

“How can you live without using Snapchat?” Practical Study for the Usage of Facebook and Snapchat in the Kingdom of Saudi Arabia

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Abstract

This study aims to provide an in-depth description of the practices of social media users in the Kingdom of Saudi Arabia (KSA)—specifically the users of Facebook and Snapchat—and the reasons for these practices, the decisions made, and the people involved. Qualitative methods were used to collect data in two rounds from 53 participants. The data analysis shows a clear preference for Snapchat over Facebook among the participants, as shown in their using the application many times daily and in the creation and use of new words derived from the application’s name. On the other hand, one of the main reasons mentioned by the participants for not preferring Facebook was the unclear policy of security and privacy used in the application. This reason is important for all social media users, but, in particular, it is crucial for female users, as shown in the data. This is important for the designers and policymakers of the social media applications to understand and consider, as it would help them improve the current applications and create new ones.

Key words:

Facebook, Snapchat, KSA, users’ practices, thematic analysis.

1. Introduction

One marker of this era is the variety of social media applications used by most people and the huge effect of these applications in shaping people’s lives and opinions. Consequently, these applications have become part of daily activity for many people, which was clear when in 2018 the researcher was asked “How can you live without using Snapchat?” by a person surprised to find someone living in Saudi Arabia and not using Snapchat. At that time, the strong adaptation for Snapchat in the KSA became clear, which led to the following question: Why are some social media applications more popular in some countries than others? To answer this question, several objectives will be considered in this research, but the main one will be to study the practices of social media users in the KSA, specifically users of Facebook and Snapchat, as both applications are considered image-based social media applications. In

addition, this research aims to understand the reasons for and aspects of adopting different practices for each application.

Although Facebook and Snapchat are mainly used to publish and share photos and video streams, the usage of each application by users is different. When Facebook was released in early 2004, it was categorised as the most used application in different countries. In the KSA, Snapchat was released years later and has almost the same number of users as Facebook, where according to [1], in 2021, the number of Facebook users in the KSA reached 18.98 million (54% of the population), while Snapchat users in the KSA reached 17.73 million (53% of the population). The conclusion was that “Saudi Arabia continues to be a social media powerhouse, being one of the biggest national markets for Snapchat.” In addition, in July 2018, it was reported that the KSA had the most active Snapchat users in the world [2]. In this case, a question may arise: although both Facebook and Snapchat are mainly image-based social networking applications, what factors make users of social media applications in the KSA prefer one of the two over the other, and why? To answer this question, the practices of social media users for the two applications should be analysed and understood deeply. A previous study [3] focused on answering two questions: 1) Which one is preferred in the KSA, Facebook or Snapchat, and how is this preference represented? 2) What reasons make users least prefer the other application?

A quantitative study was carried out where an online questionnaire was created using Google Forms and distributed to eligible participants to answer these questions. The questionnaire took 10 to 15 minutes to complete and comprised 12 closed questions: two questions about age and gender, five questions about Facebook use, and five questions about Snapchat use. After collecting the responses, the data were entered into a computer and processed using the Statistical Package for the Social Sciences (SPSS V.20). The data analysis shows a clear preference for Snapchat over Facebook in the KSA, where 89% of the participants

have accounts on Snapchat, compared to 66% with accounts on Facebook. Moreover, 83% of the participants who have Snapchat accounts can be described as very active users, accessing their Snapchat accounts at least once a day compared to only 15% of Facebook users. Moreover, the data analysis shows that the reasons that make Facebook unattractive for (or least preferred by) most users are: the idea that the application is not preferred, that family members or friends do not use the application, and that the application is not popular in the KSA.

In this study, the topic will be explored more to get a detailed description of the users' practices and understand the reasons behind these practices. In this paper, we illustrate previous related research in the next section, then present a summary of the unique setting of the KSA, describe and discuss our methodological approach, outline the findings about the participants' practices while using Facebook and Snapchat, and finally discuss the implications of these practices in the KSA.

2. Related Work

Using social media applications allows users to create and share different types of information and ideas and interact with other users through computer-mediated virtual reality [4] by using desktops and laptops or downloading applications to their mobile devices, such as smartphones and tablets. As users are involved in social media services, they generate platforms to interact, share, modify, discuss, and co-create online posts for other users. In addition, these users can be communities, organisations, or individuals. According to [4], social media has shaped and changed the way humans interact and communicate, to "introduce substantial and pervasive changes to communication between organizations, communities, and individuals." Interestingly, these changes inspired the creation of a new field called Technoself Studies (TSS). TSS is a new, interdisciplinary area of research focusing on all aspects of technological virtual society and human identity and concentrating on the relationships between human practices and technologies [5]. It focuses on mapping and analysing the changes in the concept of human identity as a consequence of the changes in technology, with an emphasis on the former, not the latter. In this field, some studies have been carried out in the health care area. For example, Moreno et al. [6] investigated the relationship between physicians' personal and professional use of social media. The authors concluded that physicians with a high level of social media usage would adopt practices such as focusing on the effect of social media on participants and a

better self-estimation of competences. Al Onezi et al. [7] investigated the effect of online social support provided to people who quit smoking in the KSA. They found that online social support was more effective than traditional support methods. The findings clearly showed that users who participated and received support from social media groups on Twitter and WhatsApp found quitting easier than others. Different studies have been carried out in the education and academic sectors and have focused on the effects of social media use on students' academic performance [8]. The study found a significant negative impact on academic performance when students used social media for non-academic purposes, particularly video gaming. Alwagait et al. [9] carried out a similar study in the KSA, and the results showed that student GPA scores were not affected by the use of social media. Students even emphasised the importance of time management as a factor besides the use of social media. Meanwhile, [10] found that although teachers and students agreed that social media should only be used for socialising, they were still willing to use it for educational purposes, and they believed it would improve their educational skills.

Focusing on privacy concerns for social media users, [11] found that users' concerns about privacy and the type of self the user wanted to express played an important role in choosing which social media application to use. When asked to choose between Snapchat and Instagram, users primarily used Snapchat to express their true and actual selves. Meanwhile, Instagram users said they used the application to express their ideal selves and had greater privacy concerns.

In an important study, [12] examined the behaviour of Facebook, Twitter, Instagram, and Snapchat users and the influence of these social media networks on the relationships among people who work or live in the same society. The study found that Twitter users had higher bridging social relationships than Instagram, