Attached to the Algorithm

An explorative study of young adults' user perspective on TikTok

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Abstract

TikTok is currently the fastest growing digital platform in the world, and with more than 1 billion users it has the potential to influence people's lives. On the platform's For You page, content varying from trending dances to political messages are shared in a short-video format. What makes the platform special is the way an algorithm personalizes the content users watch. In this thesis, I explore how young adults reflect around and perceive themselves as users of TikTok.

Based on 8 qualitative interviews, I analyse users' relation to TikTok through an attachment framework and look at how they are both addicted and influenced. With a comparative analysis, I look at how different personal characteristics are linked with attachment, critical reflections, and algorithm awareness. Based on this, there seems to be a correlation between screen time and attachment, and age and critical reflections. I apply these findings to contextualise TikTok as a medium and discuss how the personalization on the For You page potentially affects users and society. This thesis contributes to existing knowledge by offering a user perspective to the technological features on TikTok.

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1.0 Introduction

TikTok is currently the fastest growing digital media platform in the world (Kaye et al., 2022, p. 8), and the use of an artificial intelligence algorithm to deliver content has been called the platforms "secret weapon" (Zhang & Liu, 2021). Personalized short videos are presented in an endless feed, containing anything from humour sketches to news updates (Anderson, 2020). The platform was released globally in 2018, and in 2021 it reached more than 1 billion monthly users (TikTok, 2021). In Norway, 58 percent of the population between the ages of 18 and 29 use TikTok daily (Ipsos, 2023). With a growing user base, TikTok has the power to spread information and trends at a high speed.

In the beginning of 2023, making candle holders from clay trended on TikTok and resulted in Norwegian hobby stores selling out (Tvedt, 2023). Similarly, a candy store in Oslo trended on TikTok and got visitors traveling from other cities (Møllerløkken, 2023). On a more serious note, the algorithm can lead young users down rabbit holes with harmful content, such as personalizing the feed to contain videos about weight loss and workout regimes (Bjørke et al., 2022). Further, a tide pod challenge encouraged people to eat laundry detergent (Hathaway, 2021), and a blackout challenge inspired users to purposely faint by restricting their breathing. As a result, 7 children lost their lives (Clark, 2022; Holohan, 2021). These examples indicate TikTok's power to influence and makes it relevant to understand users of the platform in order to contextualise TikTok as a medium in society.

This thesis explores TikTok from a user perspective to look at how young adults in Norway reflect around their use of the platform. Digital media platforms have an increasing role in young adults' lives (Twenge et al., 2019, p. 342), and with TikTok's gaining popularity it is becoming a platform that affect people's lives (Kahil & Alobidyeen, 2021). The algorithm quickly learns the users' individual preferences by analysing their behaviour on the platform and create a personalized For You page (Fan & Hemans, 2022, p. 41). This way of using artificial intelligence to show content has been described as an effective recipe for creating addicted users (Fan & Hemans, 2022, p. 41).

For the past decade, digital platforms have gradually become a part of people's everyday lives and changed the conditions of interactions in society (Dijck & Poell, 2013). The era of personalization on the internet started in 2009 when Google introduced a personalization of their search engine based on signals from the users' computers (Pariser, 2011). Since then, cookies have tracked personal characteristics from users and utilized the information to create

suitable experiences and ads online (Pariser, 2011). From a historical perspective, newspapers have always been affected by the editor's point of view, but the readers chose to see the world through this specific filter. With the personalization online users do not have a choice, the personalization comes to them, and it is almost impossible to avoid (Pariser, 2011). The personalization of platforms has developed from adapting to the general user, to being tailored to each individual user (Zhang & Liu, 2021). Moving forward to the global release of TikTok in 2018, it is this individual personalization that shapes the platform (Klug et al., 2021, p. 84).

As the use of TikTok has been debated, it is important to recognise that the platform symbolises a new trend within digital platforms. In the context of current debates about TikTok in Norway (see for example Haakerud, 2023; Regjeringen, 2023; Rønning, 2023), the platform might be banned during the next year. The current digital media landscape is moving rapidly (Anderson, 2020). Both the debate around TikTok and the technical features within the platform have changed during this project. Although the context TikTok operates within is changing, it was not the first short-video platform on the market, and it will most likely not be the last. In a changing landscape it is important to recognise that research done on the current platform can be applied to understand the next (Anderson, 2020). TikTok's design with the algorithmic personalized For You page and an endless scrolling video feed is already being adapted by competing platforms such as Facebook, YouTube, Instagram, Snapchat and Spotify (Murray, 2023). This shows that the application of algorithms that was introduced by TikTok will likely continue into the future regardless of TikTok's existence. Therefore, TikTok is an example of a platform with personally adapted content in a short-video format, and I argue that this thesis is also relevant in the context of other platforms with similar use of artificial intelligence algorithms.

1.1 A gap in current research

Despite TikTok's popularity and growing user base, there has been little academic research targeting the platform (Bhandari & Bimo, 2020; Montag et al., 2021). In the following I will give a brief overview of the state of relevant research and locate the thesis in a wider field of studies looking at TikTok. Current research tends to focus on technological and psychological aspects, where this thesis will contribute with a sociological perspective.

From a technology perspective, studies have targeted TikTok and the platforms new way of using algorithms to present content. Bhandari and Bimo (2020) did a study of the

technological perspectives of TikTok and found that the design-features on TikTok creates an "algorithmized self", as TikTok shows users a reflection of their own interests on the For You page. Further, Boeker and Urman (2022) used a web-based bot to mimic users on TikTok and found that the algorithm personalizes content on the For You page rapidly as the users begin scrolling. Klug et al. (2021) researched assumptions about the algorithm from a perspective of content creation, both by interviewing American users and analysing trending videos. They found that video engagement and posting time where elements that could affect if a video was shown on For You page, and that users' assumptions of trending hashtags helping to get a viral video was false.

The For You page shows short-video content, and Chen et al. (2022) conducted an eye-tracking experiment comparing addicted and non-addicted Chinese users of short-video platforms to look at how the content affected their attention. They found signs of addicted users having more difficulties of maintaining attention. Addiction to short-video content has also been researched by Zhang et al. (2019) through analysing questionnaires with Chinese respondents. They viewed addiction in relation to attachment styles and found that the technical design on TikTok enhanced users' attachment, especially entertainment and personalization.

With the popularity of TikTok comes a growing sociopolitical implication, which has been researched by Bandy and Diakopoulos (2020). They analysed call-to-action videos on TikTok in relation to a re-election rally for the former United States president and found that the algorithm on TikTok can influence collective action by increasing visibility of some videos. In the study, this was explained as possible because Tiktok does not require social ties to spread videos. Political communication on TikTok has also been researched by Serrano et al. (2020). In an American context they analysed videos with political hashtags and found that political content is an important aspect in the TikTok ecosystem. Further, they pointed at the algorithm as central for shaping political interactions and creating user communities, which makes TikTok different from social media platforms such as Facebook, Twitter and Instagram.

Looking at TikTok as a social media platform has been prevalent in research. Vaterlaus and Winter (2021) viewed users' motivations, experiences and perceptions related to TikTok in a perspective of social media uses and gratifications. Based on an online survey with young adults in the United States, where 52% of the participants used TikTok, they found that TikTok was perceived as entertainment to pass time. The participants also defined negative

aspects such as cyberbullying and harmful comments. In a Norwegian context, social media has been researched by the Norwegian Institute of Public Health (see Hjetland et al., 2021; Lysestøen et al., 2021) and the Norwegian Media Authority (2022a). In these studies, TikTok is viewed in a collective term of social media and has not been researched separate as a platform. Similarly, Norwegian media scholars Aalen and Iversen (2021) wrote a book about social media where they included TikTok, but it was discussed in a collective term with Facebook, Instagram, Twitter and Snapchat.

I have presented different approaches previous research has applied to look at TikTok, however it is relevant to mention than none of these are sociological. There is sociological research with different perspectives on social media (see for example Hill et al., 2018; Kidd & Mclntosh, 2016; Murthy, 2012), but I have not been able to find sociological research about TikTok.

Within the existing research about TikTok, there is a need to understand how young adults use the platform and especially the For You page that makes TikTok different from traditional social media. In previous research, TikTok has often been placed in a collective term of social media. However, as illustrated by research looking at TikTok's technical design, the platform is different from social media networks. In this thesis I will therefore investigate TikTok as an entertainment platform, with focus on the personalization on the For You page. As TikTok is a relatively new platform and there is limited previous research on the topic, this thesis takes an explorative approach to get a better understanding of aspects concerning TikTok.

TikTok is a global platform with users from all over the world, and most research has been conducted in a Chinese or American context. This thesis offers both a different methodological perspective and a different context to understand TikTok. Young adults' use of TikTok in Norway is interesting as 58 percent in the age group 18 to 29 use TikTok daily, and 30 percent of the population above 18 years old has a profile on the platform (Ipsos, 2023). During the pandemic year of 2020 there was an increase of 248,7 percent in Norwegian users. This was the highest increase globally, in comparison Russia was second on the list with 140,9 percent increase in TikTok users during this period (Statista, 2020). In addition, this thesis offers a new framework in research of TikTok as it views the platform from a sociological perspective.

1.2 Linking technology and sociology

The digital revolution has transformed almost every aspect of how humans live, work, and spend their leisure time, and to understand and explain changes occurring in society is the task of sociology (Giddens & Sutton, 2017). Professor Neil Sewlyn (2019) focuses his research on the place of digital media in everyday life and presents "digital sociology" as a way to explore the role of technology in different settings. Living in a digital age implies new ways of looking at social interactions and structures of power, where the potential influence of digital media is important to consider (Sewlyn, 2019). Therefore, it is necessary to research new and prevalent technologies such as TikTok from a sociological perspective. From previous research one can see that technological perspectives describes the function of the algorithm (Bhandari & Bimo, 2020; Boeker & Urman, 2022), but we lack an understanding of how this algorithm affects users and society. This is where the sociological perspectives of TikTok becomes important. We live in a digital society, and sociology can help us understand the implications of technology.

1.3 Research question

As this thesis has an explorative approach to a topic with limited previous researched, I wanted to formulate an open research question. With available knowledge on the technological aspects of TikTok, I wanted to add a sociological aspect to the platform through a user perspective. Therefore, I formulated the following research question;

- *How do young adults reflect around and perceive themselves as users of the platform TikTok?*

In order to narrow down the research question, the thesis has three sub-questions. With the explorative design I wanted the participants stories to shape the focus of the thesis, and therefore the sub-questions were constructed after the interviews as a framework for the analysis and discussion. The first question focuses on similarities in the way young adults describe their use of TikTok in their everyday life. As part of this, I especially want to look at their relation to the For You page and how their description of this relation shows an attachment to the platform. The second sub-question focuses on the differences in ways young adults show critical thinking and attachment related to their age and screen time statistics. With this question I wish to address how the participants differ in their use of TikTok, and how the differences may correlate to other factors. The third sub-question apply the

reflections of the users to look at TikTok as a medium. This question is included to discuss what the users view of the platform implies to TikTok's role in society. The sub-questions are as follows;

- *In what ways do young adults describe their relation to TikTok and especially the For You page?*
- *What is the relation between critical thinking, attachment, age, and screen time in the way young adults reflect around their use of TikTok?*
- *How do the users' reflections contextualise TikTok as a medium?*

In order to explore these questions, chapter 2 is a description of previous research and relevant perspectives. Here I explain TikTok as an entertainment platform based on an algorithm and look at the concept of critical media understanding. Chapter 3 contains theoretical perspectives as a framework for the thesis. This includes attachment theory in an extended digital perspective and the theory of "the Medium is the Message". In chapter 4, I describe the methodological approach I have chosen to look at the research question. Thereafter, the two following chapter is the analysis. Chapter 5 analyse similarities in how the users describe their relation to TikTok based on attachment, while chapter 6 looks at the differences between the participants reflections and how personal characteristics relate to the differences. In chapter 7, the findings are discussed in relation to the theoretical framework, the process in the project, and further research. Finally, I give my concluding remarks in chapter 8.

2.0 TikTok: A personalized algorithm-driven For You page

This chapter presents a review of literature and perspectives relevant to explore TikTok and the platforms users. First, TikTok's design and technical features are described to give an insight to how the platform functions. Within this description, TikTok is defined as an entertainment platform. Further, I review previous research regarding the artificial intelligence algorithm that shapes TikTok's For You page. The chapter is rounded off with The Norwegian Media Authority's concept of critical media understanding, which highlights how users can be critical to the information on their For You page.

2.1 What is TikTok?

The Chinese short-video platform TikTok was released to global markets in 2018 and has since then obtained more than 1 billion monthly users (TikTok, 2021). Through the platform, a variety of videos are spread globally (Fan & Hemans, 2022). The videos are user-generated and can be anything from trending dances, funny sketches, and celebrity content to social activism, educational content, news, and people talking to the camera from their bedroom (Anderson, 2020; Klug et al., 2021). In the short-video format, videos vary from 2 seconds to 3 minutes. As the average user spends 52 minutes on TikTok every day, they can watch more than 200 videos within that timeframe (Fan & Hemans, 2022, p. 41). The flow of videos never ends, and the users never know what the next video will contain. In this way, the For You page shows an endless flow of videos and assertively answers users' question of "what should I watch?" (Herrman, 2019).

The For You page is the default home page when users open TikTok, and from the home page they have multiple options to view content (Figure 1). At the top of the screen, users can choose to watch the Following page, which consists of content from creators they follow (Anderson, 2020). In the top right corner, there is a search function where users can find published videos within the topics they are interested in. As Figure 1 shows, the bottom of the screen has a display with options to view the home page, a separate page with friends' videos, a "+" button to make and publish videos, a chat function where they can communicate with friends, and a button that takes them to their own profile. On their profile, users can view who they follow, the videos they have liked and saved, and their own videos if they have published content (Anderson, 2020). The For You page is the feature the participants in this project use the most, and therefore it will be the focus in this thesis.
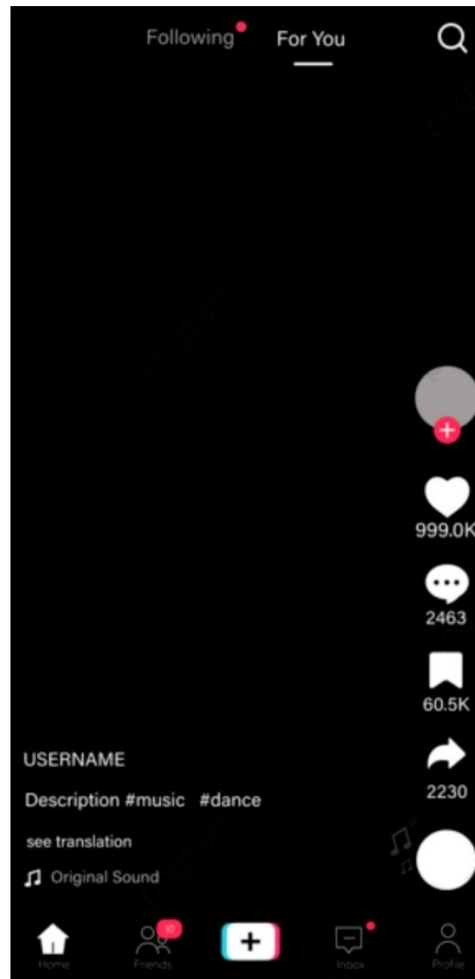
Figure 1: TikTok's For You page. Illustration by ABarts (n.d.)

When users are scrolling on the For You page the whole screen is covered by one video, and they must swipe up to view the next (Anderson, 2020). On the right side of the screen, there are multiple options to interact with the content. From the top, the profile picture of the current video's creator is visible and a red "+" sign allows the user to follow the creator. By pressing the profile picture or swiping to the left, the user will get to the creator's profile. Underneath is the like feature shaped as a heart, and the number of likes is visible. Similarly, the number of comments shows underneath the chat bubble that illustrates the comment section. Next is the save option, which allows users to save videos to their profile. The arrow allows users to share the video with friends on TikTok or through other platforms. Finally, the white circle is where the sound used in the video is visible. Users can press this button to view other videos published with the same sound or use the sound themselves (Anderson, 2020).

TikTok's For You page shows short-video content repeating on a loop, such as previously seen on Vine and Musical.ly (Anderson, 2020). However, the content on TikTok differs as it

is more a creative media than a social media (Bresnick, 2019). This perception aligns with TikTok's own description of their mission "to inspire creativity and bring joy" (TikTok, n.d.). They describe their platform as a place users come to be entertained through learning, laughing or discovering something new (TikTok, 2021). Expanding on this, TikTok label themselves as a global entertainment platform (TikTok, 2022).

In this thesis TikTok is explored as an entertainment platform, both because that is how the company define themselves and because the design of the For You page makes it different from traditional social media. TikTok differ from other social media platforms as it does not depend on social ties determined by the users such as Facebook, Snapchat, Twitter, or Instagram (Bandy & Diakopoulos, 2020). Instead, TikTok has a more proactive approach where the platform shows users videos and apply their reactions to determine what content they would like. Even if a user does not follow anyone on the platform, they will be shown a personalized recommendation of videos on their For You page (Bandy & Diakopoulos, 2020). At the same time, a creator with no previous followers can quickly gain an audience (Anderson, 2020). Tiktok has similarities with social media platforms as content is user-generated and often based on creators sharing their lives. However, the design with the algorithmic For You page makes it relevant to distinguish TikTok from traditional social media. Social connections are an important part of social media, but the For You page is designed for users to interact with videos rather than with each other (Klug et al., 2021). This indicates that the main feature of TikTok is the entertainment users view on their For You page.

TikTok can be defined as a company, an app, a tool, or a platform. This thesis builds on the definition coined by Kaye et al. (2022) of TikTok as a platform. In their definition they describe a platform as stage creators can use to share their content. It is an infrastructure that facilitates influence, durability, and visibility. Looking at TikTok as a platform includes the interplay between technical features and social practices. This mutual shaping that occurs between the digital platform and the users can further be described as platformization. With platformization, it becomes possible to view the platform in a social context and address how the platform can affect the social setting it is a part of (Kaye et al., 2022, p. 4-6).

A social context that TikTok can be viewed in connection with is the COVID-19 pandemic. On a global level the platform peaked in downloads during the outbreak of the pandemic in 2020, which can be seen as a result of lockdowns all over the world (Kaye et al, 2022, p. 8). When the pandemic began in the first quarter of 2020, TikTok gained 315 million downloads

worldwide, which is the most downloads any platform has had in a quarter (Wallaroo, 2023). In a time where schools closed and home offices became the new normal, TikTok has been described as one of the world's largest distractions (Kaye et al, 2022, p. 8). The platform became a way to fulfil social needs with virtual interactions (Feldkamp, 2021). Put in perspective, the pandemic can be viewed as a defining moment for the current popularity of the platform in terms of its user base (Kaye et al, 2022, p. 9).

2.1.1 The artificial intelligence algorithm and filter bubbles

In Fan and Hemans' (2022) review of how TikTok became as popular and successful as it is today, they describe the use of artificial intelligence technology as an important factor. Through artificial intelligence, TikTok's algorithm analyse users' individual preferences and adapt the content on their For You page to them specifically (Fan & Hemans, 2022, p. 41). The algorithm is based both on users' behaviour on the platform and information from their phone such as their calendar, contact list and location (Kjøllesdal, 2023; Touma, 2022). TikTok collect this information through cookies (TikTok, 2020), and applies it to give the users a feed that interests them and keeps them on the platform for a longer time (Kjøllesdal, 2023).

Bhandari and Bimo (2020) argue the boundaries between user and platform get blurred by the algorithm presenting users' interest, personality, and identity back to them. In their study they examined TikTok's own description of the platform in addition to a technical walkthrough and found that TikTok guides users in a different way than traditional social network sites. What has previously been discussed as a "networked self" on social media, was by them defined as an "algorithmized self" on TikTok, as their research found that users are repeatedly engaging with themself through the algorithm rather than with other users. This research highlights the effect of the algorithm shaping content on TikTok, as users are placed in an interaction with themselves on the For You page.

This personalization on TikTok's For You page was researched by Boeker and Urman (2022) in an empirical study where they mimicked realistic user behaviour through a virtual agent. They found that feeds become more and more different as the active user interacts with it through liking, following and watching certain videos for a longer period of time, and they suggest both commenting and sharing videos can affect this as well. (Boeker & Urman, 2022,

p. 2304). Based on their research, Boeker and Urman conclude with the personalizing factors on TikTok leading to filter bubbles.

The term filter bubble was introduced by Eli Pariser in 2011 and describes the way personalization on the internet creates a unique universe of information for each user. A filter bubble has three main dynamics; it is personal, invisible, and users do not choose to enter it (Pariser, 2011). Because of these dynamics, users can easily believe that what they are seeing is unbiased, objective and true information. As the experiences are not shared, Pariser describes how the personal aspect of the bubble pulls us apart. Digital platforms act as a lens users view the world through, and with these features there are lots of ways for the platforms to skew users' perception of the world (Pariser, 2011).

Providing personalized digital content by using algorithms has become the new normal. Shin et al. (2022) argues users need algorithm awareness to protect their privacy and understand the algorithmic processes. They point out that algorithms can affect how users make everyday decisions, and therefore it is important that users are aware of how the algorithm shapes their content. Further, Bandy and Diakopoulos (2020) did a quantitative analysis of videos on TikTok regarding a call for collective action in the United States. They looked at the power algorithmic platforms have in society and found that the algorithms on TikTok likely had provided visibility to the call for collective action. Together with the other mentioned perspectives, this indicates that algorithms on TikTok can create personal bubbles with the potential to influence users.

Another effect of the algorithm is the potential to make users addicted to TikTok. The way the platform applies artificial intelligence to create the For You page has been described as an effective recipe to create addicted users (Fan & Hemans, 2022, p. 41). Su et al. (2021) studied brain scans of TikTok users in China and found that watching personalized videos activated areas in the brain that are involved in addiction. Their study also indicated that some users had issues with controlling when to stop watching videos. This indicates that TikTok's design can make users addicted to scrolling on the For You page.

Despite the algorithm on TikTok being researched and investigated in multiple cases, the exact innerworkings of the algorithm is not publicly known (Boeker & Urman, 2022, p. 2298). However, the European Union's Digital Services Act will force TikTok to become more transparent when it begins regulating the large digital platforms from August 2023 (The Norwegian Media Authority, 2023). Hopefully this will give researchers and users a better

insight to how TikTok uses artificial intelligence. As for now, this thesis is based on the available knowledge about the algorithm on TikTok.

2.2 Critical media understanding

With the increasing amount of information that is available through digital platforms such as TikTok, problems like false information, credibility, factual errors, and politically motivated fake news arises (The Norwegian Media Authority, 2021a). The Norwegian Media Authority [Medietilsynet] has developed a concept of critical media understanding, which is defined as skills and knowledge people need to make good and informed choices regarding the media content they consume, create or share. The concept implies to evaluate quality, relevance, and credibility of information in media. The Norwegian Media Authority (2021a) describes this as especially important in relation to algorithmic content, as critical evaluation of sources is not inherent to algorithms.

During the Norwegian elections in 2021 the "stop, think, check" campaign was created as an initiative to prevent undesirable influence on the election (The Norwegian Media Authority, 2021b). The initiative presented the three steps to reflect on information's credibility online. "Stop" entailed to examine if the post seems unlikely or evoke strong feelings. "Think" implies to evaluate if the message is only presenting one side of a matter and if the photo or video is trustworthy. "Check" means to see if the story is published elsewhere and see who is behind the story. These three steps are good tools to execute critical media understanding.

When consuming information related to conflicts or major events it is especially important to be critical. In connection with the war in Ukraine, The Norwegian Media Authority (2022b) conducted a survey regarding media habits and fake news. Among 1000 respondents, 24,3 percent reported social media, which includes TikTok, as one of their most important sources for news about the war. Further, they were asked where they had found fake news on the topic, and 56,4 percent reported seeing misinformation on social media. These numbers indicate that some users do rely on platforms such as TikTok for news, at the same time as many reports finding fake news on these platforms.

3.0 Theory - Attachment to TikTok as a medium

In the search of theory that highlight the findings in this project, I decided upon a socio-psychological approach. The psychological aspect offers an understanding of the participants reflections of their relation to TikTok, while the sociological aspect gives context to the implications of this relation. In the beginning of this chapter, I present attachment theory as a framework to look at the participants' relation to TikTok. Starting from attachment theory's origin in John Bowlby's psychological work, I further elaborate on other's continued development of the theory to look at attachment in a society characterized by technology. Finally, I present Marshall McLuhan's perspectives of "The Medium is the Message", as a framework to view TikTok in the context of society.

3.1 Attachment theory

Attachment theory describes the way humans create strong affectional bonds to other individuals (Bowlby, 1977). The theory originates from John Bowlby's description of the emotional bond between a child and its caregiver (Bowlby, 1971, p. 221). Bowlby describes this bond as the foundation for healthy development, and as an inherent biological response from the child to secure basic human needs (Flaherty & Sadler, 2011, p. 115). In order to obtain a secure bond with its caregiver the child executes attachment behaviour, for example smiling or vocalization. The attachment behaviour creates the attachment bond, and it is not a reciprocal relationship between the child and the caregiver, but it is the child's impression of the relationship with its caregiver (Flaherty & Sadler, 2011, p. 115). Although the theory is based on the bond between a child and its caregiver, Bowlby describes attachment behaviour as any behaviour that involves a person maintaining closeness to another individual who is viewed as better able to cope with the world (Bowlby, 1988, p. 30).

For a person to have an attachment figure available gives a strong and prevalent feeling of security, which encourages the person to value and continue the relationship (Bowlby, 1988, p. 30). With these attachment bonds the relationship is long-term, and can influence the persons attachment through their life (Cherry, 2019). The attachment figure can provide security when the person faces challenges in their everyday life, experience stress, or encounter threats (Smith, 2017, p. 141). Having this feeling of security helps build a secure base which the person can explore the world from (Flaherty & Sadler, 2011, p. 114).

Detachment can be viewed as the opposite of attachment. The ideal balance between attachment and detachment is described by Zimberoff and Hartman (2002) as a synthesis where one is liberated both from the fear of abandonment and from the fear of engulfment. This indicates that in an ideal situation a person is neither completely attached nor completely detached. Being able to practise detachment can be viewed as the basis of achieving autonomy (Holmes, 1997, p. 231). If a person is detached it indicates that they are free from the fear of being absorbed or captivated by the object or individual they are attached to (Zimberoff & Hartman, 2002, p. 3).

In this thesis I will use Bowlby's attachment theory to highlight the attachment a person can get to another individual, and in an extended understanding to an object. Research has shown that well-functioning adults can develop attachment to objects (Keefer et al., 2012). This aspect will further be used in a broadened understanding of attachment in a digital perspective.

3.1.1 Attachment in a digital perspective

With the increasing digitalization of society, attachment relations are developing between users and their technical objects. Based on Bowlby's attachment theory and other researchers' extension of the theory to look at attachment to objects, Meschtscherjakov et al. (2014) defines the term mobile attachment. The definition is as follows; "Mobile attachment is a cognitive and emotional target-specific bond connecting a person's self and a mobile phone that is dynamic over time and varies in strength." (Meschtscherjakov et al., 2014, p. 2319).

Their definition of mobile attachment has five implications. The first one is that the attachment object includes all the technical aspects of it, for the mobile phone that is both the device itself (hardware) and the program within it (software). Secondly, it implies a relation between the object and the user's self, where the mobile phone is linked to the self. Thirdly, the definition suggests that the object evokes both emotional and cognitive responses, where the user experience positive feeling and thoughts. Fourthly, it implies that the attachment varies in strength, depending on the degree of the relation between the mobile and the self. Fifthly, the attachment evolves over time and is dynamic, where repeated interactions develop the relation through for example personalization (Meschtscherjakov et al., 2014, p. 2319).

This definition of mobile attachment is created from a user experience perspective. From this perspective, it is established that users can develop emotional attachment to objects, and that

the relation is strengthened when the object is included in the users' everyday life (Meschtscherjakov et al., 2014, p. 2317). It is further highlighted that identification with the object and personalization of the technical aspects are important in the formation of emotional attachment. When mobile attachment is established, Meschtscherjakov et al. present consequences of this relation which can act as signs of attachment. These include users spending resources such as time and energy on the object. In addition, it includes the user bringing it with them wherever they go, and experiencing distress when they are separated from the object (Meschtscherjakov et al., 2014, p. 2324).

A more recent perspective to digital attachment is presented by Sitnik-Warchulska et al. (2023) as E-attachment. The introduction of technology into society has permanently changed humans' way of interacting and functioning, which further affects how attachment bonds are shaped (Sitnik-Warchulska et al., 2023, p.1). Using the possibilities technology offers has become the new norm, and digital realities are becoming more intertwined with the real world. In their book about E-attachment and online communication Sitnik-Warchulska et al. (2023) look at people's relationships with technology. In this context, E-attachment is defined as relations created online, both to other individuals and to objects in the virtual world. Research has shown that attachment can be shaped equally as strong in the virtual world as in the real world (Sitnik-Warchulska et al., 2023, p. 31).

In the virtual world individuals can shape attachment to digital objects, and personalization has shown to be one of the factors that can increase attachment to digital objects (Koles & Nadgy, 2021, as cited in Sitnik-Warchulska et al., 2023, p. 32). From this perspective, the personalization allows users to locate themselves in a virtual community as the digital objects are created as elements they can identify with. Then the digital objects can become a self-extension, where the user can perceive their own self as part of something extended outside of their body. Koles and Nadgy found that over time digital objects can further become part of experiences individuals use to cope with the real world (Sitnik-Warchulska et al., 2023, p. 32). Strong attachment bonds such as these findings show the potential of E-attachment, which further indicates why this is a relevant development of attachment theory.

E-attachment was developed as a response to changes in society that affect humans. Digitalization has a prominent role in society and the COVID-19 pandemic has further strengthened the entering of humans into the virtual world (Sitnik-Warchulska et al., 2023, p. 12). During the pandemic a lot of time was spent at home with limited real-world relationships. As a result, more time was spent in front of a screen, and technologies became

important to satisfy the natural need of contact with others and experiencing belonging (Sitnik-Warchulska et al., 2023, p. 12). The presented perspectives on digital attachment can further be applied when looking at attachment to TikTok.

3.1.2 TikTok attachment

The way attachment theory has been applied in relation to TikTok previously is transferable to this thesis even though it has been used in the context of addiction to the platform. Zhang et al. (2019) used attachment perspectives to explore users addicted to TikTok's short-video format. In this study, attachment to TikTok was perceived as site attachment, which emphasises users' emotional bond to the platform's functions (Zhang et al., 2019, p. 3-4). The study found that in relation to TikTok, the technical features of personalization and entertainment increased site attachment. In addition, trust has also been found as important in relation to users site attachment (Kim et al., 2016, p. 922).

Combining the three perspectives of mobile attachment, E-attachment, and site attachment provides a theoretical framework in which attachment to TikTok can be studied. Linking these perspectives indicate that technical aspects are important for attachment to digital objects (Meschtscherjakov et al., 2014). In the case of TikTok, both entertainment and personalization functions as characteristic technical features (Zhang et al., 2019). In the virtual world, personalization is a feature that can enhance users feeling of a digital object as an extension of themselves (Sitnik-Warchulska et al., 2023), and this relation is an important part of shaping an emotional bond (Meschtscherjakov et al., 2014).

From the combination of the perspectives, there are multiple characteristics that can be viewed as signs of an attachment bond between users and TikTok. If users spend much time on the platform and include it in their activities during the day, it can indicate attachment. This can further mean that they feel discomfort when they are separated from TikTok (Meschtscherjakov et al., 2014). In addition, the attachment bond can imply a relation where the platform is linked to the user's self (Meschtscherjakov et al., 2014). Having an attachment to TikTok can mean that it is used to cope with the real world (Sitnik-Warchulska et al., 2023), and it can give users positive thoughts and feelings (Meschtscherjakov et al., 2014). In addition, if users are attached to TikTok that can also mean they trust the platform (Kim et al., 2016). Including perspectives of detachment to this, if users are free to be independent from the platform that could be a sign of them not being attached (Zimberoff & Hartman, 2002).

Finally, the attachment to TikTok could evolve over time and vary in strength (Meschtscherjakov et al., 2014).

3.2 The Medium is the Message

The medium a society utilizes to send and receive information is more important than the information itself. That is the essence of the phrase "The Medium is the Message", which was first used by Marshall McLuhan in his book from 1964 *"Understanding Media – The extensions of man"*. In this book, McLuhan describes how society is changing with a technological simulation of consciousness and asks if the change is as good as advertisers claim it to be (McLuhan, 1964, p.4). In his historical perspective, the medium has changed from the spoken word to the written word, and all the way to radio and television. McLuhan predicted a global village more interconnected than the television, where time and space no longer exist as limits for communication. With the impact of the internet, his then revolutionary predictions have become reality (Logan, 2010).

In the phrase "The Medium is the Message", the medium can be defined as anything from the written language to an airplane (McLuhan, 1964, p. 8). It is a tool, media, or technology that performs a task of humans, and further acts as an extension of humans. In the example of the airplane, it accelerated the pace of transportation regardless of how it was used. How a technology is used can be viewed as the content, and the content of a medium is always another medium. A medium alone is simply a medium without a message. For example, speech is the content of written language, and the written language is the content of print (McLuhan, 1964, p. 8). McLuhan gives a visual explanation to this connection; "The "content" of a medium is like the juicy piece of meat carried by the burglar to distract the watchdog of the mind" (McLuhan, 1964, p. 19). According to this, it is the content of a medium that gives it a strong and intense effect.

Further, the message of a technology is the change of a pattern, scale or pace that it introduces to society. It is not the task the technology is performing, but the way the technology alters our relation to one another and ourselves that is the message of the technology (McLuhan, 1964, p. 7). A quote from McLuhan summarizes this effect; "We shape our tools, and thereafter, our tools shape us." (Culkin, 1967, p.70). In this perspective, a tool or technology is developed as an extension of humans' senses, and further the extension begins to interact back with humans' senses. The new technology then becomes a change in the environment

and creates a new balance of the senses (Culkin, 1967, p. 70). The change the technology leads to then becomes the message of that technology.

The perspectives presented by McLuhan come from a philosophical view on communication theory and can be criticised for its hint of technological determinism (Logan, 2010). With technological determinism, technology is regarded as the main reason for change in a society. A deterministic explanation of change in society can be criticised for being naïve or simplistic. Often, change is a result of complex interactions including other factors such as economic or political forces. Logan (2010, p. 22) defends McLuhan's perspectives and argue that the naïve stance to the relationship between technology and societal transformation is to assume that it is not prevalent. Considering this, "the Medium is the Message" can be a suitable framework to view the potential effects of a technology, but a more questionable framework to view all changes in society.

4.0 Methodology

The choice of method to conduct a project will likely influence the result of the project. In this chapter, I will describe the methodological choices I have made while working with the thesis. First, I describe the choice of an explorative approach with qualitative interviews as the method. Further, I explain how the interviews were conducted and how the data was analysed. Then, ethical considerations and my role as researcher will be addressed, before I end the chapter with methodological considerations.

4.1 Choice of method and approach

Research is a continually changing process (Brinkmann & Kvale, 2015, p. 126), which this project is an example of. TikTok has from the beginning been the topic of the thesis. However, the initial intent was to look at how networks on TikTok shape the way young adults obtain information. The plan was to conduct interviews looking at networks and relations within TikTok and use social network analysis to look at how users, content creators, and different topics are linked together. Based on social network approaches in previous research on other social media platforms such as Instagram, Facebook, and Twitter (see Catanese et al., 2011; Grandjean, 2016; Manikonda et al., 2014), it seemed necessary to understand TikTok from this perspective. A pretest of a semi-structured interview guide focusing on relations, networks, and connections on TikTok was conducted, but the result indicated that TikTok is different from the context of previous research on social media.

In the pretest, participants were not able to define a network on TikTok. They did not remember who created the videos they watched and could not describe how they communicated on the platform. Friends and acquaintances seemed to have an insignificant role in their use of TikTok. The insight gained from the pretest made me rethink my approach to understanding users of TikTok. It became clear to me that I could not research TikTok in a similar way as social media platforms. Based on these insights, an explorative approach to the topic was adapted. When looking at TikTok separated from traditional social media, research was scarce, which further supported the need for an explorative approach to understanding users of TikTok.

With the explorative approach the research question was formulated with an intention to investigate users' perspectives. Explorative research was chosen as it is suitable for open studies that seeks new information or new angles to a topic (Brinkmann & Kvale, 2015, p.

132). Further, qualitative interviews were considered suitable to understand the topic from the participants own perspectives and in the context of their daily lives (Brinkmann & Kvale, 2015, p. 27). The interview format gives opportunity for reflections, spontaneity, and elaboration (Ryen, 2002, p.15), which is necessary in an explorative study. The choice of a qualitative approach was motivated by the research questions need for in-depth information to construct an understanding of a new topic, compared to quantitative approaches that give a limited amount of insight to a larger number of cases (Ragin & Amoroso, 2019, p. 23). As the intention was to construct an understanding of a topic with limited previous research, an inductive process of letting the data shape the direction of the project was chosen (Brinkmann & Kvale, 2015, p. 224).

4.2 Interviews

The aim of conducting interviews was to obtain the conversation between the interviewer and the interviewee where knowledge can be constructed (Brinkmann & Kvale, 2015, p. 4). In this conversation, it is the role of the interviewer to bring out and follow up the interviewee's understandings and perspectives about the topic (Widerberg, 2001). The interview brings forward the participants subjective reflections regarding the topic and is appropriate to explore users experience of TikTok (Silvermann, 2021, p. 3). With this in mind, the interviews were conducted in an explorative way to be open for the participants reflections and perspectives. In this project, I had 8 interviews between December 2022 and February 2023. In order to stay true to the participants stories, all interviews were recorded.

4.2.1 Sample and recruitment

Sampling in qualitative studies is generally based on a non-probability approach, and the qualifications of the participants is decided depending on the topic (Ryen, 2002, p. 84). As there was limited previous knowledge available about users of TikTok, I did not wish to attempt a classification or description as criteria for participation. The only classification I did was that I wanted to interview users in the sense of people who watch TikTok, not content creators. It was not a limitation if the participants had published videos, but I did not wish to focus on the creation of content. Because of this, the main criteria for the sample was to use TikTok in their everyday life. Further, research has shown that the main users of TikTok are between 10 and 29 years old (Boeker & Urman, 2022). Due to the scope of the thesis and ethical considerations, I decided to interview participants above 18 years old. Therefore, the

sample criteria was people between 18 and 29 years old. It was a wish to have diversity within the age group, but that turned out to be dependent on the recruitment.

The recruitment process began with sharing a poster in relevant social media channels. The poster was designed to easily be shared, and with concrete information that was easy to read. I used the colours in the TikTok logo and an illustration of TikTok to get the attention of users (see Appendix 1). To begin with, I posted through my personal account in groups and forums on social media for people within the age group. This resulted in 4 participants reaching out. Getting more participants turned out to be difficult, and after a while friends and family offered to post in their social media channels. I chose this way of recruitment, as I saw it necessary to reach relevant participants. This resulted in 4 more participants reaching out, and I managed to get 8 participants in total. Even though 4 of the participants were recruited through network, it was with the condition that I did not personally know them. With this way of recruitment, the selection of the sample has been self-selection as they have chosen to participate (Tripepi et al., 2010).

A way of determining the size of the sample in a qualitative project is to get a saturation point where new interviews do not give new information (Ryen, 2002, p. 93). In this project, the information from the participants can be separated in two different categories; use of the platform, and personal reflections. They are similar in many of their perspectives of TikTok as a platform, but all 8 participants have also shown personal differences. Regarding the use of TikTok, it came to a point in the interviews where I did not get significant new insight. However, as every participant had different personal reflections, I realised it was not feasible to reach a saturation point in this category within the scope of this thesis.

In the recruitment process I did not have a criterion for geographical location except from within Norway, as users of TikTok can be located across the country. Further, as it is not relevant to the topic, the location of the participants will not be included. This choice was also made based on the difficulty to get participants. As a result, 5 interviews have been conducted digitally with video call through the University of Agder's platforms and 3 have been in physical locations. Before the digital interviews, I made sure that the participants were comfortable in their location and would not be interrupted. The physical interviews were held at public places in closed rooms to ensure privacy. With the topic being young adults in Norway, the interviews were in Norwegian.

4.2.2 Interview guide

The interviews were conducted with an explorative design, where I asked participants open questions and followed up on their responses to gain new insight (Brinkmann & Kvale, 2015, p. 132). However, I prepared a semi-structured interview guide with topics I wanted to ask all the participants (see Appendix 2). A research project is a long process where the different steps are interlinked (Ryen, 2002, p. 145). Therefore, the groundwork for the analysis began already when designing the interview guide (Widerberg, 2001). However, given that the codes were shaped after the interviews, it was important to obtain rich descriptions of all the topics the participants mentioned (Brinkmann & Kvale, 2015, p. 233). Further, it was important to have a guide that was open for the participants reflections. At the same time, I had topics I wanted to ask everyone about to get a general understanding of some aspects to TikTok.

I began the interviews with a non-scripted conversation to gain trust and make the participants feel comfortable in the situation (Brinkmann & Kvale, 2015, p. 154). Further, I had sent the participants information about the project prior to the interview (see Appendix 3), and I asked in the beginning if they had any questions regarding the project. At this point, I asked if I could begin the recording, and then started using the questions in the interview guide. The guide began with specific questions regarding the participants and their general use of their phone. Then I openly asked if they could tell me about their use of TikTok and included that they could open the platform if they thought it could help them explain. From this point, the interview was guided by the participants' stories. I had topics I wanted to inquire about, but I included these during the conversation instead of asking them in the order I had written them. Because of this, every interview was different.

The topics I included in the interview guide was based on previous research and literature about social media, young adults on digital platforms, and the technical design of TikTok. The topics surrounded the participants use of the platform and critical reflections. Based on knowledge about TikTok's design, I asked how they used the different features and pages, and especially the For You page. I inquired about critical reflections and the algorithm from different angles, such as how they talk about the platform with friends and their own opinions of the topics. As an example, they were asked to reflect on information about the war between Russia and Ukraine as it was prominent in the period the interviews were conducted. Further, I asked how much time they assumed they spent on their phone in the beginning of the interview, and then we looked at their screen time statistics at the end. The pandemic, political information, social engagement, and influence from the videos were also included. Even

though these were the topics I knew of prior to the interviews, the participants brought forward new and interesting insights. All the interviews were around 1 hour in length, varying from 45 minutes to 1 hour and 10 minutes.

4.2.3 The participants

The sample of participants consist of 4 women and 4 men, varying from 19 to 26 years old. They have all reported themselves as users of TikTok, and their screen time vary from 21 minutes to 3 hours and 20 minutes on the platform on a daily average. Within the sample, 5 participants are students and 3 have full time jobs. None of them are actively posting content on TikTok, only 2 participants have posted a few videos. All the participants are mainly viewing content when they use the platform. Half of them define themselves as socially engaged [samfunnsengasjert]. As I want to include the age and gender of the participants, no other information that can make them recognisable will be included. This choice is an ethical consideration, and it is done to exclude other factors that are not viewed as relevant to the topic.

Fictive name	Age	Total screentime (average per day)	Screentime on TikTok (average per day)	Socially engaged
Hannah	19	3 hours, 4 minutes	47 minutes	No
Amanda	19	6 hours, 49 minutes	1 hour, 44 minutes	No
Thomas	20	Estimate: 5-7 hours*	Estimate: 3 hours*	Yes
Charlotte	21	7 hours, 17 minutes	1 hour, 9 minutes	Yes
Jonathan	23	5 hours, 27 minutes	3 hours, 20 minutes	No
Benjamin	23	3 hours, 37 minutes	1 hour, 2 minutes	Yes
Lukas	24	6 hours, 57 minutes	21 minutes	No
Melissa	26	3 hours, 50 minutes	1 hour, 1 minute	Yes

Table 1: Overview of participants.

*Thomas did not have a screen time function on his phone, the numbers are his estimates.

Table 1 shows an overview of the participants. Included in the table is information that is most relevant to the thesis. The participants are sorted by age, from youngest to oldest. Screen time is shown by their daily averages, both total screen time on the phone and on TikTok. Further, it includes if they define themselves as socially engaged. All the participants have been given fictive names.

4.3 Analytical approach

Given the inductive design, the analysis of the data was where the direction of the thesis was shaped. The explorative interviews gave insight into multiple aspects concerning users of TikTok. However, it is important to simplify and gather meaning from the data, which can be a challenging process (Thagaard, 2013). The data from the interviews were analysed through transcription, coding, and both a thematic and a comparative analysis.

4.3.1 Transcription and coding

When making a text based on a conversation, some elements are doomed to be lost (Nilssen, 2012). In the transcription I have focused on the words and excluded elements such as body language and hesitation. This delimitation was concluded as necessary with over half the interviews being held digitally. In the digital interviews, insight to non-verbal communication was more difficult than in the physical interviews. Further, it was the stories and reflections the participants showed that was interesting to the topic, and therefore I did not emphasize non-verbal communication. However, I wrote notes after every interview to remember the scene and the impression the interviews gave me. In the Norwegian language there are multiple dialects, and as the participants location was going to be anonymous, I transcribed all the interviews in the standard written language "bokmål". Even though some words were altered, I wrote down exactly what the participants had said. In addition, I anonymized names, places, and other information that could identify the participants.

Further, it was important to me that I transcribed the interviews manually. This gave me a thorough overview of the data that I used to create the codes. The result was over 100 pages of transcriptions. I spent time going through the transcriptions to get an overview of the main findings. With the research question in mind, I went through the data looking at how the participants reflected around their relation to TikTok. This was how I found attachment as a fruitful framework for analysis. Further, I found that they reflected differently around critical

aspects and the algorithm. In addition, their descriptions of how they used TikTok and the changes in use related to the pandemic was interesting.

In qualitative research, codes can be shaped from the collected data (Tjora, 2017, p. 198). However, the codes were also influenced by attachment theory and the concept of critical media understanding that I found relevant while processing the material. Here it becomes visible that research entails both inductive and deductive aspects in an interplay that Ragin and Amoroso (2019, p. 44) calls retroduction. With that in mind, I created 4 codes based on the most interesting and prominent aspects from the interviews, with perspectives from theory and literature as a framework to define the content of the codes. The software program NVivo was used in the coding, as a digital tool can be helpful when processing large amounts of data (Brinkmann & Kvale, 2015, p. 226). With the explorative and empirically driven design, NVivo was especially useful to easily create an overview and move between data and theory to shape the codes.

The code *attachment* was based on Bowlby's theory and further adaptations of attachment in a digital context. This included participants reflections around using TikTok to fill time, feeling connected to the algorithm, and being influenced by videos. *Use of TikTok* was a code including how they used it during the day, if they remembered what they had watched, and the features on TikTok. Within the code *pandemic*, I included the participants reflections around their use of TikTok before, during, and after the pandemic. The code *related to age and person* highlighted differences between the participants, especially related to the concept of critical media understanding. This included screen time, topics on the For You page, social engagement, and reflections around the platform, war, food, and workout content.

4.3.2 Thematic and comparative analyses

Analysing data is not a linear process, it is interactive, creative, and chaotic (Ryen, 2002, p. 145). I envisioned a thematic analysis while processing the data, and therefore the journey from transcription to presenting findings is conducted inspired by the thematic analysis. This way of analysing data is suitable when theory is not shaping the analysis, but it is the prominent topics in the data that guide the way (Johannessen et al., 2018, p. 280). Based on the codes, patterns in the data material became visible. I found that some aspects indicated similarities while others indicated differences. Because of this, I decided to present the data in two different analyses.

The codes *attachment*, *use of TikTok*, and *pandemic* all indicated similarities between the participants. Therefore, I used the thematic analysis to highlight prominent aspects of users' relation to TikTok, and especially the For You page. This became the basis of the first sub-question in the thesis. In this analysis I used the extended understanding of attachment in the perspective of TikTok to present signs the participants had of attachment.

The code *related to age and person* indicted that the participants reflected in different ways around critical thinking and the algorithm, and they showed different levels of attachment. I found these differences as important findings and decided it was relevant to present them in a comparative person-centred analysis. This became the basis of the second sub-question. A comparative analysis is suitable when looking at diversity between the participants and can be used to explore causal links between reflections and personal characteristics (Ragin & Amoroso, 2019, p. 131). As the sample was only 8 participants, I found it useful to compare them in a person-centred analysis rather than based on groups.

In the comparative analysis, I explore the link between their reflections and their personal characteristics. Their reflections are sorted in three categories; *algorithm awareness*, *attachment*, and *critical reflections*. Based on descriptions of each participant, I have sorted them into a scale of low, medium, and high for each category. Further, these differences were compared to the personal characteristics age, screen time, and social engagement. I wish to be transparent about how these categories were constructed and will therefore explain each of them. They are based on a relational scale, which means I have only sorted the participants in comparison to each other. Therefore, minimum low and maximum high on the scale is based on the minimum low and maximum high in the data. This choice was made as this is what the data and available theory can be a foundation for. As this is a new topic within research, there is not available knowledge of the ideal low and high within these categories.

The category *algorithm awareness* was based on previous research regarding TikTok's algorithm, where awareness of how the algorithm works is presented as important. Low algorithm awareness is indicated by not knowing what the algorithm entails, or not being aware of its existence. Medium algorithm awareness means that they know some aspects of the algorithm but are not aware of it while using TikTok or does not describe it as problematic. High algorithm awareness indicates knowledge of the algorithm's functions and a critical perspective to how it works.

The category *attachment* was based on attachment theory and an extended understanding of attachment in relation to TikTok. Low attachment indicates that the participants show detachment from TikTok through critical reflections and a low degree of addiction to the platform. Medium attachment means that the participants are to some degree influenced, addicted, and connected to TikTok, but also shows signs of distancing themselves from TikTok through critical reflections. High attachment indicates that the participants are influenced, addicted, and connected to TikTok, with signs of low ability to detach from the platform.

The category *critical reflections* was based on the concept of critical media understanding and viewed through reflections around videos about the war between Russia and Ukraine, food content and workout content. Low critical reflections indicate trust in information on the platform, and low degree of reflections about sources and fake news. Medium critical reflections indicate some critical aspects to sources and fake news, but still signs of being influenced and trust information. High critical reflections indicate a critical perspective on sources and fake news on TikTok, in combination with critical views on the platform and low signs of influence.

In the analysis chapters I present quotes from the interviews. These have been translated from Norwegian to English. This has been a challenging task, as I wanted to make sure the meaning of the quotes were not lost in translation. When translating, the most important factor for me has been to stay true to the meaning and using the equivalent words in English. To keep the meaning, I have chosen to modify the structure of some sentences, rather than translating word for word.

4.4 Ethical perspectives

Ethical issues are embedded in all stages of an interview study, as by conducting interviews one is obtaining insight to private lives with the purpose to share the results publicly (Brinkmann & Kvale, 2015, p. 85). In my thesis, the first step towards an ethical project was to register and get approval from Sikt, the Norwegian Agency for Shared Services in Education and Research (see Appendix 4). Further, I made sure to get an informed consent from all the participants, which entails to give the participants adequate information about the project and their rights (NESH, 2021). Information about the project, how their data would be used and stored, their rights as participants to withdraw from the study, and a consent form

was sent to the participants prior to the interview (see Appendix 3). This gave them time to read the information, and I asked if they had questions about the information before getting their consent. When beginning the interviews, I repeated their rights and asked again if they had any questions.

Confidentiality was important to protect the identity of the participants (Ryen, 2021, p. 39), and I took measures to assure anonymity. Only gender and age are included as characteristics in this study, and the participants have been given fictive names. As I saw it important to include the specific age of the participants, I made sure to exclude other characteristics such as their occupation, education, hobbies and political views. I found this especially important to make sure participants recruited through network could not be recognised. I have also transcribed the interviews without dialects and excluded identifying information such as location. Further, I separated information about the participants from the data about them, and the data was stored on safe servers through the University of Agder. I have been mindful to keep the anonymity of the participants through the entire project, and especially in the analysis were quotes from the participants are included. In the analysis it has also been important to describe the participants through their own stories, and not manipulate their reflections (Ryen, 2002, p. 207). Another aspect that is linked to ethical considerations in a project is the researcher's role (Brinkmann & Kvale, 2015, p. 83).

4.5 My role as researcher

The researcher's role in a project is critical both in terms of ethical perspectives and scientific quality (Brinkmann & Kavle, 2015, p. 96). The interview setting has a power asymmetry, as I have been the one initiating and defining the setting, while the participants have shared their experiences (Brinkmann & Kvale, 2015, p. 37). Viewing the interview as a conversation where knowledge is constructed, it is important that I am aware of the power I have as the researcher. It has been my aim to follow the stories of the participants, both let them feel in power of their own story and to assure quality of the knowledge constructed. It is relevant to mention that different interpreters can find different meaning from the same data (Brinkmann & Kvale, 2015, p. 239). It has been my intention to let the participants stories guide the analysis, however I cannot be sure that my own views have not influenced how I have interpreted their words.

Regardless of my efforts to obtain objective knowledge, it is impossible to conduct research without having a perception of the topic before beginning (Ragin & Amoroso, 2019, p. 44). After all, there are few restrictions when it comes to the topic of a master thesis, and I have chosen TikTok as I believe it is both interesting and important. I have written notes on my own reflections through the process, and looking back it is clear that I have been critical to TikTok from the beginning. The project has brought forward insights I had no knowledge of prior to the interviews, but the conclusion of the thesis is critical in a similar way as I have been from the beginning. I wish to be transparent in my research, and therefore I believe this is important to mention. Although the stories of the participants are the results of the project, my views could have affected the framework I have analysed the stories within.

In my role as researcher, I made it a goal to understand TikTok on a personal level as well as through reading previous research. Because the topic was relatively new in academic research, I realised that I had to obtain knowledge about the platform in other ways. Therefore, I have used TikTok myself through this process. This has been a strength in the interviews, as I have been able to follow the stories of the participants where they use slang or code words specific to TikTok. It has also meant that I knew the technical aspects of the platform and could follow up when the participants were explaining how they used different features. However, this approach is not without potential implications. As I have shown with previous research, TikTok is personal. This means that my For You page is personally adapted to me, and that can affect the way I view TikTok. Further, as I have been a user, I have not been a researcher standing on the outside and looking objectively on a topic, I have also been a part of the topic myself. Overall, I have viewed this as a strength in the project, but it is important to be aware of the potential methodological implications.

4.6 Methodological reflections

The qualitative interview has received critique as a method to obtain knowledge (Ryen, 2002, p. 134). It can be viewed as a process that places the participants in an interaction with a researcher, and the result is knowledge dependent on the interaction and not the participants reality (Brinkmann & Kvale, 2015, p. 330). This means that the interview as method lacks objectivity, and it can be difficult to reproduce the knowledge in another setting (Ryen, 2002, p. 134). It is important to keep this in mind when applying the results, as it weakens the possibility to generalise findings. However, in this project I argue the qualitative interview is a suitable method to explore a topic with a lack of previous knowledge. With analysing just a

few cases, it is possible to get an insight into interesting tendencies and aspects (Brinkmann & Kvale, 2015, p. 141), which can further be applied to understand a relatively new topic.

Further, some perspectives of the methods used in this project are worth reflecting on. In the recruitment of participants, self-selection can affect the findings as there can be underlying factors to why they choose to participate (Tripepi et al., 2010). Some expressed reasons such as wanting to learn about conducting a master thesis and having an interest for the topic both personally and through their work. The participants requited through network can have relational factors as to why they participated. It is difficult to know everyone's reason to participate, but important to be aware that there could be reasons that affected their stories. Another aspect is the translation of quotes from Norwegian to English. I have been thorough while translating to maintain the meaning of the quotes, but some points can get lost or be altered in the switching of languages.

TikTok is an evolving platform, where the technology is changing rapidly, and the inner workings of the algorithm is not publicly known. This means that alterations to the algorithm or other features can have occurred during the time the interviews were conducted. Further, when applying this research to the platform in the future, the technology can be different. However, one should not be afraid to explore evolving topics, as obtaining knowledge about them are just as necessary.

5.0 Users relation to TikTok – attached to scrolling in a filter bubble

In this chapter I look at the participants relation to TikTok through a thematic analysis that highlight the similarities between the participants. I use perspectives from attachment to analyse the participants relation to TikTok. I analyse the findings related to the first sub-question; *In what ways do young adults describe their relation to TikTok and especially the For You page?*

The chapter begin by describing their use of the platform, before moving on to look at their attachment to TikTok. In this part I view three aspects that show attachment; addiction, using the platform to fill time and how they feel captured by their For You page. Further, I look at how the participants reflect around the personalization of their For You page and focus on how they describe a symbiosis with the algorithm and end up in a filter bubble. The third factor of attachment I look at is how the participants are influenced by TikTok, and especially the way they view news and political content on their For You page. Lastly, I look at the pandemic as a factor that participated in shaping the users' attachment to TikTok.

To introduce this chapter, I want to address the participants' description of how they use of their phone in general. In the beginning of the interviews all the participants were asked if they would say they spend a lot of time on their phone in their everyday life, and the answers were clear.

> *Yes, quite, quite a lot. Maybe a bit more than you should*. - Jonathan
>
> *Yes, a bit too much time actually, like almost every five or ten seconds I just pick up my phone and look at notifications. -* Lukas
>
> *Yes, I will. It is, in a way, you get more and more addicted to it*. - Charlotte

Charlotte even expands on this and tells a story where she walked to the nearest public place with free Wi-Fi when the internet on her phone stopped working, because she was addicted to being available on her phone and having it connected to internet.

> *Yes, you become very addicted, and then it was like where can I get to an internet connection, okey went to [shopping mall in her city] and then I found out the internet had stopped working, but you get very addicted in general to the phone and that access, the opportunity to contact someone no matter what in a way. You get very addicted to it*. - Charlotte

Thomas, Amanda, Hannah and Melissa all had similar statements about spending a lot of time on their phone. They almost shamefully admitted they spend a lot of time on their phone, and the only exception was Benjamin;

No, I'm very bad at using my phone and I'm not that much on my phone in general, I have gotten a few complaints from friends and stuff like that, saying I have to reply to them, but I'm not too concerned about it. But I use TikTok, I'll say that I keep up with different, I manage to keep up with trends, news and things like that, I pay attention to that. But, I have maybe, I'm maybe on average one hour on my phone during a day. Like, during the whole day, so it's not that much. - Benjamin

At the end of the interviews, I asked about the participants screen time statistics, and Benjamin's statistics revealed that he spent on average 3 hours and 37 minutes on his phone during a day, where 1 hour and 2 minutes of that time was spent on TikTok. A quite different timespan than what he believed himself. The other participants seem to be aware of their high screen time. They had more accurate guesses when they were asked how much time they believed they spend on their phone, and it varied between 3 and 7 hours.

5.1 How do young adults use TikTok?

When we move on to talking about TikTok, the participants define their use of the platform as entertainment. In some cases, TikTok is described as a social media platform, and it can also be talked about as a platform for communication. However, the participants seems to agree on Tiktok being about entertainment. When comparing TikTok to the other apps they use, Amanda and Jonathan describe it like this;

There I don't need to talk to people or post photos or videos myself, it's more entertainment. So, I use TikTok just to relax a bit more and watch something fun. […] TikTok is more entertainment, Snapchat is more for me to talk to friends or share my life with the rest of the world, and Instagram is also just to share my life or see what others are doing, so then TikTok is mostly entertainment. - Amanda

Maybe TikTok and Instagram are more similar, the way you fall into a flow of watching a video that goes to the next video, but I use Instagram more to publish and share than what I do, I'm not very into that, I don't post on TikTok, that's more to see things. And Snapchat is communication, it has basically just replaced messages.
- Jonathan

A similar separation between the most popular apps is done by the other participants. They use other apps as their main platforms for communication, and the only communication they have on TikTok is if they send videos to a few of their close friends. Thomas says he follows three of his friends on TikTok and they send videos to each other, but the communication does not extend to anything other than the videos.

Lina:	*Then the videos are the main communication, there is no communication about other things in the chat?*
Thomas:	*Not on TikTok, but with my friend from [hometown], we talk a lot on Discord.*
Lina:	*So then there are other platforms for communication?*
Thomas:	*Yes, TikTok is not a communication thing, it's just like we talk to each other and mention we sent a video on TikTok, it's more like a side thing.*

The way TikTok is described by the participants emphasizes why it is defined as an entertainment platform. The way they describe their interactions with content on TikTok also emphasizes how they only use the platform for entertainment. It seems like the participants are passive observers to the content on TikTok as only Thomas and Jonathan say they occasionally comment on videos. In addition, only Charlotte and Lukas have posted a few videos themselves, the rest of the participants say they only watch content others have posted.

When asked how they watch content on TikTok, the respondents say they use the For You page. The For You page is the main feature on TikTok, and it is the default page users see when they open the platform. Melissa and Benjamin describe their use of the For You page like this;

> *I'm on the For You page, and just scroll down watching what shows up. [...] If I see a video about something that interests me, I might go to the creator's profile and look through more of their videos. But otherwise, that's really what I use it for.* - Melissa

> *I don't use the full app with all its functions, I'm kind of just using For You page.* - Benjamin

These descriptions are similar to those of all the participants. When they talk about TikTok it seems to be implicit that they mean the For You page. For example, if they say they have seen something on TikTok and I ask about where they saw it, they respond in a way that indicates that everything they see on TikTok is from the For You page. The other functions on the platform are used by some of the participants, but less often. Thomas explains the Following page as something he has used by accident;

> *I've used it by accident without realizing I swiped to the side. I use the following function more in a way that if there are creators I find interesting they will appear more often on For You page or if I want to look at them I have them available in my following list, but I'm very rarely using the separate Following page.* - Thomas

Jonathan was the participant most open to using other functions, but he still estimated that he spends 90 percent of his time on the platform on the For You page.

It's probably mainly the For You page, I do follow people and occasionally I use the Following thing if I feel like I get a lot of the same again and again, but it's probably 90% of the time on the For You page, and if there is something I really question I'll search for it and try to find things and try to find more videos about it, but that is rare. - Jonathan

The For You page shows videos varying from 2 seconds to 3 minutes, and it is calculated that users on average watch 4 videos per minute (Fan & Hemans, 2022, p. 42). Based on this, the participants would watch multiple videos each time they used the platform. However, when asked if they could remember the content of the videos from the last time they watched TikTok the answers were limited.

Oh, that must be, I think it was in the morning today, I'm a bit unsure, I don't remember what it was. I think it was very much like a lot of nonsense I skipped. I don't really remember, there was nothing that stood out. […] But most videos you forget right away, you see so many videos per session and you have multiple sessions in one day, so you forget the most of it. - Thomas

Last time I was on TikTok it was that one, the inspiring video about you should expect more and work more, it was that video I saw. And then I saw the noodle video again, I don't remember what else. I use TikTok often, but I forget what I watch. Oh, and also there was a make-up video, those are the three I remember. […] There was probably more I watched, but I don't remember what that was. - Amanda

The reflections Amanda and Thomas have about remembering videos they see on TikTok indicate that a lot of the content is forgotten. Similarly, the rest of the participants could only remember one or two topics from the videos, which signifies that they have forgotten a lot of the content they saw earlier that day.

Further, an important part of describing the participants use of TikTok, is how they use the platform during their day. Most of them describe TikTok as a way to fill in the empty spaces they have in a day. This can be while waiting for a bus, sitting on the toilet, getting ready in the morning, between classes, or in the evening. For some of them this seems to be related to the participants being bored or having some time without anything specific to do. Melissa and Benjamin give these examples;

It could be if I'm making dinner for example, and I'm waiting for something to boil, or if I'm going to have a visitor soon so there is no point in starting to do something else, then its pretty good to grab, just entertainment for 10 minutes. - Melissa

I use TikTok if I'm really bored, if I don't have anything to do. […] But yes, for example if I'm on the toilet, then I might spend 40 minutes on TikTok, that can happen, it happens. So, things like that, if I'm lying in bed and just relaxing early in the morning, if I don't have anything I'm going to do, then I can just sit for an hour on TikTok there as well. So, that happens on those days. - Benjamin

When Thomas describes his use of TikTok, he explains that he uses the platform throughout the whole day and most in the evening;

> *I use it a bit in the morning, when I'm having breakfast, going to the toilet and things like that. And then I go the university for classes and such, so if there is some time between classes or on the bus, or things like that. A lot in the evening, when I'm starting to become a bit weary and it's not that much time left before I'm going to bed. […] So, it's often until I either fall asleep or if I can't sleep, it goes all the way there. To the bitter end. - Thomas*

Using TikTok mostly in the evening is a trend among the participants, which Hannah, Melissa, Lukas and Amanda all agree on. Amanda describes how she usually watches a show while eating dinner, and moves on to watch TikTok until she goes to bed, and then again until she falls asleep. Similarly, Jonathan and Charlotte both describe the evening as the time they use TikTok the most;

> *When I have a lot of time on my phone, that's the whole stretch from when I get home until I fall asleep. But especially in the evening, from around 6-7 o'clock after dinner and until I almost pass out asleep. It is often the first thing I see in the morning and the last thing I see before falling asleep. Which is disgusting to say out loud, but it is the case. - Jonathan*

> *In the evening perhaps, like before you actually go to bed for the night. I watch a lot of TV as well, but that's a bit different in a way, because if I watch a bit of TV before I go to bed, and then I go to bed and I scroll a bit, maybe not a bit kinda, but a lot, but yeah in the evening. - Charlotte*

The way the participants use TikTok, both in short periods during their day and for a longer time in the evening, indicates that the platform has a significant role in their everyday life. When they spend such amounts of time on TikTok, that could indicate an attachment to the platform. These signs of attachment are what I continue to investigate in the following parts.

5.2 Signs of attachment

The participants relation to TikTok shows signs of attachment. To begin looking at the bond between users and TikTok, the following example illustrates how the users can have an emotional relation to the platform, and that the platform can affect how they feel. When Lukas talked about how TikTok can be addictive for many users, I asked him if he felt addicted himself. He responded with explaining how TikTok gave him happiness during the day;

> *Yes, a little. To be completely honest, it's like when you don't know what you spend your time on. So, when you don't have anything to do, you use it, you use TikTok to pass the time. So, like it's just a way to get through it in your everyday life. Just as long as you find something fun in life, even if that's just using TikTok. If you watch a funny video, then it can affect you in a completely different way. You feel happy from watching that video, which actually gives you a good impression. And like wow that video was actually good or that video was very informative for your work.* - Lukas

With these reflections Lukas indicates that TikTok has the capability to affect the way he feels and give him happiness in his life. Looking at attachment in this relation, the emotional aspect indicates that Lukas has an attachment bond to TikTok and his For You page. Lukas is not alone in describing a dependency to TikTok, the addiction is by Thomas compared to being addicted to nicotine.

5.2.1 Addicted - comparing TikTok to nicotine

If you smoke or use the Norwegian snus your body gets used to the nicotine and you will feel discomfort if you stop using it (Helsedirektoratet, 2022). When I asked Thomas if he felt addicted to TikTok, he compared it to being addicted to nicotine and said that quitting smoking gives a similar feeling as when he tried to delete TikTok.

> *Yes, it's somewhat the same as I've used to explain snus or nicotine addiction to friends who has not used snus or smoked before. So, it's like in a way the bodily physiological feeling of having nicotine in your body is only a small part of the addiction. For example, if you smoke cigarettes which I did for a short period, it was very like now I'm going to take the bus to school, then I'll have a cigarette on the way there. And then okey I missed the bus, so I have to wait 10 minutes, then I'll have a cigarette in the break. So, it's like, everything you do during a day, there are a lot of little holes that are suddenly empty, and your entire day feels a bit empty. The same thing I feel is very relevant to TikTok, that if you watch TikTok between the things you're doing and while you're waiting, or when you're on the toilet or before you go to bed. Then suddenly there are many short intervals during a day that is empty and won't be filled by anything else, and then your day might feel a bit empty all day. In a way, that's how I've felt it.* - Thomas

Thomas shared these reflections in relation to deleting TikTok for a short period of time. He said he had to delete TikTok on a weekend trip where he had responsibilities for the group he was traveling with, because he wanted to be able to participate and focus on what they were doing on the trip. He said that "*on the first day it was like TikTok needs to go, today I have to focus*". Even though he deleted TikTok, he did download it again shortly after. I asked him why, and he described it could be either because the event he deleted it to focus on was finished, or because he experienced something was missing on his phone;

If I've deleted it because this week is going to be hard, then maybe when I'm done and want to relax a bit, like now I've finished most of it and its back to a normal speed again, then I can download it again. Other times, it has been like I go to the toilet, sit down and open my phone, and something is missing. Then something is missing that should be there. So, there has actually been a bit of both. - Thomas

Similar to Thomas, Jonathan also talked about having to delete TikTok for 2 months because it occupied too much of his time. He said he wanted to get a detox from TikTok, but felt a fear of missing out (FOMO) when he was not updated on what was going on within the TikTok world. When he reinstalled it his screen time went right back to the same level.

In a way I look at it as an addiction. I stayed clean for a while and then got sucked back into it, and when you're back on the same track, it did not take long until I was back again to exactly the same use. It was not a slow build-up, it was like I've missed so much that I need to catch up. - Jonathan

Melissa also talked about having to delete TikTok because she experienced it took too much of her time. Now she has taken precautions and has a time limit of 1 hour on TikTok each day;

I've activated a time limit on my phone so that I can only use TikTok one hour a day. But that was because I noticed that I could sit for a long time, and especially in the evening when I had gone to bed and lay there scrolling, then the hours fly by quickly. - Melissa

Even though she has the notification at one hour, she says she quite often ignores it and keeps on scrolling. These examples show that the participants are aware of their own addiction to TikTok, and they are trying to change their habits, but fail to do so. It seems to be a common situation among the participants that they are aware of how TikTok affect them, but they still keep using the platform. Both Lukas and Amanda pointed out that they know it is bad for them, but they continue to use it because it is good entertainment. Amanda said; "*well, this is a bit dangerous, but I get funny videos so it's fine.*"

As these quotes have shown, many of the participants tell stories of feeling addicted to TikTok. This seems to be something many of the participants have in common. Charlotte does also mention this; "*In a way, you become more and more addicted to it*". An addiction to TikTok can have multiple different aspects, and one of these seems to be a need to fill time during the day.

5.2.2 Using TikTok to pass time

When the participants talk about their use of TikTok, many seem to use the platform to fill an emptiness during their day, either if that is because they are bored and want to pass time, or if they want some company. Charlotte talked about how she lives alone and needs to have something playing to not feel lonely, and that she uses TikTok to pass time if she has small breaks during the day.

