Users have more control over their data collection and usage of it with different pop-ups and notifications.</td>
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<tr>
<td><strong>Monetization</strong></td>
<td>Main revenue stream</td>
<td>Different revenue stream:</td>
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<td></td>
<td>Facebook monetizes user data by using it to deliver targeted advertising</td>
<td>Apple does not sell user data or use it for advertising purposes</td>
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**Fig. 4:** Differences between Meta and Apple’s privacy policies. Source: Meta & Apple’s webpages.
The present section aims to explore the theory and existing literature on key concepts that will later be used to develop the project. It particularly focuses on business models, their components, and business model innovation theory.

3.1 BUSINESS MODELS & DATA MONETIZATION

The term business model has been highly discussed in academia and yet there is a lack of consensus. There are several definitions of a business model but for the purpose of this project, we will define a business model as “a conceptual tool that contains a set of elements and their relationships and allows expressing the business logic of a specific firm. It is a description of the value a company offers to one or several segments of consumers and of the architecture of the firm and its network of partners for creating, marketing, and delivering this value and relationship capital, to generate profitable and sustainable revenue streams” [21].

In terms of the different components of the business models, this project will adopt a widely accepted definition that comprises six basic components. Three of these components are related to the value proposition, encompassing the target segment, product or service, and revenue model. The remaining three components are associated with the operating model, including the value chain, cost model, and organization [22].

For the purpose of analysis and discussion, this project will employ a simplified version of this definition, referred to as the value proposition. This simplified version considers the product or service and target segment, revenue and cost, and the internal organization, which consists of the organization and value chain, as well as external factors.

Meta defines its mission as giving “people the power to build community and bring the world closer together. All of our products, including our apps, share the vision of helping to bring the metaverse to life”. The parent company Meta is composed of a family of apps including Facebook, Instagram, Messenger, and WhatsApp, in addition to their Reality Labs, the company in charge of the development of the Metaverse [23].

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<th>Segment Information</th>
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<td>Revenue:</td>
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<td>Advertisign</td>
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<td>Other revenue</td>
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<td>Family of Apps</td>
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<td>Reality Labs</td>
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<td>Total revenue</td>
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<th>Income (loss) from operations:</th>
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<tr>
<td>Family of Apps</td>
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<tr>
<td>Reality Labs</td>
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<td>Total Income from operations</td>
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**Fig. 5**: Segment information of revenue and income (loss) from operations (Meta, 2023, n.d.).
As shown in Figure 3, the primary source of revenue is advertising, and the company generates the majority of its advertising revenue by delivering personalized ads to its users based on their interests and behaviors. In addition to advertising, Meta has several other sources of revenue:

1. **Marketplace**: Allows users to buy and sell items within their local community, generating fees for the company.
2. **Gaming**: their gaming platform allows users to play games, purchase virtual goods, and make in-app purchases, generating revenue for the company.
3. **Subscriptions**: Paid subscriptions to its groups, giving group administrators access to advanced features and tools.
4. **Business tools**: Meta offers various business tools, including Facebook for Business and Facebook Shops, which allow businesses to advertise and sell products on the platform. These tools generate revenue for the company through advertising and transaction fees.

Overall, while advertising remains the primary source of revenue for Meta, the company is exploring and investing in various other revenue streams to diversify its income.

In Apple’s case, the company’s business model is to “design, manufacture and market smartphones, personal computers, tablets, wearables, and accessories, and sell a variety of related services” [24].

### 3.2 BUSINESS MODEL INNOVATION

As aforementioned, the development of technology and hyperconnectivity that we are experiencing creates an environment of constant change for companies. Therefore the need for a more consumer-centric approach. Companies need to constantly check the value propositions they offer to their consumers, “the supply-driven logic” is no longer viable [25]. Companies need to be on a constant search for improvements or changes to their business model, trying to anticipate external factors that might force them to change in the future [26]. Even more, scholars point out that technological innovation alone is no longer a guarantee of revenue or economic success. In consequence, companies need to constantly improve their business models at all times [25].

This can lead to a positive impact and the maintenance or gain of competitive advantage [25]. And this is extremely important for industries characterized by major changes, such as the one discussed in this project [27].

The literature about business model innovation puts particular emphasis on what changes and how much is to change in different aspects such as creation innovation, new proposition innovation, and value capture innovation [28]. But another interesting factor to consider is the phase of the business model that the company is in. This is because the lifespan of a business model is often limited. In particular, in a fast-paced environment such as the digital world, a previously successful model may significantly decrease its ability to serve the consumer base and lose profitability [29].

Krauss (2022) also proposes four phases for the evolution of a business model. The phases are separated by different profitability performances. Particularly it highlighted the case of Meta as follows: (1) creation and Facebook and the metaverse experimentation, where the business is created and experiments on the model configuration occur; (2) growth and expansion, where the business grows in revenue and the dominant model is established; (3) profitability and efficiency, where the business runs profitably and the model achieves the highest efficiency; and (4) innovation or discontinuation, where the model is innovated or it ultimately discontinued operation.

The conflict between Meta and Apple over data privacy and the policies they have in place to regulate data collection and use can be seen as an example of business model innovation. In this context, business model innovation refers to the process of developing and implementing new ways of doing business, including new revenue streams, consumer segments, and distribution channels [30]. In this sense the current challenges that companies must face “to stay competitive in
terms of globalization and intensification of competitiveness, the volatility of market demands, shortened innovation and product life-cycles and the increasing complexity around products and processes”[31].

In the case of Meta and Apple, the differences in their data collection policies can be seen as a reflection of their differing business models. As aforementioned, Meta’s business model is based on collecting and monetizing user data through targeted advertising, while Apple’s business model is focused on delivering premium products and services, with privacy being a key selling point.

The conflict between the two companies highlights the need for business model innovation. This means that Meta will have to make changes in its current business model, which might include “design and/or reconfiguration of new and existing business models” but importantly these changes need to “constitute a subset of the larger set comprising the whole product of business model design and reconfiguration activities”[32]. This can include exploring new revenue streams, such as data brokerage or licensing, as well as developing new approaches to data privacy that balance the needs of businesses and consumers. In this sense, it is important to highlight that when this is viewed as an alteration of the different elements of its business model, changes do not need to take place in all components simultaneously to have an impact on the success of the firm [28].

Overall, the conflict between Meta and Apple over data privacy serves as a reminder of the importance of business model innovation and the need for companies to continually re-evaluate and adapt their strategies in response to changing market conditions and consumer preferences[30].

3.3 SUMMARY OF THE THEORY

In summary, this section has discussed the concept of business models and their components. These concepts will be utilized later in the discussion to address the third question of this project, which aims to establish a connection between the theory and the project’s findings. Specifically, a simplified version of the definition proposed in the theory section will be employed. This simplified version considers the product or service and target segment, revenue and cost, and the internal organization, which encompasses the organization and value chain, as well as external factors.

This discussion is relevant to the companies examined in this project, namely Meta and Apple. Meta generates its primary revenue through personalized advertising based on user interests and behaviors, while Apple’s business model revolves around designing, manufacturing, and marketing various devices and selling related services.

Furthermore, this section highlights the significance of business model innovation in a rapidly changing technological landscape. Business model innovation involves developing and implementing new approaches to conducting business, including new revenue streams, consumer segments, and distribution channels [30]. It emphasizes the need for companies to adopt a consumer-centric approach and continually assess their value propositions. Technological innovation alone is no longer adequate for sustained success. In this regard, companies face current challenges to remain competitive in terms of globalization, intensifying competition, volatile market demands, shortened innovation and product life cycles, as well as the increasing complexity surrounding products and processes [31].
4. METHODOLOGY

A multimethod qualitative methodology will be conducted for the completion of this project. The project is divided into three parts, following the research questions. The first part will include Desktop research, and thematic & content analysis to shed some light on the current situation of the conflict between Meta and Apple, in addition to identifying the key points that are being discussed regarding this conflict.

The second part will use the results from part one for the development of a Scenario planning methodology [33]. This is to explore plausible future outcomes for the industry, especially focusing on the business model of Meta and the plausible changes that the company might face in the environment.

The third and final part will relate the proposed scenarios to the different parts of a business model, particularly:

   a) value proposition & customer segment  b) revenue & cost  c) Internal organization  d) External forces.

The project is looking to gather and collect information about the problem selected through desktop research (secondary sources). This is a current and highly relevant issue in the tech industry, there is a wealth of information available from a variety of sources, including academic journals, industry publications, and online news outlets, but there have not been any recent compilations or overviews of the situation as a whole. Secondly, the content analysis and Scenario analysis are looking to gather and use the information available to explore future scenarios for Meta. This can be relevant for those in the academic world who are looking for concrete examples of how to apply Scenario analysis and how to validate the results.

**Desktop Research:** Analysis of the conflict between Meta and Apple to understand the dynamics of the conflict, the impact of privacy policies on their business model, and competitive advantage. Collecting data from secondary sources such as news articles, company reports, and opinion pieces.

**Qualitative methods:** Content analysis and thematic analysis, to identify patterns, themes, and insights related to the conflict between Meta and Apple according to the reflexive Thematic Analysis proposed by Virginia Braun and Victoria Clarke [34].

**Scenario Planning:** Scenario planning is a method used to explore potential future events and the impact they may have on a particular situation. It is often used in business, government, and other organizations to help with decision-making, risk management, and strategic planning. The case study selected for this project is a good managerial and risk management case to apply this methodology. Therefore the content and thematic analysis will provide the foundation for the scenario analysis. The project will use the identified patterns and themes to develop future scenarios to approach and explore future outcomes and identify strategies for managing the possible changes that the company might make.

**Interviews:** As part of the Oxford scenario analysis approach interviews with different experts and professionals will be conducted to test the scenarios. The interviews will be semi-structured, having three main activities. First the introduction to the project and its objective. Second, they will be explained the development of the scenarios. Lastly, they will be asked to read the scenarios. They are free to ask questions or add their opinions at all moment during the three activities.

4.1 DATA COLLECTION

**Desktop research, Content & Thematic Analysis:** For this project, several searches were done on different databases including Google Search, Google Scholar, the KTH library & Stockholm University database.

The keywords used for the searches were: Facebook/Meta, conflict, Apple, Privacy policies, and discrepancies. These keywords were used in different combinations to obtain 3 Google searches, 2 Google Scholar searches, and 1 KTH & SU university database search. The total number of inputs analyzed in this project is 102, and it comes from sources.

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1. In this project, the term "consumer" encompasses both end users and customers, as per relevant literature concepts. It refers to individuals who either use or purchase a product or service.
accessible for free or as a registered student. The search was focused on articles published from May 2020 till March 2023, which coincides with the announcement and later release of Apple’s iOS 14.5 that included the ATT feature.

After retrieving the result for all of the databases these results were gathered and a content analysis was done. For this the following information was collected: date of publication, title, link, and type of outlet. Then every source was re-read and a summary was made for every input, along with the creation of a set of keywords about the topics discussed.

After this, the data was organized by date of publication, and the thematic analysis was conducted. The keyword was counted and organized in groups of similarity to detect patterns of speculation, drivers, or trends.

Future Scenarios (OSPA): For this part of the project, the Oxford scenario planning approach (OSPA) by Ramirez & Wilkinson is utilized. This allows the project to work with the content & thematic analysis based on plausibility. “By recognizing the part of uncertainty that is unpredictable and by actively exploring the sources of the turbulence and uncertainty, the goal is to iteratively and interactively generate new knowledge and insights to help organizations reperceive their circumstances” [33].

Following the OSPA, the distinction between an organization’s immediate business environment and the broader environment, or context, was made to obtain two layers. The immediate business environment includes a company’s suppliers, customers, competitors, partners, and other stakeholders. The second layer is made up of all the factors that are beyond the organization’s direct influence, based on the first part of this project.

Specifically, the inductive method was chosen. Here the trend analysis is combined either through the development of story snippets and/or by converting them into a set of drivers of change that describe their combined impact on the transactional environment in the time horizon under consideration. The structure of the scenario set is established (induced) after developing a number of relevant and challenging stories which contrast with each other. This allows the differences among the scenarios to be compared against each other. Once a set of viable and useful futures has been generated, they are compared; then the scenario planners develop a structure that helps the purpose and the uses in this comparison [33].

In addition, the combinations selected to do the narration of the results were based on the PESTLE model with a modification of a broad variety of factors, including some or all of the following: social, Technological, Economic, Business methods, Natural resources, Political, Demographic, International, Legal, Environmental [35]. The topics were also used in a Cross-Impact analysis to detect their importance in the scenario.

Following the OSPA methodology, the scenarios were reviewed through interviews with experts. After this, the scenarios were modified and rewritten.
5. RESULTS

5.1 THEMATIC & CONTENT ANALYSIS

Q1. What are the main themes of speculation coming from secondary sources about the conflict between Meta and Apple?

The thematic analysis was conducted as the initial step, leading to the identification of eight major themes from the sources utilized in this project. These themes, along with the results of the content analysis, are displayed in detail in the appendix. The main 5 categories include topics that have been conglomerated into a) Privacy (26%) b) Business (23%) c) Advertisement (17%) d) Data (16%) and e) Users (8%).

Every input used for this analysis was assigned keywords or topics independently. After this individual process was done, these were coded into the topics. In Figure 5 you can see the detail of all of the keywords and their relation with the topics.

In terms of content analysis, there was a total of 74 topics, the most recurrent ones were:

1. **Privacy**: Privacy, User privacy, regulations, User Data, Transparency, and User consent.
2. **Business**: Tech Industry, Revenue, Tensions, Competition, Social media, Share price
3. **Advertisement**: Targeted advertisement, Digital advertisement, Advertisement revenue.
4. **Data**: User data, Data tracking, Data protection, and data collection.
5. **Users**: Trustworthiness, User, Public perception, Antitrust.

![Fig. 7: Topics & themes.](image-url)
5.2 SCENARIO PLANNING

Q2. What plausible scenarios can Meta explore based on the effects of Apple’s privacy policy changes analyzed in the project?

The development of scenarios followed the steps outlined in Figure 4. The initial step involved utilizing the results obtained from the thematic and content analysis. These results were organized in a matrix to facilitate a comparison of their impact on the company and the predictability of the topics [36]. Subsequently, the matrix was utilized to select the topics to be included in the future scenarios. In Figure 6 you can see the position of the topics with the addition of their importance according to the previous results.

Furthermore, the methodology proposes the differentiation of topics into two layers: the transactional environment and the contextual environment. This analysis was conducted to identify the topics that Meta directly influences, such as competitors, as well as those that have an impact but cannot be directly affected by Meta. This information was then combined with cross-impact analysis to gain a comprehensive understanding of the type and magnitude of the various topics’ impacts.

Finally, an expanded version of the PESTLE analysis [35] was utilized as a filtering mechanism to prevent the selection of similar factors for scenario development. The topics were categorized into two groups: drivers and topics. This categorization was proposed by the project to create detailed scenarios without excessive information. Consequently, the relevance of topics varied depending on whether they were drivers or topics, respectively. This approach was based on quality assessments of the scenarios, with the main criterion being “plausibility.” Moreover, efforts were made to reduce uncertainty to a manageable level. The selection process ensured that each scenario comprised approximately 8 to 10 topics, trying to avoid repetition and following the described prioritization.

Another important factor to decide previous to the redaction of the scenarios is the time frame of them. According to the literature, there are different time frames such as one year for budget, 1-5 years for financial planning cycle, 3-5 years for a political cycle, 3-5 years for an industrial business cycle, 3-5 years for strategic planning, among others [35]. Additionally, the literature suggests that the actual business model of Meta is in the “innovation or discontinuation phase”, which points out that Meta takes aim at an innovation trajectory, but the changes that the company is aiming for will not be quickly traversed. Additionally, the technological vision of Meta is rather ambitious and will need constant utilization and expansion of Meta’s current technological base [28]. Based on this logic the scenarios are designed to describe the future environment that Meta will face in 10 years.

Interviews

In order to complete this project, interviews were utilized as a means of iteration and collaboration. A total of three expert interviews were conducted, with two of them taking place in person and one conducted online. To maintain privacy, the participants’ names will not be disclosed and will be referred to as Interviewees A, B, and C.

Interviewee A is an industry professional specializing in international business, international economics, innovation, and industrial & technological change. They hold a Ph.D. in political science. The interview took place at the KTH University premises and lasted approximately 1 hour and 30 minutes.

Interviewee B is an industry professional with expertise in digital marketing, content creation, and communications. The interview was conducted online and lasted approximately 1 hour.

Interviewee C is the CEO and Founder of an international consulting and research company. With a Ph.D. in Business Administration, their expertise lies in trend analysis, innovation, strategy, and software support for AI-driven analytics. It was conducted in the company’s Stockholm office and it lasted 1 hour approximately.
Firstly, the participants were given a brief introduction to the project and presented with the findings of the thematic and content analysis. After that, a concise summary table was presented to them, outlining the discussed trends and topics. Finally, they were asked to individually read scenarios 1 and 2. Following their reading, they provided their inputs on the quality of the scenarios, highlighting plausible connections, trend developments, and the overall narrative.

During the interviews with participants A and B, the main focus was on discussing the speculations and topics and how they are interconnected with Meta. Both participants expressed agreement with the selected trends and considered them “plausible,” noting that the scenarios did not seem “too distant from the present”. Additionally, participants A and B observed that the scenarios’ inclusion of contrasting positions for Meta, with one being more optimistic and the other more challenging, was beneficial for the exercise and project. The addition of a third one with a combination of both position in the middle of the “best” and the “worst”. It was also suggested in the three interviews to reduce the factors to 2 and then create an interconnection map to see how they impact each other and be able to prioritize them, giving a more clear focus to the scenarios. Overall, scenario 1 received better evaluations compared to scenario 2.

The most relevant observations for scenario 1 are:

a. Change the concept of capitalism for consumerism. Interviewee A stated that capitalism was too broad and was hard to relate to Meta directly. They suggested that an interesting case is the regulations of duopolies (in this case in the advertisement industry with Google and Meta being in control due to their market share).

b. Change “Europian union” and “US” adding “legislation”, so they are clearer and easier to compare. Also, be more specific about the trend, so, for example, it can be “lack of legislation” or “strict legislation”.

c. Participant B mentioned that the Metaverse is in the early stages of development and that for it to take off external forces need to help it to become massive and gain traction.

In regards to Scenario 2, the most relevant observations are:

a. Exploring the effect that social media has on humans physically and mentally.

b. Consider the trend of the lack of third spaces and social interactions after the pandemic and how this could evolve.

c. Consider how AI assistants are perceived by humans. The more companies give them human characteristics, the greater difficulty for humans to perceive them as technology or a tool only. If this is exacerbated humans can even develop emotional attachments to them.

d. Relationship with work, and how people are separating the spheres of personal and work more and more, aiming to have a balance between them.

e. Explore how the legislation might affect the ecosystem. Lack of legislation makes the companies more conservative with their investments because of the future changes that can be later implemented. But strict regulations might also prevent the investment and development of new technology and or products.

The interview with Participant C was particularly focused on the methodology of the development of the scenarios. They pointed out that even though the methodology the project is following is qualitative, there are certain ways to quantify and prioritize the topics. They suggested the following analysis:

a. Cross Impact between the topics to see which ones are the most impactful ones in relation to the others.

b. Keep a maximum of 2 or 3 topics as major per scenario and further explore how they connect without adding too many other big factors.

c. Map the relation between the topics starting with the most significant one from the cross-impact analysis, and add the rest of the topics focusing on how they are connected to make it easier to describe their relationships in the scenario.
Redesign

Based on the previous work done for scenario 1, the main topics of speculations were reduced to 3 main ones. Then these topics were subjected to a cross-impact analysis to categorize the main trend that was influencing the scenario. A cross-impact analysis is a method for identifying interrelationships. Here the impact of each trend on every other trend is graded, in this case from 1-4 [36]. In this case, as seen in Figure 7, the result of this led to the Climate crisis as the main force, followed by the development of VR technology and lastly, stricter regulation implementations.

To deepen the scenario the main topics were mapped to see how these drivers could impact other trends and explore their relationships and possible outcomes. This led to a three-level topic categorization, where the first one includes the main drivers, the second one includes topics that relate to these drivers, and the third one possible outcomes of both the first and second layers.

The main drivers in this scenario include the expansion of AI technology, the emergence of new banking systems based on cryptocurrencies, and the absence of legislation in the tech industry. Additionally, secondary topics encompass the growth of human-like personal assistants, driven by the demand for "third spaces" and new social behaviors.

In conclusion, this project offers valuable insights into the scenario planning methodology, as it meticulously documents each step leading to the final proposed scenarios. By conducting data analysis and thorough investigation, the project achieves a deep understanding of the conflict between Meta and Apple, addressing the key topics of speculation identified through media scanning, thematic analysis, and content analysis.

Based on these findings, the topics are organized and categorized through multiple independent rounds, including impact analysis, cross-impact analysis, OSPA layering, and a modified version of PESTLE analysis. These methodologies facilitate the visualization of uncertainties and trends, which are subsequently utilized to develop the scenarios. These results illuminate plausible scenarios that Meta may encounter in the next 10 years. Furthermore, the observed trends and patterns underscore the necessity for further research and exploration in this field.
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SCENARIO 3

The AI revolution

The world finds itself in a rapidly evolving landscape shaped by the growth and massification of Artificial Intelligence (AI). Surpassing any expectation, it has integrated into various aspects of society, revolutionizing industries and transforming the way people live their everyday life. This technology has replaced several aspects of human life replacing tasks and decision-making processes.

However, the lack of comprehensive legislation governing the Internet has created both opportunities and challenges. While the internet remains a vast source of information, its unregulated nature has allowed for the proliferation of misinformation, cybercrime, and threats to user privacy. Governments and international bodies are trying to deal with the need for clear frameworks that balance freedom of expression and innovation with the protection of individual rights and security. But the lack of consensus has the legislation still lagged.

As AI continues to advance, personal assistants have become extremely popular. These AI-powered companions seamlessly integrate into people’s lives, managing daily tasks, offering personalized recommendations, and adapting to individual preferences. Personal assistants have become an essential tool, but thanks to personalization and Anthropomorphizing features, users have slowly started to develop an emotional attachment to them. And slowly personal virtual assistants have even started to replaced family and partner interactions.

The need for "third spaces" has become increasingly pronounced. Even though work and personal lives seem to be more balanced, individuals seek social interactions in virtual environments that provide a sense of community. These third spaces serve as hubs for collaboration, relaxation, and socialization, enabling individuals to connect with others, exchange ideas, and find balance in their lives.

The evolution of technology and the use of social media have changed social behaviors leading to new patterns of interaction. In-person activities and interactions have become rare, and the digital world has become the new reality. Pushing the growth of the Metaverse.

A new banking system has emerged. There are infinite alternative forms of currency and financial exchange, all exclusively digital. Traditional banking structures have been disrupted by decentralized systems powered by blockchain technology, providing individuals with greater control over their finances and economy.

In response to these trends, new business models have emerged. Startups and established companies alike are leveraging AI, blockchain, and digital platforms to create innovative solutions that cater to evolving consumer needs. Companies that successfully navigate this landscape prioritize a customer-centricity focus. The new screens and data analysis tools have merged to offer endless options for users, leaving them hyperconnected and isolated at the same time.

In the near future, information has become the new power. The ability to access and leverage data has become a critical determinant of success in various domains. Especially for AI technology that learns and is trained based on data points. Access to quality trained models has become more and more expensive and with the vast amount of options, the decision of which technology to use has become more critical and difficult for end users.

The world is slowly seeing the implications of AI, new banking systems, the lack of internet legislation, personal assistants, and online third spaces. Social behaviors have been deeply impacted by social media and it is crucial for individuals, organizations, and governments to navigate these trends responsibly and be mindful of the future impact of the impact of technology on mental well-being. Balancing innovation, privacy, security, and social well-being will be essential to shaping a future that harnesses the full potential of these advancements while safeguarding humanity.

Q3. How do the scenarios examined in the project align with Meta's business model components and the theory of business model innovation?

This project aims to illustrate the relationship between the scenario planning approach and business models, as well as the theory of business model innovation. This will be accomplished in the discussion section of the paper by connecting the previously discussed theory with the findings presented in sections 5.1 and 5.2.

The scenario planning approach employed in this project utilized thematic and content analysis to explore future scenarios that are of interest to Meta and prepare for the future. This exercise underscores the importance of business model innovation in a rapidly changing technological landscape, in which both Meta and Apple operate. Therefore, in the discussion section, the project will propose strategies for developing and implementing new approaches to conducting business, including exploring new revenue streams, customer segments, and distribution channels [30].

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2 In this project, a total of five scenarios were developed, and the four remaining ones are accessible in the appendix section. Specifically, Scenario 3 was crafted based on feedback acquired from interviews.
6. DISCUSSION

This section of the project will look for an interpretation and analysis of the obtained results, with the objective of gaining a comprehensive understanding of the findings within the framework of the research questions put forth in the project. We will examine the implications of the results in comparison to existing literature and theory, and explore potential explanations for the observed outcomes.

Q1. What are the main themes of speculation coming from secondary sources about the conflict between Meta and Apple?

This project analyzed publications of different types including news outlets, research papers, transcripts, and company written statements, to look for answers. Both Apple and Meta are considered among the main players in the tech industry till the present day. The users of both companies are reflected in millions and these companies have an impact in different aspects of end-users lives. This project results highlight four themes as the most mentioned and speculated about the conflict between Meta and Apple: Privacy, Business, Advertisement, and data. All of them are closely related to both companies and will be discussed in detail in this section.

The release of iOS 14, which included the App Tracking Transparency caused a break in the equilibrium in the ecosystem. And was used to center the discussion on the Privacy aspect of data and social media in general. The main discussed topic in this theme was the changes in privacy policies, and it was mentioned in 77% of the sources analyzed.

This discussion can be said to be rooted in the fact that Meta and Apple have quite different stances on privacy and data usage. Meta claims that their use of data is justified in order to enhance people’s experiences. Due to this conflict, it is claimed that it will not only affect the end users who won’t receive tailored content but also the small and medium companies that use Meta’s products for advertising purposes [37].

This connects with the next significant theme found in the results, which is business. As mentioned earlier, Meta’s primary source of revenue is advertising. This theme was extensively discussed in the media and therefore became a relevant topic for this project, being mentioned in 56% of the sources. The majority of the sources discussing business as a theme focused on revenue and speculated on the changes that would occur in the ecosystem. Meta, being one of the strongest players, has focused on how their revenue will be impacted and how this has created tensions between companies (Apple-Meta) due to the shift in power attributed to Apple [38].

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**Fig. 10:** Main topics in Privacy theme.

**Fig. 11:** Main topics in Business theme.
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Overall, Meta’s results were affected but not as critically as initially speculated. The annual revenue for 2022 was $116.609 billion, a 1.12% decline from 2021, and for the twelve months ending March 31, 2023, it was $117.346 billion, a 1.94% decline year-over-year [39].

The third most mentioned theme was Advertisement, here the speculation revolved around how these changes will not only impact Meta as a key player in the industry, but many sources mentioned Google and smaller companies. The discussion was also centered on the targeted advertisement content and how it will be affected by these changes. After two years several analyses have been done and they highlight that despite these changes the digital advertisement industry has continued to grow, with a year-over-year of 34.5% in 2021 and a 10.8% in 2022 [40]. We can definitely argue that the industry is undergoing changes and this is affecting the profits but it will be hard to argue that the changes are extreme or that the industry is extinguishing yet.

Lastly, one of the most recurrent topics was data. Data was approached from several perspectives, including data tracking as the mechanism used for advertising, as well as data protection and privacy, which are closely linked as they relate to users’ desire to have their information secured.

In the theoretical section of this paper, it is mentioned that most studies indicate that users have a vague understanding of data privacy, and some may be willing to exchange their data for a small reward [18,19]. However, the results of this project suggest a slight change in this position. Media outlets are reporting more critically on data usage, as evidenced by an estimated 65% of iOS users choosing to opt out of disclosing their data to companies and apps. This trend of opting out has improved [41], which supports the idea that users are becoming more aware and actively deciding not to disclose their information.

Q2. What plausible scenarios can Meta explore based on the effects of Apple’s privacy policy changes analyzed in the project?

This project resulted in a total of 74 different topics that can be used to develop several scenarios. Specifically, this project focused on the development of five scenarios, with two of them being variations or improved versions of previous ones, and one being an independent scenario developed after conducting expert interviews. The aim of this project is to shed light on plausible scenarios that Meta might encounter.

However, the literature emphasizes that scenario planning involves searching for better questions rather than simply solving problems [42]. Therefore, while this project proposes three different scenarios, the value of this project does not solely lie in the scenarios themselves. Each scenario presented is plausible but may not necessarily become a reality. The open format used in this project, without defining ‘right’ or ‘wrong’ outcomes, facilitates shared exploration of the future [36]. This methodology allows for the creation and analysis of multiple plausible versions of the future. Although the future cannot be predicted, this methodology assists companies in preparing for it [43].

As a result of this particular project, 3 possible scenarios were explored as displayed in the following figure:

**Scenario 1**
1. Climate crisis
2. Stricter privacy legislation
3. VR technology development

**Scenario 2**
1. Gen Z
2. Security crises
3. Duopoly legislation

**Scenario 3**
1. Artificial Intelligence (AI)
2. New banking systems
3. Lack of legislation

*Fig. 12: Summary of topics used in the Scenarios.*
In **Scenario 1**, the main trend is the impact of the climate crisis, which forces people to spend more time indoors and leads to a greater reliance on digital platforms. In this scenario, Meta’s efforts in developing and enabling widespread digital living prove to be highly beneficial for the company. Their investments and new products pay off, resulting in increased revenues and potentially opening doors for business model innovation.

In **Scenario 2**, the primary driver of change is Generation Z. Over a span of 10 years, these users will have experienced significant changes as they grow up and become fully integrated into the workforce. This shift in demographics grants them greater influence over decision-making processes within the companies they work for. They have the power to opt out of working for a company that doesn’t align with their values, and such choices can have consequences for those companies.

This scenario presents a more challenging situation for Meta, as they have struggled to connect with this generation. They now face the long-term effects of controversies and conflicts they have had in the past, whether with individual users or other companies. Their reputation has suffered as a result, and they are tasked with the challenge of rebuilding trust and recovering from their negative image.

In **Scenario 3**, AI technology has advanced significantly and has permeated various aspects of human life. The digitization of the world has led to a crisis in the traditional banking system, and companies must adapt to the emergence of new payment methods and cryptocurrencies. The absence of comprehensive legislation in this field plays a crucial role, as it necessitates changes in companies and creates opportunities for innovation.

This scenario presents a future where Meta can also explore new avenues for innovation and develop new products or services. The evolving landscape provides Meta with the potential to leverage AI technology and navigate the changing financial and regulatory environment. It offers them opportunities to contribute to the development of alternative payment systems and capitalize on the growth of cryptocurrencies.

Overall, the proposed scenarios aimed to highlight contrasting yet plausible realities that Meta may face in the future. While the implementation of Apple’s App Tracking Transparency (ATT) feature may not have had as significant an impact as initially speculated, it provided an opportunity to explore various interconnected topics and forces associated with the conflict. Through the scenario analysis approach, different combinations of these factors were examined to envision potential outcomes for Meta. This methodology allowed for a deeper exploration of the potential challenges and opportunities that Meta might encounter in the future.