> *I live alone and I've developed a habit of not being able to have it quiet around me, especially in certain periods, and then it's like okey there was nothing to watch on TV maybe I should scroll a bit. So, as entertainment and to have a sound, then it's not as lonely in a way. And also, kind of use it when I'm getting ready, that or music, when I'm getting ready or often when I'm on the toilet which sounds gross, but I do that. I use it a bit everywhere, and if I have some time to spare. I'm the kind of person that gets to things early and then just to pass time. Okey if I get there 15 minutes early, I just need to pass a little time. Just like, I actually have other important things to do but I use TikTok instead, it's a lot more fun to be on TikTok.* - Charlotte

Opening TikTok when they are idle or are bored is mentioned by all the participants. Hannah said she uses it if she wants something to do and to pass time, Benjamin said the same and added that he uses it if he does not have anything to do. Thomas talked about TikTok as entertainment during breaks in his day;

> *TikTok for me is really a way to, or a platform I use to fill time. Waiting for the bus, when watching a movie and someone goes to the toilet, there's a lot of break stuff like that. Or if there is a point during the day where everything else I could think of doing is too exhausting or I can't bother to do the other things now, can't bear to work with something when I'm tired. So, just as very very light entertainment, that's mainly how I use TikTok.* - Thomas

Using TikTok when there is nothing else to do seems to be the case for Jonathan as well;

> *It's usually if I find some empty space or there are 10 seconds where I don't have a thought that I need to complete, then automatically I open TikTok and watch things.*
> - Jonathan

As a follow-up to this, Jonathan said that his amount of time off, equals to his time spent on TikTok. On the days he is at work, he spends less time on TikTok. But, in the evenings he is at home, he can watch TikTok from after dinner until he goes to bed. The way the participants talk about using TikTok to fill time during their day indicates a need for constant entertainment or distraction. Melissa gives an example of how watching TV is no longer enough entertainment, and that if she thinks the TV program is slow, she will scroll on TikTok at the same time.

Lina:	*When you open TikTok, what would you say you're looking for?*
Melissa:	*Well, it's entertainment I guess, and I can easily sit and watch TV and watch TikTok, so yeah, it's to pass time. Simply to become entertained, in a way passive entertainment.*
Lina:	*When you watch TV and then open TikTok at the same time, what makes you do that?*
Melissa:	*Oh, well, perhaps the TV is not entertaining enough. Also, I think we're in a way used to, especially with these social medias and TikTok, that things sort of move quickly and if there is something you don't like you just swipe. And then when the TV is sort of slow, then it's easy to just do something else.*

Melissas description of already filling her time with watching TV and then opening TikTok because it does not give her enough entertainment adds another dimension to the users need to be entertained. In general, the examples the participants give of using TikTok to pass time during their day does already include them doing something else. For example, taking the bus, making dinner, going to the toilet or getting ready in the morning. The need to have TikTok in addition to another activity does in a way show attachment to the platform. This attachment is also visible in other examples where the participants are at home and describe how they can get lost in the flow of scrolling through videos.

5.2.3 Captured in the flow of endless scrolling

Charlotte uses TikTok to fill emptiness during her day, but she also said she uses TikTok when she has other more important things to do. This indicates that she prioritizes it over other tasks, and the tendency is visible when the participants talk about how they will watch TikTok until something else gets in the way. I asked them what made them stop using TikTok, and Benjamin said it could be that he had to go to work or do other errands. He added that "*TikTok is addictive and it's not good, you get absorbed into it.*" It seems to be that users get lost into their For You page and need to have something scheduled or something else that reminds them to stop.

When I asked Hannah what happened when she stopped scrolling, she said it was often because she had something scheduled. For example, it could be 10 minutes until her bus left and she had to get ready, or if she had to go to bed at night. Her conclusion was that if something happened in the real world, she would stop scrolling on TikTok. Charlotte's reflections support this, as she said her For You page continues to be funny, and she does not get tired of it. However, she said she will stop scrolling if "*something gets in the way, that*

someone calls or stuff like that, or if I have to call someone, like now I have to contact someone. So, I don't get tired, but it's like... you have a life kinda."

Jonathan also said he gets caught in his For You page, and can keep on scrolling;

> *Once I'm on TikTok, I get caught up in that flow where you watch scroll watch scroll, and that's mainly it, it's to fill the void. Maybe, to the extent where I prioritize it over doing other things. I know that one thing I notice that I do a lot is that I look at the time and see that I've been on it for a long time. Then I think I can watch until 55 and when the time is 55 I'll stop. Then the time gets 56 without me noticing, and then I postpone the deadline, things like that.* - Jonathan

When talking about his For You page, Jonathan described himself as addicted. He said he felt captured to the extent where he needs something to remind him that other things exist;

> *It's often that I'm on TikTok until I see someone talking about a movie or a series. Then I can catch myself switch to watching that movie or series that I was advised about. That happens quite often. Or something else, that a character shows up that reminds me of a series I'm watching. I almost need to be reminded that other things exist.* - Jonathan

The phrase "bottomless feed" was used by Jonathan to describe his For You page, and this perception is common among the participants. Hannah said TikTok continues to be interesting, as there are always new things to watch, and that it could feel like she never gets full of it. Benjamin's description matches this, and he said it often happens that he watches all the videos he gets on his For You page, and just cannot move on from it. Further, Amanda described the perception like this;

> *Every now and then I can end up in a black hole where I just scroll and scroll and scroll. But I don't really see anything special, but I'm looking for something that can satisfy me. Sometimes I get tired and leave it, but I notice that I get sucked into the screen because I want to watch something fun.* - Amanda

Although the tendency among the participants is to scroll for a long time, both Lukas and Thomas offer different perspectives. Lukas said he uses it every now and then, but not for long periods at a time. Similarly, Thomas said he almost never uses TikTok for more than 15 minutes at a time, but he uses it multiple times throughout the day. This indicates that both Lukas and Thomas come back to TikTok and enjoy the For You page, but rather in short periods multiple times. Overall, the participants seem to be able to get lost in the endless scrolling on their For You page, and it does not stop being interesting. This could be related to the way the For You page is personalized to the users.

5.3 For You – a personalized feed

The For You page is created by an algorithm to reflect the interests of the user, and it became visible during the interviews that this feature is something the participants enjoy. Charlotte described it like this;

> *The algorithms on TikTok are very much playing on my team, so I often have periods where I can laugh out loud by myself because almost every single video I watch is just hysterically funny to me.* - Charlotte

Being able to watch an endless flow of videos that suit their preferences seems to be an important element to why the participants get attached to TikTok. Some of them even describe their For You page as a reflection of their personality.

5.3.1 In symbiosis with the algorithm

A part of being attached to a phone is to view it as an extension of oneself (Meschtscherjakov et al, 2014). Such a form of attachment becomes visible when the participants reflect around the link between their For You page and their personality. At the very end of the interview with Hannah, I asked her if there was something she would like to add, and this is what she said;

> *No, nothing much. Well, it's more like, I feel like TikTok is part of your personality because you get videos of things you are interested in.* - Hannah

She said it like it was the most obvious thing and when I asked her more about it, she described how TikTok affected her personality and in return her personality affected what videos she got on her For You page. This connection was also made by Amanda. She reflected on how her For You page was adapted to her personality, and said she noticed how her friends had different For You pages that reflected their personalities. She had compared videos on TikTok with two of her friends, and found that they all had different videos, but that the differences made sense based on their personalities. Defining a relation between For You page and their personality does indicate an attachment relation. Similarly, Thomas also reflected around a relation with TikTok.

Thomas compared his relation to the algorithm and the videos on his For You page with a symbiosis. He described it like "*Me and the algorithm, we cooperate to give me a good For You page in a way.*" In his definition of the relation between the For You page and himself, he said he participated with an active role. Thomas described how he would engage with videos he preferred in order to communicate to the algorithm that he wanted more of this content.

Compared to Hannah and Amanda, Thomas does have a more aware relation to how the algorithm shapes the For You page, but all three of them describe tendencies of a symbiotic relation.

5.3.2 The effects of filter bubbles

When the personality of the user shapes the content they watch on their For You page, it creates a filter bubble. The participants do not directly point out that their For You page is a filter bubble, but based on their reflections it becomes visible that they are scrolling in an echo chamber. This does show the essence of a filter bubble, as the participants are not aware of it, they are potentially affected by it.

The first sign that indicates a filter bubble is that all the participants have described different content on their For You page. I asked everyone what topics they get on their For You page, and they gave very different answers. Based on other things they said about themselves, the topics on their For You page seem to correlate with personal features such as their field of work or study, their hobbies, their humour and their political standpoint. When the algorithm creates individual digital worlds, the users seem to believe that what they are seeing is what is popular for other people as well.

Both Lukas and Benjamin described a topic they had seen a lot on their For You page as a generally popular topic, which serves as an example of the effect the filter bubble can have. When they explained the topics to me, they seemed to expect that I had also heard of them. Their topics differed from each other and no one else mentioned these supposedly popular topics in the other interviews. To give an example, Lukas talked about drop shipping;

> Lukas: *And also, I've gotten a lot of videos about drop shipping, if you've heard of that?*
> Lina: *Oh, no, what's that?*
> Lukas: *It's like, it's drop shipping*
> Lina: *Hmm, what?*
> Lukas: *It's become like a thing now, on TikTok. […] Basically, I get those kinds of videos every day.*

The way Lukas presents drop shipping indicates that from his point of view this topic is popular. However, no one else mentions this when they talk about the popular topics on their

For You page. Similarly, Benjamin talked about how he sees debate videos in a specific format on his For You page as if they were popular. His reflection around the debate videos were also interesting because he presented them as if everyone agreed on who was right and wrong. This shows another aspect of filter bubbles, where the users end up in their own digital world and the videos they watch reinforce each other.

Related to the debate videos, Benjamin said that everyone in the comment section agreed on who was right in the discussion. It is difficult to know for sure but based on the knowledge available about the algorithm on TikTok, the videos are most likely shown to other users with similar opinions. When everyone in the comment section agrees, this further amplifies the filter bubble. I asked Benjamin if it could happen that he thought the arguments in the videos were good, to which he responded "*Yes, that happens a lot, yeah yeah yeah.*"

These debate videos are examples of how the filter bubble can involve political content. Thomas defined his political standpoint, and then talked about how he could see videos that explain why creators with the opposite standpoint are wrong. In this case, Thomas' For You page reinforces his political opinions. However, it does after a while become difficult to know if the users' preexisting opinions shaped their For You page, or if their For You page has the power to influence their opinions.

Building on how Thomas explained his relation to the For You page, the way he talked about finding new interesting creators is an example that shows how the filter bubble potentially can influence. I asked him if he found new creators to follow while scrolling on For You page, and this was his answer;

> *It happens, that's how I find people. I don't think it has happened that I knew about someone from earlier and looked them up, I don't think that has happened. It's been some creator that I've seen repeatedly and often though had interesting videos. So, at some point I've just thought oh that's them, okey then I'll follow them because I think it's interesting.* - Thomas

This reflection shows how the algorithm can introduce new creators and over time the user can potentially find the content interesting and begin to follow the creators. Based on this insight, the filter bubble has the potential to influence the user. Hannah also gave a reflection that supports this. I asked her about what could make her trust videos she saw on TikTok, and she answered that "*maybe if I've seen multiple videos about the same thing, that in a way the same thing has happened.*" This statement further shows how the filter bubble can influence users, as is shows multiple videos about a topic because that is the interest of the user.

However, that only means the algorithm has found multiple similar videos, not that the information is true. The way Hannah and Thomas talked about getting affected by the videos on their For You page demonstrates the potential TikTok has to influence users.

5.4 Influenced by TikTok

An important factor for attachment to a digital platform is trust (Kim et al., 2016), and the way the participants talked about getting influenced by TikTok indicates a form of trust to information on the platform. They talked about tricks and wisdom they learned from videos on TikTok, such as recipes, study hacks, tips related to their work, fashion and life wisdom. Charlotte gave an example of how she takes inspiration from recipes she sees on TikTok;

> *I made, I can't remember exactly what, but I know I made something from a recipe. Oh, yeah we made sushi! A mixture with salmon, which was like sushi salmon, and there was like a mixture. It was me and my boyfriend, and we went to every Asian store in [city] to find exactly what he used in the video, and it was really good.*
> *- Charlotte*

In this example, Charlotte describes how a video made them walk to multiple stores in a large city to find exactly what she had seen on TikTok. Later, she also talked about a video she had seen about how to make cheap dinners for students, which she said inspired her to use these tricks when grocery shopping. Both Hannah and Benjamin also talked about getting inspiration for recipes. Benjamin had made both dinners and smoothies based on videos he saw on the For You page. Getting inspired by recipes on TikTok seems to be a common trend among the participants. Jonathan mentioned using life hacks that involved recipes, but also many other aspects;

> *There are a lot of life hacks, I definitely have something. There are a lot of food life hacks, I use many tips like that, for how to best cut things, how to get rid of food waste, things like that. Music life hacks. […] Yes, and for example study tips, it's strange that I didn't think of that straight away. Scanning documents, easier ways to transfer information, good sites to find information on, things like that. So, I use those kind of life hacks a lot, I do. - Jonathan*

When I asked Jonathan where he saw these life hacks, he said they just showed up on his For You page, and that he would like them to save them for later. In the same way, Lukas said he uses tips from his For You page for studying, hobbies, and work. As an example, he was inspired to use the artificial intelligence program chat GPT. Videos about the program had been all over his For You page, so he tested it out himself. In Amanda's case, it seems to be fashion and lifestyle videos that influence her the most. She talked about seeing fashion

videos, and I asked her if the videos could affect how she dressed. Her answer clearly showed that she was inspired by them;

> *Yes, yes, I get inspiration from it. I'm just thinking about, people make those thrifting hauls, like they bought this, and then I think oh I also want to find a jacket like that the next time I go thrifting, it's a lot like that. Also, I save videos because I think the outfit was nice.* - Amanda

Further, Amanda said she learned on TikTok how to defrost her car in the winter, and that going for a walk every day is better than doing a hard running work out once a week. Similarly, both Hannah and Melissa said they found workout inspiration on TikTok. These are just some of the examples the participants talked about in relation to getting influenced by TikTok. A last example that truly shows the power TikTok has to influence users is how Jonathan described that he saw a video on his For You page about detoxing from TikTok, and that inspired him to delete TikTok. This was how he described it when I asked him why he deleted TikTok for a period of 2 months;

> *I think, I probably heard, it was a clip from a podcast that was posted. I actually don't remember who posted it, but it's someone I've seen a lot from that said he took a detox. Like he removed himself from social media, and maybe not that it helped him, or maybe it helped him a bit mentally, I think it was a guy, but just that he got more ownership over his own time. I felt perhaps that I lost that ownership, yeah I think so.* - Jonathan

When the participants describe getting influenced by TikTok in these different ways, that does indicate a form of trust and further attachment to the platform. It seems like their For You page has the potential to affect things such as what they eat, how they dress and how they work out. All the participants describe that they save videos on TikTok with information they find useful or inspiring, so that they can come back to it later, which supports the fact that they are influenced.

Further, an indication of the trust the participants have in TikTok is shown by how they use the platform to search for new information. Several of the participants described how they use the search function on TikTok the same way they use Google's search engine. For example, Amanda used it to find more information on interesting topics she saw on her For You page, Jonathan searched on TikTok to learn how to change the battery in his car keys, and both Melissa and Benjamin searched for workout videos. Even though this is different from being influenced by the For You page, it illustrates the trust the participants have in the information on TikTok.

The examples presented in this chapter are just some of the ways the participants described getting influenced by the videos on their For You page. In these examples they are influenced with hacks for their everyday life, but there were also examples of participants getting influenced by political content and possibly shaping their view of society based on what they saw on TikTok.

5.4.1 News and politics on For You page

Even though TikTok is an entertainment platform, there are also videos about news and politics. Videos with this type of content can be made both by established newspapers and by individuals. On TikTok everyone can publish videos, and false information can be spread on the platform. With this perspective in mind, it is interesting to look at how the participants talked about watching news and political content on their For You page.

Among the participants, several mentioned seeing news on TikTok, and many were positive to getting updated on news through their For You page. When Lukas talked about watching news on TikTok, he described it like this;

> *I feel you find a lot more on TikTok than you do on news platforms such as VG, Dagbladet, Aftenposten and so on. Like, there aren't that many videos there, but on TikTok you can find lots of different videos, and you can watch them for free as well. That's one of the benefits of using TikTok.* - Lukas

Benjamin had scrolled on TikTok earlier on the day of the interview, and talked about how he had gotten information about a mass shooting through TikTok;

> *I think it's a good platform to get information from, for example news. Earlier today I got information about the mass shooting, which was just now in the US, which was very sad. But then I got, I didn't see anything about that, so I got to know that through TikTok in a way, so I like a bit of news and such.* - Benjamin

These two examples indicate that they watch and trust the news they see on their For You page. Benjamin and Lukas both said they read news from other sources as well, but Amanda said she only watches news on TikTok and will go to other sources if she thinks the topic is interesting. This means that her For You page sorts what news she watches and gives her a personally adapted viewpoint to the news. Further, Jonathan also showed an interest in the news-related information he got on his For You page. He said "*I believe that like after TikTok came, I've in a way maybe broadened my horizon for what topics I care about.*" This

statement indicates that using TikTok has influenced Jonathan's perspectives on news and politics.

Similarly, a part of the interview with Lukas could indicate that his political views were influenced by TikTok. Lukas gave some critical reflection about the current government and how they had handled ongoing political discussions. When I asked him where he got this information from, he said that he saw some videos on TikTok which he described as satire and humoristic. I asked Lukas if he believed that facts were presented even though the videos had a humoristic undertone, and he said yes. He said the videos did not affect his opinions, but then continued to describe why these matters that the videos were about are important. It is difficult to conclude with Lukas being influenced or not, but this does highlight an interesting dynamic with news on TikTok.

This interesting dynamic is also visible in how Thomas described the value he has taken from TikTok into his everyday life. He talked about how he saw videos about politically characterized discussions and got information about topics he had not thought about earlier. Getting information about new topics from the For You page does indicate that the topics presented by the algorithm influences which topics Thomas cares about. This indicates that the participants political and news related insights can be influenced by their For You page. In addition to this, Amanda reflected around how her For You page affected her opinions and she said; "*There is probably a lot that I unconsciously begin to agree with.*" This gives an interesting perspective, as it means the participants might not be aware of how TikTok has affected their opinions,

To round off the participants' reflections that shows the potential influence of TikTok, a perspective that came up in the interview with Jonathan offers an interesting insight. I asked Jonathan about what made him trust the information on TikTok, and he reflected around how the information is presented to users in an environment where they have no reason to be sceptical;

> *There is something about the setting, you're lying pretty safely at home in your bed or on the couch, you feel like you're in a safe place where there's no challenges. And then you get one of those videos, is that true, yeah okey, and then you save that information without thinking about where it came from.* - Jonathan

So far in this chapter I have presented signs of the participants attachment to TikTok, but it is also interesting to understand how they shaped this attachment. Further, I look into how the pandemic affected the participants relation to TikTok.

5.5 Attachment shaped during the pandemic

The COVID-19 pandemic affected humans' relation to digital platforms, and TikTok gained many users during the lockdown periods in 2020 (Kaye et al, 2022, p. 8). In the interviews I asked all the participants if their use of TikTok had changed before, during, and after the pandemic. In the case of Thomas and Benjamin the question was not relevant to their use of TikTok, but the other participants showed a tendency to increase their use of TikTok during the pandemic.

The platform was released to users outside of China in 2018, and Jonathan, Hannah, Amanda and Melissa all downloaded TikTok before the pandemic reached Norway in March of 2020. All four of them said that even though they had TikTok on their phone earlier, they did not begin using the platform properly until the pandemic.

> *I probably downloaded TikTok maybe 2-3 months before the pandemic. So I wasn't that familiar with it back then and I didn't use it much, but the more you sit alone at home for example, the more the TikTok use increases. It was especially when quarantine began and COVID came, then it was a lot. I think I've gotten very used to that world, so even though maybe, well I can't say after COVID because it still exists, but after all the stuff, then I use it almost as much, if not more. -* Jonathan

> *I used TikTok a lot less before the pandemic, and when the pandemic came, I used it a lot more. Then it was like you need to figure out things you can do at home and while self-isolating. So, then I did like made the coffee, drew, right. And then after I've really just done the same thing, I've just continued watching. -* Amanda

Here Amanda is referring to the coffee trend that went viral on TikTok during lockdown. These reflections show the effect the pandemic had on their use of TikTok. Charlottes reflections were similar, even though she did not download the platform until the spring of 2020. Perhaps she was even more affected by the pandemic as it made her download TikTok for the first time. She said that for a while she did not have an account on the platform, but all of a sudden her use exploded, and it continued after the pandemic ended.

When talking about how their use has changed after the pandemic, Amanda, Hannah and Melissa reflected around how their days have changed and therefore they have a bit less time during the day to spend on TikTok. Amanda said her use was very similar now but might be a little less because she has less time at home. Correspondingly, Melissa said she spent more time on TikTok during the pandemic because she had more time available. Even though the use had gone down a bit, they still use the platform a lot more than they did prior to the pandemic. Hannah said this about the effect of the pandemic on her use of TikTok;

Well, if I hadn't used TikTok during the pandemic, I don't think I would have used it as much as I do now. Because in a way it became entertainment that just continued, and you know it's fun to watch. - Hannah

The only exception to an increase in use during the pandemic was Lukas, who said began to use TikTok when it was released in 2018 and ha not changed his use since then. There are potentially two perspectives to why his use did not increase. Either he was already attached to TikTok after using it for 2 years prior to the pandemic, or as he has the lowest screen time of 21 minutes a day, he is likely not one of the most attached participants in this project. These individual differences between the participants are also important to understand users on TikTok, and that is what I will look into in the next chapter.

6.0 Reflections compared to characteristics

The previous chapter illustrates similarities between the participants, but differences were also prevalent. Therefore, this chapter is a person-centred comparative analysis focusing on the differences in the participants descriptions and reflections around their use of TikTok. To compare the participants, the focus will be on differences within attachment, critical reflections, and understanding of the algorithm. These topics will then be seen in relation to personal characteristics. The chapter is focused on the second sub-question; *What is the relation between critical thinking, attachment, age, and screen time in the way young adults reflect around their use of TikTok?*

I begin the chapter with a detailed description of each participant's reflection around the three topics. Further, I compare these differences by ranging the participants on a scale of low, medium, and high for attachment, critical reflections, and algorithm awareness. The participants place on these scales are then linked with age, screen time, and if they define themselves as socially engaged, to see tendencies in the data.

6.1 Describing the participants

In order to look at the differences between the participants, I present a summary of their descriptions and reflections related to the topics. They are presented in order of age, from youngest to oldest. For each participant, their main signs surrounding attachment, critical reflections, and algorithm awareness is presented.

6.1.1 Hannah – 19 years old and limited critical reflections

Hannah uses TikTok mostly in the evenings, and her use varies depending on the day. She likes how the For You page shows videos she is interested in, and finds inspiration for recipes and workouts from TikTok. She said the platform influences her and she did not think about it while scrolling; "*It just happens, because it is sort of a part of my everyday life*". Further, she described TikTok as a part of her personality which indicates an attachment to the platform. However, she said it easy for her to stop using TikTok and that she does not need a time limit.

In relation to content about the war in Ukraine, she said it is difficult to know what is true on TikTok. She explained that she believed information if she had seen multiple similar videos or if the creator referred to credible sources. In general, Hannah seemed positive to TikTok and

regarding workout content she said it inspires her and she will trust the information if the person looks fit.

When asked about the algorithm, Hannah expressed that she did not know what the algorithm was and had not thought about it in relation to TikTok before. Further, I asked if she had thought about how TikTok could show her videos she was interested in, and she said it might be because of the videos she sends to her friends and the videos they send her.

6.1.2 Amanda – Influenced with some critical reflections

Amanda uses TikTok mostly in the evening, between dinner and falling asleep at night. She said she can get caught up in scrolling on her For You page and feel like she is getting sucked into the screen. Further, she also sees a link between her For You page and her personality. In general, she seemed positive to TikTok; "*It's a fun and entertaining platform, and I think it's really fun that the For You page is so individual for a lot of people.*" Regarding the topics on her feed, she said both fashion videos and lifestyle videos could inspire her and for example affect how she dresses.

In relation to what she called toxic content, she expressed worry for younger users and how they potentially can be influenced. Further, she reflected critically around her own use of TikTok, and said she wanted to use it less in the evening to get better sleep. Amanda was also critical to how she got influenced by videos on her For You page, and said she began thinking twice before agreeing with the content. When she saw a video about a topic she was interested, she could doublecheck with other sources to be sure it was not false information. Amanda said she learned about being critical to sources online through her education, and it has made her more aware of these things. However, when asked about videos regarding the war in Ukraine, she said TikTok was where she got information about what is happening in the world. As she did not read news on other platforms, she said it was nice to get an insight through TikTok. This shows that even though she has critical reflections, she does trust some of the information.

When asked about the algorithm, Amanda said she enjoyed it because she got videos she was interested in and did not think much about it while scrolling, but she also mentioned it was creepy that TikTok knew what she liked.

6.1.3 Thomas – Attached and influenced, but critical

Thomas uses TikTok in multiple short sequences during the day, and compares being addicted to TikTok with nicotine-addiction. If he has other important things to do or wants to be able to participate socially on a trip, he has to delete TikTok to be able to focus. He seemed attached to filling time with the platform, and said he is in a symbiosis with the algorithm. In addition, he showed signs of being influenced by political content on his For You page.

When seeing inappropriate content, Thomas said he reports it, and worries about younger users seeing these videos. Further, he showed critical reflections regarding information on TikTok, and said he is sceptical to the creators; "*I don't have a way to confirm that this person is a doctor, so I'm very sceptical to information I get from TikTok.*" Building on this, he said he will sometimes search for the information on other platforms to confirm it. Regarding food and workout content, Thomas explained that he will look at this type of information from other platforms.

In relation to the algorithm, Thomas seemed aware of how it chooses content based on how he interacts with videos. Because of this, he said he takes advantage of the algorithm and will only like videos he wants to see more of.

6.1.4 Charlotte – attached and positive to TikTok

Charlotte described using TikTok both through the day and at night before falling asleep. She said she is dependent on having something to keep her company, either the TV, music, or TikTok, and will therefore use TikTok while getting ready, being on the toilet, etc. She said she used to have a limit on her phone, but she would ignore the notification, so she removed it. Based on her description of how she uses TikTok, she seemed attached to the platform both to fill time and to scrolling on the For You page, as she said she could watch multiple videos and laugh out loud from all of them. When describing how she would stop watching TikTok, she worded it as when something else gets in the way, not that she wants to stop. It could be relevant to her attachment that she lives alone, as she uses the platform in the evening and at night when she is home. Further, she showed signs of being influenced by TikTok, as she had tested recipes and found inspiration from videos on her For You page.

In relation to the war in Ukraine, Charlotte showed critical reflections about false information and said it is important to use common sense when seeing videos about these topics. Her main

source when it comes to news are newspapers and other legitimate sources. She did state that TikTok was a good platform for her as she had not experienced anything negative, but showed critical reflections regarding how it could be bad for others in a more vulnerable situation. Except from this, she was positive to food and workout content.

When asked what she thought of the personalization of the For You page and the algorithm, she said it was something she enjoyed, and that she was not that critical to it; "*I might be a little too uncritical of sources there, or not that critical when it comes to that. But I haven't really thought that much about it*." Even though she is not critical to the algorithm, she seems aware of some of the algorithm's functions as she gave multiple examples of how she reacts to videos to indicate to the algorithm if she wants more or less of a topic on her For You page.

6.1.5 Jonathan – Very attached and trusting tendencies

Jonathan uses TikTok from after dinner until he falls asleep at night and said; "*I almost need to be reminded that other things exist.*" He defines himself as both captured in the flow of videos and addicted to the platform. It is the first thing he sees in the morning and the last thing he sees before he falls asleep at night. He said he spends a lot of time alone at home, as the kitchen is the only common area where he lives. Further, he described TikTok as a miniature version of society, and said that; "*If I were to walk through the city and just look around, everything I would see, I could see on TikTok as well*." He argued that everything that exists in society, except human contact, can be found on TikTok. Related to this, Jonathan said he gets FOMO (fear of missing out) when he has missed out on content on TikTok. These statements place him as both attached to TikTok and influenced by the content he views.

When defining the topics he sees on the For You page, he mentioned debates about society and current events, especially about news and content related to the war in Ukraine. He described that his first thought when watching content about the war is that it reflects what has happened, and if he is going to question it, the content must be very different from his perception of reality. Further, he mentioned that it is important to doublecheck information from TikTok but was honest about not always doing so himself. On a more critical note, he expressed a worry for younger users on the platform.

Regarding the algorithm, Jonathan said he is aware of the algorithm basing the content he sees on how long he watches videos, but that is something he rarely thinks about when scrolling.

6.1.6 Benjamin – critical but influenced

In the beginning of the interview Benjamin estimated that he spends on average 1 hour on his phone during a day, but the screen time statistics revealed that he spends 3 hours and 37 minutes on his phone, and 1 hour and 2 minutes on TikTok. This difference indicates that he is more attached to his phone than he is aware of. Further, Benjamin seemed influenced on political opinions, workout content and recipes, and he described the platform as addictive.

When it comes to information on TikTok, Benjamin described it as a good way to watch news; "*You don't seek out the news, but you still get news, and I think that's nice.*" He explained how he found out about a mass shooting in the US through TikTok, which he had not seen information about anywhere else. On the other hand, he talked about being critical to information and the importance of paying attention to fake news. In relation to content about the war he said it is important to not believe everything. He also showed worry for younger users in relation to the addictive features of the platform and what he called inappropriate content.

Without being asked, Benjamin mentions how the algorithms shapes his For You page. He seems aware of different aspects with the algorithm and describes it as a positive feature on the platform.

6.1.7 Lukas – aware of the algorithm and critical of TikTok

Lukas showed some signs of attachment to TikTok, such as giving him happiness through his day, and he seemed influenced by his For You page on political topics and work-related content. However, his attachment seems to be related to his phone in general and not specifically TikTok.

Without being asked, Lukas mentioned seeing videos about the war and how that is problematic especially as many users are below 18 years old. He mentioned seeing inappropriate content that he critiqued TikTok for not removing and again expressed worry for younger users. He seemed very aware of fake news on TikTok and talked about this both related to the war, information spread during the pandemic, and workout content. When seeing content such as this he could look for the original source if he was interested in the

topic. Even though he expressed multiple critical reflections, he also talked about satire political content as facts.

Generally, he was critical to the platform and highly aware of the technological aspects of the algorithm. When talking about the algorithm, he said it was alarming to think about how TikTok gathers information about the users; "*It's as if the data or the algorithm knows about your life. So, it's like cool to think about but at the same time scary.*"

6.1.8 Melissa – 26 years old and very critical

Melissa described that she uses TikTok mostly in the evenings, and every now and then when waiting for something to happen. She seemed attached to entertainment from TikTok as she described how she can watch TV and at the same time scroll on TikTok. She has a 1-hour time limit, but occasionally ignores the notification.

As the only participant who looked at the terms and conditions when downloading TikTok, she had multiple critical reflections. She read through parts of the terms and conditions, and because she wanted to protect her privacy, she restricted TikTok's access to her camera and microphone. Regarding the war, she believed it is good to have content related to society on TikTok, but that it can be difficult to be critical to it. Personally, she was critical to these types of videos and will search on other platforms if she questions the information. When it comes to workout content, she likes to be inspired by TikTok but will again search other places to be sure the information is correct.

She seemed aware of how the algorithm works and how it gives her more of the videos she spends longer time watching. In addition, she is critical to the function of the algorithm; "*I think that it's designed to keep me there, so it notices that I'm interested in something and will show me more so that I'll stay on TikTok for a longer time.*"

6.2 Comparing differences in attachment, critical thinking and algorithm awareness

Based on the descriptions of each participant, they are placed on a scale of low, medium, and high for each category; attachment, critical reflections, and algorithm awareness. The scale for each category is relational and based on theory, previous research, and relevant concepts (see chapter 4.3.2). The scales are presented in Table 2 together with the participants age, screen time, and social engagement. In this project, gender could have been a factor when it comes to the categories, however the only specific difference was that three of the male participants mentioned getting inappropriate content on their For You page. Within the categories and personal characteristics there seems to be no clear connections with gender. Therefore, I will not include gender in the comparing of the characteristics and categories.

Fictive name	Age	Total screentime (average per day)	Screentime on TikTok (average per day)	Socially engaged	Attachment	Critical reflections	Algorithm awareness
Hannah	19	3 hours, 4 minutes	47 minutes	No	Medium	Low	Low
Amanda	19	6 hours, 49 minutes	1 hour, 44 minutes	No	Medium	Medium	Low
Thomas	20	Reflection: 5-7 hours*	Reflection 3 hours*	Yes	High	Medium	Medium
Charlotte	21	7 hours, 17 minutes	1 hour, 9 minutes	Yes	High	Medium	Medium
Jonathan	23	5 hours, 27 minutes	3 hours, 20 minutes	No	High	Low	Medium
Benjamin	23	3 hours, 37 minutes	1 hour, 2 minutes	Yes	Medium	Medium	Medium
Lukas	24	6 hours, 57 minutes	21 minutes	No	Low	High	High
Melissa	26	3 hours, 50 minutes	1 hour, 1 minute	Yes	Medium	High	High

Table 2: Comparison of participants.

*Thomas did not have a screen time function on his phone, the numbers are his estimates.

Tendencies become visible when looking at the categories in connection with the personal characteristics. With a total of 6 different aspects that can be compared with each other, I will focus on the most prominent links. First is the link between attachment and screen time. Lukas is the only participant categorized with low attachment and his screen time is the lowest with 21 minutes on TikTok. The participants with medium attachment have a screen time on TikTok between 47 minutes and 1 hour, 44 minutes, with an average around 1 hour. Among the participants with high attachment, screen time is substantially higher; Jonathan and Thomas both have around 3 hours, while Charlotte has 1 hour, 9 minutes. Jonathan is the participant with highest screen time, and he shows high attachment. He spends 61 percent of his time on the phone on TikTok. Compared to Lukas with the lowest screen time and lowest attachment, he spends only 5 percent of his time on the phone on TikTok. This indicates that a higher screen time on TikTok is correlated with high attachment.

Building on the difference between Lukas and Jonathan as least and most attached, it is interesting to see if this correlates with critical reflections. Lukas is high on critical reflections, while Jonathan is low, which could suggest a link. However, Hannah and Melissa are both medium on attachment, but Hannah is low on critical reflections and Melissa is high. Social engagement is another characteristic that could be linked to critical reflections. Among the participants that are not socially engaged, they score both low, medium, and high on critical reflections. In comparison, the participants that are socially engaged have medium and high critical reflections, but there is no clear tendency.

Looking at critical reflections in connection with age indicates a tendency where the older participants are more critical. Going back to the example of Hannah and Melissa, Hannah is 19 years old, and Melissa is 26 years old, which could explain their levels of critical reflections. This could be linked to more experience with media in general and a more mature use of TikTok as they get older. Melissa and Lukas have high critical reflections, and they are the oldest participants. The only exception to this link is Jonathan, who is 23 years old and has low critical reflections. When looking at algorithm awareness, it becomes even clearer that there is a connection with age. The two youngest participants are low on algorithm awareness, while the two oldest participants are high on algorithm awareness. Critical reflections and algorithm awareness have been separated as they concern different topics, but they are both signs of the participants being critical to TikTok. Therefore, it is relevant to look at these categories together, which indicates a clear tendency between age and being critical to TikTok.

In this comparative analysis I have simplified the participants reflections to be able to compare them. It is important to keep in mind that even though some participants scored low on attachment, high on critical thinking, and high on algorithm awareness that it is only in relation to each other. It seems all the participants to some degree are attached to their For You page, uncritical to information, and unaware of how the algorithm is shaping the content they watch.