**Q3. How do the scenarios examined in the project align with Meta’s business model components and the theory of business model innovation?**

Overall, the analysis of the conflict between Meta and Apple over data privacy shows the importance of business model innovation and the need for companies to continually re-evaluate and adapt their strategies in response to changing market conditions and consumer preferences[30]. If today’s business landscape continues to accelerate the changes in the future, companies must constantly reassess and adapt their strategies to meet the market conditions and attune to new consumer preferences. Business model innovation becomes crucial in this context, as it enables companies to explore new approaches and mechanisms for generating revenue, engaging with users, and maintaining a competitive advantage.

As explored in the theory section of this project, the business literature offers a broad range of definitions for the components of a business model. However, there is a general consensus that a business model comprises the following elements: Value proposition and customer segment, Revenue & cost, Internal organization, and External forces.

These components shape the way a company creates, delivers, and captures value. The value proposition and customer segment involve identifying the unique value the company offers to its target customers. Revenue and cost considerations pertain to the financial aspects of the business, encompassing revenue generation and cost management. The internal
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Organization encompasses the structure, processes, and capabilities within the company, while external forces refer to the external factors that impact the business, such as market trends, competition, and regulatory environment.

Business model innovation refers to the process of developing and implementing new ways of doing business, including new revenue streams, customer segments, and distribution channels [30]. This will be explored as part of this discussion: How do the different topics and drivers in the scenarios can contribute to this process?

When discussing Scenario 1, this project argues that there is a connection between the climate crisis and the creation of a new value proposition. In this scenario, Meta, specifically the metaverse, has succeeded by fulfilling the need for third spaces and enabling social interaction through virtual reality technology that brings the metaverse to life. This scenario leverages the global climate crisis to retain current users and also offers opportunities to attract new customer segments, such as Generation Alpha and Beta.

In terms of revenue, this scenario explores new products like VR technology that enable access to the metaverse. It is also interesting to explore other alternative revenue streams, such as subscriptions or fixed payments for access to the metaverse itself. In terms of costs, it is worth investigating the production and supply chains. Meta may consider emulating Apple’s business model, focusing on manufacturing and selling VR products.

To support this direction, Meta’s internal organization will need to establish several new branches responsible for both digital and physical product development. However, this presents a significant challenge as it may take years to build and prepare for in-house production. So if this is among Meta’s goals, then the organization and resources must start slowly implementing solutions for it.

This particular scenario also takes into account external forces such as government and international agencies that are strengthening legislation around privacy, transparency, and data usage. Meta’s current business model, relying on targeted advertising, will no longer be able to serve as the main revenue stream. Therefore, it is crucial to prepare for these losses and shift gears if this scenario were to become a reality.

When discussing Scenario 2, it is interesting to observe the shift in the customer segment. Although Meta’s products are currently being used by these users, given their young age, it is reasonable to assume that their user behavior may change. In this regard, Meta needs to study and assess their needs and preferences in order to modify its products accordingly or target a different customer segment.

Regarding revenue and cost, it is intriguing for the company to explore a scenario where they may face a challenging position, such as a potential escalation of the US long-standing conflict with China, considering that Meta’s headquarters are located in the US. Even more, if Meta were to start manufacturing and selling their VR solutions and opt for “offshoring” in China, it would be an even more critical situation for the company, not to mention the potential social and global impacts it might have.

The internal organization and external forces challenge proposed in this scenario revolves around the implementation of duopoly legislation. If this were to become a reality, Meta would no longer be able to acquire other companies to incorporate them into their business or eliminate competition. Consequently, their freedom to grow and dominate the industry would be significantly restricted.

In Scenario 3, we can discuss the growth and widespread adoption of AI technology as a potential avenue for Meta to explore new value propositions. By rapidly incorporating personal assistants into households and leveraging VR technology, Meta could develop interesting products that aid in the popularization of their current offerings, such as the Metaverse. This is particularly important for the company given their investments in this area and the need to generate traction.
Revenue and cost challenges in this scenario are closely tied to the emergence of a new banking system and cryptocurrencies. It is intriguing for the company to navigate a world where exchanges and currencies are solely digital and part of a decentralized system. Currently, the USD has established itself as the global currency (e.g., oil is traded in USD regardless of the transaction location), which benefits the company. However, the proposed changes in this scenario could pose a threat to this advantageous position.

External forces come into play in the form of competitors. If Meta fails to explore the AI and personal assistant path suggested by this scenario, it could open doors for other companies to enter the market and gain influence. This becomes especially critical in the digital world and for mobile apps, where changes happen rapidly and allows little room for reactive responses. Thus, this scenario is valuable for Meta to consider in order to avoid missing out on opportunities for new business models.

Regarding internal organization, this scenario does not specifically impact any trends. Nevertheless, the company should consider how incorporating new products, revenue streams, and overall decision-making will affect its internal organization. It is important for Meta to keep this aspect in mind, even if it is not the most affected part of their business model.

7. LIMITATIONS & FUTURE WORK

The limitations of this project are associated with the availability of secondary sources and data entries. Due to time and resource constraints, only 102 data entries were considered for the thematic and content analysis, which restricts the results of that specific section of the paper. An interesting suggestion would be to replicate this exercise by involving the companies themselves, with representatives participating in all three steps of the project: thematic and content analysis, scenario planning, and discussion of the scenarios regarding the business model and business model innovation theory.

Despite this limitation, the value of this project lies in highlighting the speculative themes surrounding the ongoing conflict between Meta and Apple. Additionally, it serves as a case study for the scenario analysis approach proposed by Oxford (OSPA). This project is not intended to serve as a step-by-step guide, but rather as a clear example of how the process was conducted, providing guidance for individuals or companies interested in using this methodology.

There is ample room for further exploration of the conflict between Meta and Apple, as new developments continue to emerge as of June 2023. The same applies to the OSPA methodology, as an increasing number of companies are expressing interest in applying this approach and engaging in scenario planning. This is a result of the rapidly changing landscapes witnessed in the tech industry, both specifically and globally.

8. CONCLUSION

In conclusion, this case study provides valuable insights into the conflict between Meta and Apple regarding their privacy policies. Through rigorous data analysis and comprehensive investigation, we have gained a deep understanding of the main topics of speculation surrounding this conflict and addressed the objectives of our study.