7.0 Discussion

In this thesis, I have explored how young adults reflect around and perceive themselves as users of the platform TikTok. In the first analysis chapter I looked at the participants relation to TikTok with a focus on signs of attachment. This has shown that they describe themselves as addicted to TikTok and will use the platform as entertainment to pass time. When scrolling on the personalized For You page, they get captured in the flow of videos. The participants describe a connection between their personality and TikTok, and some even call the relation to the For You page a symbiosis. Further, their reflections indicate that the For You page works as a filter bubble. Within the filter bubble they watch videos adapted to them, and they show signs of being influenced by this content. The first analysis chapter ended with looking at the pandemic. It indicated that the participants shaped a relation to TikTok during the time with less human interaction and continued this relation after the pandemic ended.

In the second analysis chapter, I looked at how the participants reflected differently around their use of TikTok. The focus was on attachment, critical reflections, and algorithm awareness. Looking at their reflections, the participants all seemed attached to TikTok to some degree. Further, many have critical reflections around political content and news, but still seemed to be influenced by this content. When it came to the algorithm, the participants had different levels of awareness around how it shapes the content they watch, and only a few of them were critical to it. Placing the participants on a scale for each of these topics and comparing their levels to personal characteristics indicated two tendencies. The first is a link between screen time and attachment, where more time spent on TikTok correlated with higher levels of attachment. The second tendency is a link between age and being critical to TikTok. The older participants showed more critical perspectives to TikTok, both within critical reflections and algorithm awareness.

The findings in this study can be separated into two parts. In the first part, I discuss them related to the research question. I focus on users' relation to the For You page with signs of attachment and look at how the signs correlate with the aspects of TikTok attachment. As a part of this, I look at how the pandemic, screen time, personalization, and addiction can be seen in connection with attachment to TikTok. In the second part, I discuss the findings in relation to the third sub-question, where I look at how the users' reflections contextualise TikTok as a medium. I look at the findings together with McLuhan's theory of "the Medium is the Message" and the concept of filter bubbles. As TikTok is a relatively new topic within

research, this part applies the findings to contribute to understanding TikTok's implications on users and society.

7.1 Users' relation to the For You page – characterized by attachment

Looking at the participants signs of attachment in connection with the aspect of TikTok attachment I assembled in the theory chapter (Kim et al., 2016; Meschtscherjakov et al., 2014; Sitnik-Warchulska et al., 2023; Zimberoff & Hartman, 2002), it becomes visible that the participants are attached to TikTok. Many of the participants spend a lot of time on TikTok during their day and in the evening, some even use it all the way until they fall asleep. A few of them describe deleting the platform, but then missing it and reinstalling it. This acts as a sign of discomfort when they are separated from the platform over a longer period of time. Further, this is connected to viewing the platform as linked to oneself, which is seen when some of the participants link TikTok to their personality. Another sign is if TikTok is used to cope with the real world and give positive feelings. This can be seen through descriptions of using TikTok as company and getting joy during the day from watching the videos. The participants seem to use TikTok when they are bored or alone instead of seeking company in the real world, which indicates a connection to the virtual world. Further, trust was defined as a sign of TikTok attachment. Believing the information from videos on TikTok and getting influenced acts as an indication of trust in the platform. This is seen through the participants descriptions of following recipes, being inspired to work out, changing the way they dress, or being influenced by news related and political content.

In the assembled aspect of TikTok attachment, detachment acts as a sign of not being attached to the platform. In the participants descriptions this is seen through reflections where they distance themselves from TikTok and are critical. Signs such as criticising the platform for inappropriate content, being critical to the algorithm, or not trusting content about the war in Ukraine acts as signs of detachment. All the participants show some of these signs, but in varying degrees. However, these signs are shown through reflections, while signs of attachment became visible when they described their actions. The relation between attachment and detachment is difficult to determine based on the data collected in this project. As the interviews were not conducted with a plan of looking at attachment, the participants have not been asked questions that can separate thoughts, feelings, and emotions. Making a clear distinction of attachment is therefore difficult without a psychologically conducted

interview as the base, however the signs from the users' reflections and descriptions are interesting. The signs indicate that attachment is prevalent in relation to TikTok, and especially the For You page.

The last aspect of TikTok attachment is that the bond can evolve over time and vary in strength. Looking at how the participants differ in their attachment to TikTok illustrates that the bond can vary in strength. The scale of low, medium, and high attachment illustrated the differences within the sample, but all the participants showed some signs of attachment. The variation of strength can also be seen within each participant's use of TikTok over time. The way the participants described their relation to TikTok before, during, and after the COVID-19 pandemic illustrates an evolvement of their attachment. Almost all of them described how the time at home during the pandemic had increased their use of TikTok, and that their habits of using the platform continued after the pandemic ended. This aligns with how literature describe an increase of TikTok users that occurred during the pandemic (Feldkamp, 2021; Kaye et al., 2022; Wallaroo, 2023). Further, it should be seen in connection with Norway having the highest increase of TikTok users during this time with 248,7 percent (Statista, 2020). The participants descriptions give a story to this high number, but as the sample is only young adults in Norway, it is difficult to say what made the Norwegian context different from other countries. However, the pandemic can be seen as a crisis that strengthened the attachment bond users have with TikTok. This makes it interesting to question if users would have developed such strong attachment to TikTok without the pandemic.

Another aspect that is connected to users' attachment is their screen time. The tendency of high screen time being connected to high levels of attachment indicates a correlation. However, it is difficult to determine what is the cause and effect in this correlation. One perspective is that being attached to TikTok makes users spend more time on the platform. Looking at it from the other direction, spending more time on TikTok can make the users more attached. From previous research on TikTok's algorithm, it is known that the For You page becomes more personalized the more time users spend scrolling (Boeker & Urman, 2022). Further, the personalization on TikTok can be a feature that affects attachment, as described by Sitnik-Warchulska et al. (2023) in their concept of E-attachment. They found that personalization in the virtual world could increase users' attachment. Looking at screen time and attachment with this in mind, there might be a link where users get more attached from spending more time on TikTok. It is difficult to determine which way this correlation

points. The factors could also be affecting each other and be part of how the attachment bond evolves over time.

As mentioned, the personalization on TikTok can increase users' attachment. The way participants describe getting captured in the flow of scrolling because the videos match their humour and interests are an indication on the effect of the algorithm's personalization. Further, the personalization can be seen in connection with how some of the participants link their For You page to their personality. Seeing the platform as an extension of themselves, and linking it to their personality, is a sign of attachment (Meschtscherjakov et al., 2014). Combining this with results from previous research on TikTok's algorithm indicates that the technology behind the artificial intelligence algorithm is part of why users get attached (Fan & Hemans, 2022).

Two other factors that seem to be connected is attachment and addiction. In the participants description of their relation to TikTok, addiction is mentioned by many. This link is also made in previous research by Zhang et al. (2019). It is difficult to know how they relate, if one is leading to the other or if they are developing side by side. Zhang et al. found that site attachment had positive influence on addiction to TikTok. This perspective can explain why the attached users also feel addicted, as having a bond to TikTok can make them feel addicted to using the platform. Looking at addiction as an outcome of attachment could indicate that the more users are attached to TikTok, the more likely they are to get addicted. Among the participants in this study, the users with high attachment have all talked about feeling addicted to TikTok. However, the participant with lowest attachment also mentioned TikTok was addictive. Another aspect is that even though the participants describe themselves as addicted, it is difficult to know if their addiction is in line with how the term is defined in literature, or if saying "I'm addicted" has become normalised to use in situations where the relation is not actually an addiction. This makes it difficult to conclude with a direct relationship between attachment and addiction, but there seems to be an interesting connection.

7.2 TikTok as a medium – influencing filter bubbles

Viewing content on TikTok is a way of receiving information, whether it is about a new coffee trend, a good book, a business hack, or the war in Ukraine. When looking at TikTok as a medium, the short-video content produced by users is the medium within TikTok that gives TikTok a message. Without these videos, TikTok would be an empty platform with no

content to entertain users. Regardless of the message in the videos, TikTok as a medium is in itself a message when viewed in the perspective of Marshall McLuhan (1964). In the view of McLuhan, the way information is sent and received in a society alters the relation we have to each other and to ourselves. The question is then how TikTok as a medium operate in the way the participants describe their relation to the platform.

Within the message that TikTok as a medium sends out, is the technology the platform is built upon. This is the use of the artificial intelligence algorithm to create personalized experiences for the users. In this view, it is not the specific content that the users are watching that is the message, but the fact that every user is watching different personal feeds of videos. With the reflections of the participants, it becomes visible that the For You page acts as a filter bubble. Every participant has described a different For You page, which is aligned with the research Boeker and Urman (2022) did on TikTok's algorithm. They highlighted that the personalization on the For You page leads to filter bubbles.

Eli Pariser (2011) introduced the term filter bubble, and described it as personal, invisible, and something users do not choose to enter. The users' reflections indicate that the For You page have all of those dynamics. It is personal as they all have different feeds that match their interests and views. It is invisible and something they do not choose to enter as they seem to not be aware of it. This is further shown by how some of them describe the topics on their For You page as popular trends in society, even though no one else mentioned these topics. These statements suggests that the content of the filter bubbles influence the participants.

All the participants had reflections that indicated they were influenced by videos on TikTok. It seemed like the topics they were influenced by depended on their filter bubble. Some talked about political insights they had acquired from TikTok, while others were influenced to try a new recipe, work out differently, or test out a life hack. There is an argument to be made that it does not matter if people find their recipes through TikTok or by reading in a cookbook, but by looking at what this symbolizes it becomes more significant. It is an indication of how the For You page can influence users to make choices, and the things they are influenced to do is decided by the algorithm. The examples mentioned in this thesis are only the ones the participants remembered. Because they struggled to remember the videos they had watched earlier the same day as the interviews, it is unlikely that they were able to remember all the videos that had influenced them. Therefore, one can ask if the For You page influence the participants even more than they were able to describe.

Based on the analysis in this project, it becomes visible that TikTok differs from the traditional social media platforms. One of the most apparent functions of social media is the design that enables users to connect with others (Aichner et al., 2021). However, the participants in this project are not using TikTok to connect with others, but to be entertained by the personalized feed on the For You page. TikTok has features that can be utilized to connect with others, but the way the participants describe their use of TikTok indicate that the use of those features are limited. For example, on the Following page users can view videos in the traditional social media way based on their network. However, the participants descriptions show that they do not spend time scrolling on the Following page, they prefer watching videos from unknown creators that the algorithm chooses. This aligns with how Bhandari and Bimo (2020) defines an "algorithmized self" on TikTok, rather than a "networked self" as on social media. Further, these findings support the definition of TikTok as an entertainment platform instead of a social media platform.

TikTok is used as entertainment to pass time if the participants are bored or want some company. When using the platform as entertainment, the participants seem to have different levels of critical reflections regarding the content they watch. They are looking for entertainment when they open the platform, but the For You page contains anything from humour sketches to political content and updates on major events in society. Based on the comparison of the participants, age seems connected to being critical to TikTok. The sample varies from a trusting 19-year-old to a sceptical 26-year-old. Applying this insight when looking at TikTok as a medium indicates that younger users trust more of the information they get through the platform.

Another aspect of TikTok as a medium is how the users are attached to the platform. The personalization the algorithm does on the For You page seems to be a reason for the users' attachment. Further, the algorithm is a substantial part of what makes TikTok different from other digital media platforms. The algorithm creates the filter bubble, and it creates attached users through personalization. This makes it an important aspect of what defines TikTok as a medium. Combining Marshall McLuhan's theory on how "the Medium is the Message" with viewing TikTok as a filter bubble through Eli Pariser's concept, TikTok can be understood as a medium that influences users through personalized content. The algorithm becomes the glasses users view the world through. Further, as a medium TikTok can possibly introduce a new way of obtaining information.

What can potentially be the implications of young users being attached to the algorithm on TikTok and trusting information they get through their filter bubble? And further, what does this mean for the development of society? The findings in this thesis do not answer these questions, but they point at the importance of asking them.

7.3 Critical perspectives to the project

As a researcher, it is important to be aware of how methodological choices and aspects can affect the results of a research process (Ryen, 2002, p. 177). The project has indicated interesting tendencies, but the quality of these depends on factors such as reliability and validity (Ryen, 2002, p. 179). The project's reliability reflects if it is trustworthy, precise, and would give the same results if it was conducted again by a different researcher. Given my role as the researcher and how the qualitative interview can be seen as a conversation that constructs knowledge, factors can have affected the results in such ways that conducting the project again could give different answers. An example is my previous views and knowledge about TikTok, which potentially has affected the follow up questions I have asked in the explorative interviews. With limited previous knowledge, it is difficult to compare the results to other studies, and further difficult to know if the same results would be found by other researchers.

The validity of the project reflects how relevant the data is for the questions I have researched, if the results reflect the sample, and if the results can be used to look at other situations outside of the sample. Given the explorative design, I did not know exactly what I was researching before having the interviews. As I chose attachment as framework after the data was collected, it is possible the data did not in the best possible way reflect the users' attachment. Similarly, the aspects of critical reflections and algorithm awareness was also chosen after the interviews. If I had designed the interview guide based on the topics that became the sub-questions, the results could have been different. This is further linked to if the results reflect the sample. With the explorative design, every interview has been different. The questions I have asked has depended on the reflections of the participants. Therefore, it is questionable if they are a good basis for a comparative analysis. It is also questionable if the scales indicate the correct placement of the participants, as I did not ask the same questions to everyone in order to place them on the scales. Further, the ages of the participants did not give a balanced representation. The women varied from 19 to 26, while the men varied from 20 to

24, and it was not the same number of participants within each age. If the scope of the thesis had allowed it, having a man and a woman within each age would probably give more valid results.

Another aspect that is interesting regarding the project's validity is how the recruitment process has been reflected in the participants descriptions. 4 participants reached out when I posted on relevant social media platforms, and 4 participants were recruited through network. The first 4 participants have been the richest interviews, as they have been more interested in the topic and had more stories to tell. The three most attached participants are within this group, and so is the least attached participant who had most knowledge and interest in the platform. The 4 participants who were recruited through network were all medium in attachment. Therefore, it is questionable how well the sample answers the questions of how young adults in Norway use TikTok. The 4 first participants most likely represent people that are extra interested in TikTok, while the 4 participants recruited through network might be closer to the average user. Even though this weakens the validity, it can also be seen as giving insight to different users which increase the diversity within the sample. However, it is difficult to know the exact reason to these aspects and how it has affected the results.

The internal validity of the project affects the external validity and if the results can be generalized to describe users of TikTok. With the explorative approach to a sample of 8 participants and critical aspects within both reliability and internal validity, it is questionable to generalize the findings. However, that was not the purpose of this project as. Despite the critical aspects of the project, it has fulfilled the goal of exploring a topic with limited previous knowledge and pointing at interesting tendencies within how young adults reflect around their relation to TikTok. The findings can further be used in the sense that they give an insight to the topic and can be used to as a starting point for further research.

7.4 Interesting tendencies from the project - further research

Explorative research such as this thesis can be used to lay the groundwork for further research on TikTok, as it is a relatively new topic within academic research. The purpose of this project has been to get an insight into how young adults use TikTok, and the tendencies in the findings can be a starting point for more specific research regarding the topic. At the end of my work with understanding users of TikTok, I am left with more questions than when I began the project. However, I believe that my ability to ask questions regarding this topic has

improved significantly. Therefore, I want to discuss some of the questions and curiosities this project has given me, that I believe would be important and interesting to research further.

First of all, users' relation to TikTok has shown to be complex. The differences between the participants indicate that there is not a simple definition of a TikTok user. There were variations in the participants attachment, which would be interesting to research related the users' attachment styles. The attachment bond could be interesting to understand further from a psychological perspective to be able to separate thoughts, feelings, and emotions within the users' relation to TikTok. Further, as the findings indicate a correlation between screen time and attachment, it could be interesting to research if TikTok's technological design is the reason for attached users, especially the personalizing artificial intelligence algorithm.

Based on the categories of attachment, critical reflections, and algorithm awareness it could be useful to develop a theoretical framework with scales that could further be applied to research users. This would make it possible to compare large quantities of users with different personal characteristics, which could make it possible to understand if there is a gendered difference in the use of TikTok. With a quantitative approach some interesting aspects to research could be the link between attachment and screen time, and the link between age and critical reflections, which could give an insight to the general tendencies of these factors. Focus groups with young adults would also be interesting, as it seems like they enjoy discussing TikTok and are open to talk about the way they use the platform. It could be interesting to see if new understandings could be found if they reflect on for example critical perspectives together.

This thesis has focused on the individual user's relation to TikTok, but it could be interesting to look at how TikTok operates within groups in society. Using TikTok as a topic of conversation to gain new friends and discussing topics from TikTok with friends has been mentioned in the interviews. One participant even described not being able to engage in conversations with friends and feeling FOMO (fear of missing out) if he was not updated on what was happening on TikTok. This makes it interesting to understand TikTok in the context of socialising in the real world, and it is relevant to understand if the filter bubbles affect how users socialise. Relying on being updated on happenings in the virtual world to participate in the real world is an interesting development in society.

Building on this, the findings suggest it is important to understand the relation that can develop between humans and digital objects. What is the effect of a society that relies on

technology? Does the attachment to a virtual world weaken the attachment to the real world? How does this affect young users' perception of reality and fiction? How does it affect users that artificial intelligence is used to determine the content they watch? Digital platforms will likely be part of the future and it is interesting to research what that implies. As TikTok's design is being implemented by competing platforms, this way of using algorithms is becoming more prevalent, and therefore more important to understand the consequences of. In addition, findings indicate a correlation between the pandemic and users' attachment to TikTok. This suggests that research on how the pandemic has affected users' relation to technology is needed.

Further, it is interesting to research TikTok in a political and knowledge generating context. As a personal digital echo chamber, the filter bubble shows the potential of political influence through TikTok. It becomes the users view on the world, and the information can affect how they learn about other people, beliefs, values, and countries. When looking at TikTok as a medium, one can ask if it has the power to influence political elections? What are the consequences on how we think about ourselves and others? What does it mean for the development of society that young adults are attached to the algorithm on TikTok?