Our findings indicate that the main themes of speculation were privacy, business, advertisement, and data. These results shed light on several specific topics, including user consent, data ownership, user privacy, targeted advertisement, legislation, and more. Moreover, the observed trends and patterns highlight the need for further research and exploration in this area. This project explored five different outcomes that Meta could face in the next ten years, aiming for plausibility and contrast to transform them into tangible possible realities. This exercise allows the companies, and in this case, the author of this project, to analyze the challenges and opportunities presented by these scenarios and evaluate their impact on Meta's business model.
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It is important to note that this study has limitations, particularly in the data collection process. Due to the time frame and project characteristics, we collected only 102 data points, which restricts the breadth of our results. Despite these limitations, our methodology, characterized by openness and thinking outside the box, coupled with rigorous data analysis, enhances the validity and reliability of the final results: the scenarios and their discussions.

The implications of this research extend beyond the scope of this study. This conflict between Apple and Meta not only affects these two companies but the entire ecosystem of companies that interact with them. The findings presented here can serve as a foundation for future investigations in any industry, as they illustrate the steps taken to develop scenarios and facilitate further discussions.

In summary, this study contributes to the existing body of knowledge by providing valuable insights and advancing our understanding of scenario analysis and its connection to the business model innovation theory. The findings offer new perspectives, raise important questions, and pave the way for further exploration in this dynamic field.

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11. APPENDICES

1. Result of thematic and content analysis

![Ranking of themes]

- Privacy: 8.3%
- Business: 28.0%
- Ads.: 17.0%
- Data: 17.6%
- User: 24.2%
- Legal
- Content

**Ranking of topics in Privacy**

- Privacy: 40
- User privacy: 30
- Regulations: 20
- User consent: 15
- Transparency: 10
- Privacy-focused: 5
- Impact: 0

**Ranking of topics in Business**

- Tech Industry: 40
- Revenue: 30
- Tender: 20
- Competition: 15
- Social Media: 10
- Share Price: 5
- Innovation: 0
- Business Model: 0
- Financial Report: 0

**Ranking of topics in Advertisement**

- Targeted Ads: 40
- Digital Advertising: 30
- Ad Revenue: 20
- Advertisement platform: 15
- Performance: 10
- Target Users: 5
- Contextual Advertisement: 0
- Marketing: 0

**Ranking of topics in Data**

- Data tracking: 40
- Data Protection: 30
- Data Collection: 20
- Data Security: 15
- Data Breaches: 10
- Data Privacy: 5
- Advertisement: 0
- Data Monetization: 0
- Big Data: 0
- Data Minimization: 0

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2. Result of Scenario development
3. Scenarios - Full text

Scenario 1: Virtual Existence: Welcome to the Metaverse

The world has undergone significant changes in the last 10 years, shaped by a convergence of factors that have profoundly impacted society. Meta, the global tech giant, has regained its dominant position in the digital realm, revolutionizing the way people interact, work, and live, thanks to their investments in virtual reality and the creation of the Metaverse.

The rise of the Metaverse, a fully immersive virtual reality experience, has contributed to both excitement and concern. The company took advantage of the current climate situation, where due to pollution, temperature, and other environmental factors, humans are no longer able to spend much time outside anymore. On one hand, the metaverse offers a solution for this with unprecedented opportunities for creativity, collaboration, entertainment, and business. People can explore vibrant virtual worlds, attend virtual concerts, work, and engage in immersive experiences that have almost no limits. However, the metaverse has also magnified social segregation.

As the metaverse expands, these societal divisions have become more pronounced. Economic disparities have translated into “digital class divisions”, with those who can afford advanced VR technology and high-speed internet enjoying the full benefits of the Metaverse, while others are left behind. This social segregation has created a virtual reality divide,
exacerbating existing inequalities both in the digital and physical world.

The Metaverse’s creation led to economic changes like the creation of a new banking system that is completely virtual. There is no more cash and all payments are done online. The cryptocurrencies slowly developed and established their position introducing this new decentralized and versatile “banking system”. The world slowly left the official currencies and migrated to accept these new mechanisms of payment leading to the transformation or extinguishment of the traditional bank system.

This new system led to big changes in Data ownership. It has become a critical issue in this new era. Metaverse has continued with the trend of user-generated content, which often blurs the lines between personal and corporate ownership. Young users, especially digital natives, are acutely aware of the value of their data and are no longer willing to share or sell it anymore. Activism and movements centered around data privacy and ownership gained traction, and governments were forced to strengthen the legislation in terms of transparency and control over personal information. These changes hit hard on Meta’s old revenue system based on targeted advertisement, since a lot of young users are paying to have privacy-focused services that make sure that companies are not able to track their digital actions and preferences, and also prevent them from getting targeted content. The new generation perceives this as deceiving since they want to explore the digital world themselves without having some “invisible hand” who provides them with specific content.

The relentless pursuit of profit and shareholder value has started to erode people’s trust in the government, leading to the start of the Capitalism crisis. Dissatisfaction with the status quo and the concentration of power in the hands of a few corporations like Meta has sparked a global movement for a more equitable economic system. The younger generation plays a vital role in driving this change, leveraging the metaverse and other social media platforms to organize protests, advocate for alternative economic models, and support local businesses. This is a big challenge for Meta’s developers who constantly need to improve and surveil their security systems.

Overall, the convergence of the Metaverse, social segregation, climate crisis, data ownership, and capitalism crisis, has created a complex and dynamic landscape. The metaverse has great potential for positive change but also presents challenges that require careful examination. How society responds to these challenges will determine the path toward a more inclusive, sustainable, and equitable future, or the polarization will continue until it collapses.

**Scenario 2: Losing Control: The Reign of Gen Z**

In 10 years, the world has undergone significant transformations, driven by a deep consciousness of the environment and the growing concerns of the younger generation. This generation, known as Gen Z or the digital natives, has shaped a society where environmental awareness and sustainability have become paramount. The consequences of climate change and ecological degradation have left an indelible mark on their collective consciousness, compelling them to prioritize the well-being of the planet in every aspect of their lives.

Simultaneously, artificial intelligence (AI) technology has advanced to unimaginable heights, surpassing the expectations of previous generations. It has seamlessly integrated into everyday life, becoming a ubiquitous presence that is no longer questioned. AI now replaces several traditional aspects of human life, automating mundane tasks, providing personalized assistance, and making decisions based on vast amounts of data.