In relation to these questions, the tendency of younger users being less critical to information on TikTok needs further research. The youngest participants in this study were 19 years old, but research has shown that 40 percent of children between the ages of 9 and 11 use TikTok, and 79 percent between the ages of 12 and 14 (The Norwegian Media Authority, 2022a). The age limit on TikTok is 13 years old, but the statistics suggest even younger children have TikTok. If the tendency of younger users being less critical also reflects children below 18 years old, it could be useful to address this age limit and potentially increase it. Some participants mentioned inappropriate content on TikTok, which also suggests it is important to research younger users of the platform and how it affects them. In relation to this, research on how we can provide information to children and young adults about how they can use TikTok in a safe and critical way could be relevant. One of the 19-year-olds in the study explained how she had learned about being critical to media in her education, and that helped her reflect on her use of TikTok. This suggests that researching the potential of school programs teaching critical use of TikTok and other platforms adapting a similar design could be useful.

Finally, interdisciplinarity seems to be needed to research users of TikTok. In addition to sociology, I believe psychology, technology, political science, education, and media studies could bring interesting perspectives to understanding TikTok.

8.0 Concluding remarks

The findings in this thesis suggests a complex relation between users and the entertainment platform TikTok. There is no simple definition of users' relation to TikTok, but rather multiple aspects that characterise the way young adults use the platform. An attachment bond between the users and the For You page has been prevalent in this study. However, the strength of the bond varies between the participants. There seems to be several factors that contribute to the attachment relation, such as the personalization of the For You page, an endless flow of videos, and the amount of time users spend scrolling. In the relation to TikTok, the users' reflections suggest they are both addicted and influenced. Given the short-video format on the For You page, the average user watches more than 200 videos per day that are adapted to their interest and identity. This creates a filter bubble with more than 200 pieces of information that has the potential to influence the users if they are not critical. As this study suggests a correlation between age and critical reflections, TikTok has an even greater potential to influence young users and become a virtual lens they view the world through.

Applying these findings to view TikTok as a medium suggest a potential for the platform to influence users within their personal filter bubbles. The users get attached to an algorithm-driven platform that gives them personalized content, and further they show signs to trust this content. Users open the platform looking for entertainment but scroll in a feed where they are repeatedly engaging with themselves. This feature can amplify their excising interest, instead of being a platform where they get new viewpoints through social interactions. Therefore, defining TikTok as a medium for sharing information brings forward the question of how TikTok potentially shapes our society.

The questions that arise from the findings are perhaps the greatest contribution of this thesis. I have found interesting insight to how young adults reflect around their use of TikTok, and this has given a user perspective to the existing technological understanding of the platform. Further, this suggests a need to understand the potential comprehensive implications of the technology. In a Norwegian context, the thesis has offered a perspective to the rapid growth of TikTok-users during the pandemic, where the time spent at home seems to have affected how young adults develop relations to virtual worlds. Within the field of studying digital platforms, the contribution of this study is the need to research TikTok separately from social media platforms. The artificial intelligence algorithm on the For You page separates TikTok from platforms based on social networks. With the increasing popularity of TikTok,

traditional social media platforms have adapted similar algorithm-driven features. Therefore, the insight from this study is transferable to look at the change from connecting with friends, acquaintances, and celebrities on digital platforms to interacting with artificial intelligence. Further, this makes it even more important to fully understand how the algorithm-driven feed potentially can change the way we obtain information, understand ourselves, and connect with others in society.

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Appendix

Appendix 1: Poster for recruitment

Innledende spørsmål:

- Hvor gammel er du?
- Hva er din nåværende livssituasjon?
- Vil du si du bruker mye tid på mobilen?
    - Hvis du skulle gjette, ca. hvor mange timer om dagen?
- Hvilke sosiale medier foretrekker du å bruke?
    - Kan du rangere de sosiale mediene du bruker ut ifra hvilke du bruker mest?
    - Hva bruker du de ulike til?
        - Kommunisere med venner, dele, se på innhold?
    - Hvilken app tror du at du bruker mest tid på inne på mobilen?

Bruken av TikTok:

- Kan du ta meg gjennom hvordan du bruker TikTok? Hva gjør du inne på appen?

Punkter/temaer:

- Ulike sider på appen
    - Det er flere sider og funksjoner, hvilke bruker du mest?
    - For You til følger siden, begynner du å følge folk du finner på For You page? Søker på folk/temaer?
- *Videre vil fokuset være på innholdet på for you page*
- Temaer og påvirkning
    - Hva slags videoer får du opp? Noen spesielle temaer?
        - Havne på en «side»?
        - Hvordan påvirker de deg?
        - Har du et eksempel på noe du har lært på TikTok som du bruker i hverdagen?
    - Hva er du ute etter når du går inn på appen?
    - Synes du det du ser er spennende? Går du lei?
    - Innholdet, er det annerledes enn på andre sosiale medier?
    - Husker du det du har sett? F.eks sist du brukte appen

- Pandemien
    o Vet du ca. når du begynte å bruke appen?
    o Brukte du TikTok annerledes før, under og etter pandemien og
      nedstengningene?
        ▪ Tror du pandemien har påvirket hvordan du bruker TikTok, evt
          hvordan?
- Hvilken tid på dagen bruker du TikTok mest?
    o Har du brukt/bruker tidsbegrensning?

Tanker rundt TikTok:

- Hvordan snakker du om TikTok med vennene dine? (med foreldre?)
    o Om videoer, om appen, om algoritmer?
    o Er det en positiv tone?
    o Snakker de noe om kritikk?
- Forhold til informasjon om ulike temaer, eksempler:
    o Info om krigen mellom Ukraina og Russland
    o Om kosthold eller trening
    o Former denne infoen dine meninger om temaet? Er den troverdig?
- Forholdet til algoritmen
    o Leste du gjennom informasjonen om appen før du godtok når du først begynte
      å bruke den?
    o Hva tenker du det betyr at TikTok bruker algoritmer for å velge ut innholdet du
      ser?
    o Tenker du på at appen er algoritmestyrt når du bruker den?
    o Tenker du over hvordan dine handlinger inne på appen påvirker hva du får opp
      senere?
    o Hvordan bruker du liker, deler og kommenterer funksjonene? Tenker du over
      hvordan dette påvirker det neste du får opp?
    o Kjenner du til «ikke interessert» funksjonen inne i appen?
        ▪ Bruker du den, evt hvordan?
    o Har du noen gang prøvd å endre innholdet du har på fyp?
    o Er det noe du scroller vekk med en gang, blokkerer, rapporterer etc?

- Politikk:
    - o Vil du beskrive deg selv som samfunnsengasjert?
    - o Ser du politisk informasjon/innhold på TikTok? Hva tenker du om det?
    - o Kildekritikk, stoler du på infoen? Sjekker andre steder? Ser på avsender?

Inne på mobilen:

- Sjekke statistikken for skjermtid sist uke:
    - o Hvor mange timer i snitt per dag på mobilen?
    - o Hvor mange timer totalt på mobilen i uka?
    - o Hvor mange timer i snitt per dag på TikTok?
    - o Hvor mange timer totalt i uka på TikTok?
    - o Hvor på listen over mest brukte apper ligger TikTok?
    - o Har du hatt/har en grense på hvor lenge kan bruke TikTok per dag?
        - ▪ Hvis ja, holder du denne?
- Når lastet du ned TikTok?

Avsluttende spørsmål:

- Er det noe annet du vil nevne i forhold til det vi har snakket om?

Vil du delta i forskningsprosjektet «Unge voksne og TikTok»?

Dette er et spørsmål til deg om å delta i et forskningsprosjekt hvor formålet er å undersøke unge voksnes forhold til TikTok. I dette skrivet gir vi deg informasjon om målene for prosjektet og hva deltakelse vil innebære for deg.

Formål

Prosjektet har som formål å undersøke unge voksnes forhold til sosiale medier og spesielt appen TikTok. Prosjektet vil se på hvordan unge voksne bruker TikTok, hva de ønsker å få ut av appen og hva de tenker rundt egen bruk av appen. Forskningsprosjektet er en del av en masteroppgave i sosiologi ved Universitetet i Agder.

Hvem er ansvarlig for forskningsprosjektet?

Universitetet i Agder er ansvarlig for prosjektet.

Hvorfor får du spørsmål om å delta?

Du får spørsmål om å delta i studien fordi du er innenfor aldersgruppen 18-29 år og har opplyst at du bruker appen TikTok i din hverdag. Dette infoskrivet er en oppfølgning til at du selv har tatt kontakt gjennom utlysningen til prosjektet. Til sammen vil rundt 8-10 personer få spørsmål om å delta i prosjektet.

Hva innebærer det for deg å delta?

Hvis du velger å delta i prosjektet innebærer det et intervju på ca. 1 time. Intervjuet vil inneholde spørsmål om ditt forhold til sosiale medier/TikTok og hvordan du bruker appen i din hverdag. Det vil også bli spørsmål om å se på skjermtid-statistikk om bruk av TikTok inne på din telefon.

Under intervjuet vil jeg ta notater og lydopptak. Dette lydopptaket skal kun jeg høre på i etterkant. Opplysningene som samles inn vil kun jeg og min veileder ha tilgang på, og de vil bli slettet når prosjektet er ferdig.

Det er frivillig å delta

Det er frivillig å delta i prosjektet. Hvis du velger å delta, kan du når som helst trekke samtykket tilbake uten å oppgi noen grunn. Alle dine personopplysninger vil da bli slettet. Det

vil ikke ha noen negative konsekvenser for deg hvis du ikke vil delta eller senere velger å trekke deg.

Ditt personvern – hvordan vi oppbevarer og bruker dine opplysninger

Vi vil bare bruke opplysningene om deg til formålene vi har fortalt om i dette skrivet. Vi behandler opplysningene konfidensielt og i samsvar med personvernregelverket.

- Ved Universitetet i Agder vil jeg (student) og min veileder være de eneste som har tilgang til opplysningene.
- For å sikre at ingen uvedkommende får tilgang på dine personopplysninger vil navn og kontaktopplysninger erstattes med en kode som vil lagres på egen navneliste et annet sted enn den innsamlede dataen. Dine opplysninger lagres på en sikker server gjennom Universitetet i Agder, hvor ingen andre enn jeg og min veileder kan få tilgang.
- I publikasjonene fra dette forskningsprosjektet vil det ikke være mulig å kjenne igjen hvem som har deltatt. Resultatene som legges frem i masteroppgaven vil ikke kunne knyttes til enkelte personer.

Hva skjer med personopplysningene dine når forskningsprosjektet avsluttes?

Prosjektet vil etter planen avsluttes når masteroppgaven leveres i juni 2023. Etter prosjektslutt vil datamaterialet med dine personopplysninger slettes.

Hva gir oss rett til å behandle personopplysninger om deg?

Vi behandler opplysninger om deg basert på ditt samtykke.

På oppdrag fra Universitetet i Agder har Personverntjenester vurdert at behandlingen av personopplysninger i dette prosjektet er i samsvar med personvernregelverket.

Dine rettigheter

Så lenge du kan identifiseres i datamaterialet, har du rett til:

- innsyn i hvilke opplysninger vi behandler om deg, og å få utlevert en kopi av opplysningene
- å få rettet opplysninger om deg som er feil eller misvisende
- å få slettet personopplysninger om deg
- å sende klage til Datatilsynet om behandlingen av dine personopplysninger

Hvis du har spørsmål til studien, eller ønsker å vite mer om eller benytte deg av dine rettigheter, ta kontakt med:

Universitetet i Agder ved Lina Malene Larssen på epost (linal@student.uia) eller telefon (46 94 61 60) eller Alexander Ruser på epost (alexander.ruser@uia.no) eller telefon (41 10 98 83)

Vårt personvernombud: Trond Hauso, epost: personvernombud@uia.no

Hvis du har spørsmål knyttet til Personverntjenester sin vurdering av prosjektet, kan du ta kontakt med:

Personverntjenester på epost (personverntjenester@sikt.no) eller på telefon: 53 21 15 00.

Med vennlig hilsen

Lina Malene Larssen   Alexander Ruser
Student   *Veileder*

Samtykkeerklæring

Jeg har mottatt og forstått informasjon om prosjektet *Unge voksne og TikTok*, og har fått anledning til å stille spørsmål. Jeg samtykker til:

- å delta i intervju

Jeg samtykker til at mine opplysninger behandles frem til prosjektet er avsluttet

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(Signert av prosjektdeltaker, dato)

Vurdering av behandling av personopplysninger

Referansenummer

403398

Vurderingstype

Standard

Dato

04.11.2022

Prosjekttittel

Digitalisering: unge voksne og TikTok

Behandlingsansvarlig institusjon

Universitetet i Agder / Fakultet for samfunnsvitenskap / Institutt for sosiologi og sosialt arbeid

Prosjektansvarlig

Alexander Ruser

Student

Lina Malene Larssen

Prosjektperiode

01.10.2022 - 30.06.2023

Kategorier personopplysninger

- Alminnelige
- Særlige

Lovlig grunnlag

- Samtykke (Personvernforordningen art. 6 nr. 1 bokstav a)
- Uttrykkelig samtykke (Personvernforordningen art. 9 nr. 2 bokstav a)

85

Behandlingen av personopplysningene er lovlig så fremt den gjennomføres som oppgitt i meldeskjemaet. Det lovlige grunnlaget gjelder til 30.06.2023.

Kommentar

OM VURDERINGEN

Personverntjenester har en avtale med institusjonen du forsker eller studerer ved. Denne avtalen innebærer at vi skal gi deg råd slik at behandlingen av personopplysninger i prosjektet ditt er lovlig etter personvernregelverket.

Personverntjenester har nå vurdert den planlagte behandlingen av personopplysninger. Vår vurdering er at behandlingen er lovlig, hvis den gjennomføres slik den er beskrevet i meldeskjemaet med dialog og vedlegg.

VIKTIG INFORMASJON TIL DEG

Du må lagre, sende og sikre dataene i tråd med retningslinjene til din institusjon. Dette betyr at du må bruke leverandører for spørreskjema, skylagring, videosamtale o.l. som institusjonen din har avtale med. Vi gir generelle råd rundt dette, men det er institusjonens egne retningslinjer for informasjonssikkerhet som gjelder.

DEL PROSJEKTET MED PROSJEKTANSVARLIG

For studenter er det obligatorisk å dele prosjektet med prosjektansvarlig (veileder). Del ved å trykke på knappen «Del prosjekt» i menylinjen øverst i meldeskjemaet. Prosjektansvarlig bes akseptere invitasjonen innen en uke. Om invitasjonen utløper, må han/hun inviteres på nytt.

TYPE OPPLYSNINGER OG VARIGHET

Prosjektet vil behandle alminnelige personopplysninger og særlige kategorier av personopplysninger om politisk oppfatning frem til 30.06.2023.

LOVLIG GRUNNLAG

Prosjektet vil innhente samtykke fra de registrerte til behandlingen av personopplysninger. Vår vurdering er at prosjektet legger opp til et samtykke i samsvar med kravene i art. 4 nr. 11 og 7, ved at det er en frivillig, spesifikk, informert og utvetydig bekreftelse, som kan dokumenteres, og som den registrerte kan trekke tilbake.

For alminnelige personopplysninger vil lovlig grunnlag for behandlingen være den registrertes samtykke, jf. personvernforordningen art. 6 nr. 1 a.

Behandlingen av særlige kategorier av personopplysninger er basert på uttrykkelig samtykke fra den registrerte, jf. personvernforordningen art. 6 nr. 1 a og art. 9 nr. 2 a.

PERSONVERNPRINSIPPER

Personverntjenester vurderer at den planlagte behandlingen av personopplysninger vil følge prinsippene i personvernforordningen:

- om lovlighet, rettferdighet og åpenhet (art. 5.1 a), ved at de registrerte får tilfredsstillende informasjon om og samtykker til behandlingen
- formålsbegrensning (art. 5.1 b), ved at personopplysninger samles inn for spesifikke, uttrykkelig angitte og berettigede formål, og ikke viderebehandles til nye uforenlige formål
- dataminimering (art. 5.1 c), ved at det kun behandles opplysninger som er adekvate, relevante og nødvendige for formålet med prosjektet
- lagringsbegrensning (art. 5.1 e), ved at personopplysningene ikke lagres lengre enn nødvendig for å oppfylle formålet.

DE REGISTRERTES RETTIGHETER

Vi vurderer at informasjonen om behandlingen som de registrerte vil motta oppfyller lovens krav til form og innhold, jf. art. 12.1 og art. 13.

Så lenge de registrerte kan identifiseres i datamaterialet vil de ha følgende rettigheter: innsyn (art. 15), retting (art. 16), sletting (art. 17), begrensning (art. 18) og dataportabilitet (art. 20).

Vi minner om at hvis en registrert tar kontakt om sine rettigheter, har behandlingsansvarlig institusjon plikt til å svare innen en måned.

FØLG DIN INSTITUSJONS RETNINGSLINJER

Personverntjenester legger til grunn at behandlingen oppfyller kravene i personvernforordningen om riktighet (art. 5.1 d), integritet og konfidensialitet (art. 5.1. f) og sikkerhet (art. 32).

Ved bruk av databehandler (spørreskjemaleverandør, skylagring, videosamtale o.l.) må behandlingen oppfylle kravene til bruk av databehandler, jf. art 28 og 29. Bruk leverandører som din institusjon har avtale med.

For å forsikre dere om at kravene oppfylles, må prosjektansvarlig følge interne retningslinjer/rådføre dere med behandlingsansvarlig institusjon.

MELD VESENTLIGE ENDRINGER

Dersom det skjer vesentlige endringer i behandlingen av personopplysninger, kan det være nødvendig å melde dette til oss ved å oppdatere meldeskjemaet. Før du melder inn en endring, oppfordrer vi deg til å lese om hvilken type endringer det er nødvendig å melde: https://www.nsd.no/personverntjenester/fylle-ut-meldeskjema-for-personopplysninger/melde-endringer-i-meldeskjema.

Du må vente på svar fra oss før endringen gjennomføres.

OPPFØLGING AV PROSJEKTET

Vi vil følge opp ved planlagt avslutning for å avklare om behandlingen av personopplysningene er avsluttet.

Kontaktperson hos oss: Marita Helleland