In this future scenario, the shift in user behavior is striking. People have become skeptical of the information overload and rely on AI to provide accurate and trustworthy answers. Transparency is highly valued, and individuals seek credible sources to validate AI-generated responses. Companies that can provide the correct sources and build trust with their customers thrive in this new landscape, while those lacking transparency struggle to maintain relevance.

One such company that has experienced a significant decline is Meta. Despite its initial success, Meta has failed to
convince the younger generation with its products. The younger users, in particular, have abandoned the platform, finding it out of touch with their values and concerns. Meta's loss of trust is not limited to its user base; even its employees have grown disillusioned with the company's direction. The once-mighty Tech Giant now finds itself struggling to retain its influence and prestige.

Gen Z, now fully integrated into the workforce, has transformed the tech industry with its relentless pursuit of innovation and desire for positive change. They have introduced stricter regulations to hold tech companies accountable for their actions, particularly regarding privacy, data protection, and ethical AI practices. The internet, once an uncontrolled realm, has transformed into a more controlled environment, ensuring that companies can no longer exploit outdated business models for unlimited gain.

The advertising industry has not been immune to these shifts. Faced with a new generation of consumers who value authenticity, sustainability, and social responsibility, traditional advertising methods have lost their effectiveness. Advertisers are forced to adapt and find creative ways to engage with this audience. Influencer marketing no longer works because customers want to hear reviews from unbiased sources. This shift has made content-driven campaigns and purpose-driven brand narratives take center stage, aligning with the values and aspirations of the younger generation. But it has also shifted the power from companies to users.

Moreover, the advertising industry faces pressure from new legislation and public scrutiny regarding its past practices. The industry's role in perpetuating consumerism and contributing to the environmental crisis has come under intense criticism. Advertisers must now navigate a challenging landscape, balancing profitability with social and environmental responsibility.

In this future scenario, the mixture of conscious environmentalism, pervasive AI technology, new user behaviors, and increased regulation has pushed the advertising industry to the brink of crisis. It is a time of uncertainty but also one of great potential for positive change in the way humans interact with technology and the world around them.

**Scenario 1.1: The rise of the Metaverse**

The world has undergone significant changes in the past decade, as a result of various factors that have had a profound impact on society. Meta, the global tech giant, has once again established its dominant position in the digital industry, revolutionizing the way people interact, work, and live. This has been made possible through their investments in virtual reality and the creation of the Metaverse.

The rise of the Metaverse, a fully immersive virtual reality experience, has generated both excitement and concern in society. In the current environmental crisis, where pollution, temperature, and other factors restrict humans from spending much time outdoors, the concept of the metaverse offers comfort and escape. Users, who are now constantly confined, find a solution to their need for social interaction. In the metaverse, they can form new social connections and engage in recreational activities.

On one hand, the metaverse provides unprecedented opportunities for creativity, collaboration, entertainment, and business. People can explore vibrant virtual worlds, attend virtual concerts, work, and immerse themselves in experiences that have almost no limits. However, the metaverse has also accentuated social segregation and deeply affected human interaction.

The creation of the Metaverse has led to legislative changes, such as the establishment of a new international privacy agreement that has completely transformed the virtual world. This new system has brought significant changes in data ownership, a critical issue in this new era. The metaverse continues the trend of user-generated content, often blurring the lines between personal and corporate ownership. This created a big problem for young users who had greater difficulty differentiating between advertisement and regular user-generated content. Slowly these users are changing their minds...
and being more aware of the value of their data and are no longer willing to share or sell it.

These changes can have a profound impact on Meta’s previous revenue system, which relied heavily on targeted advertisements. Other companies saw the opportunity in this shift of preferences from young users and have developed privacy-focused services. Slowly we can see a trend where young users are paying for these services that ensure companies like Meta cannot track their digital presence and prevent them from receiving targeted content. The new generation wants to explore the digital world on their own terms, without an "invisible hand" providing them with specific content.

Overall, the convergence of the climate crisis, social segregation, data ownership, privacy regulations, and preferences of new users has created a complex and ever-evolving landscape. The metaverse holds great potential for positive change but it also faces challenges that require careful examination for the success of the company.

**Scenario 2.1: The War of the Potencies**

In the last 10 years, the world finds itself in a scenario shaped by the rise of Gen Z. Fully incorporated into the working force, they have created a shift in values and priorities. This generation, characterized by its tech-savviness and social awareness, demands more from the world and its leaders. They grew up with environmental awareness and sustainability as key factors, prioritizing the well-being of the planet in every aspect of their lives.

Meanwhile, a series of security crises between the United States and China has heightened tensions between the two global superpowers. The battle for technological supremacy and control over data has escalated, leading to increased speculation and fear of an escalation of the conflict in the world. Meta has developed new forms of VR, but the tension between US and China has forced them, among other companies, to reassess their internal structures, governance, and supply chain to ensure their operations and product development investments.

In response to concerns about the power wielded by tech giants, governments worldwide have enacted duopoly legislation specifically targeting the tech and advertisement industry, both part of Meta’s transactional environment. Companies, once unrivaled in their dominance, now face strict regulations aimed at ensuring fair competition, protecting user privacy, and preventing the manipulation of information.

Amidst these developments, there is a growing fear of technology among the general population. The rapid advancements in artificial intelligence, automation, and virtual reality have led to anxieties about job displacement, loss of privacy, and the blurring of the line between the physical and virtual worlds. This fear prompts individuals to question the role and impact of technology in their lives, seeking a balance between its benefits and potential drawbacks. Meta is trying to rebrand the Metaverse as a safe space, but given its reputation and history of scandals with data and privacy, combined with the lack of trust that characterizes Gen Z, their new products are still to take off.

Simultaneously, healthier and more conscious lifestyles have become prominent trends. Gen Z, along with other age groups, places a strong emphasis on physical and mental well-being, as well as sustainability. This shift in consumer behavior drives companies to adapt, offering products and services that align with these values. There is a surge in demand for organic, plant-based, and ethically sourced products, as well as an increased focus on mental health support and work-life balance within corporate environments. People are more conscious of their technology interactions and no longer want to spend hours in front of a screen as they used to do.

In this future scenario, the world navigates a landscape shaped by Gen Z. The security crises have also played a key factor in the management of innovation and product development. Adapting to these changes becomes a crucial factor for companies striving to thrive and build a sustainable future in an ever-evolving business landscape.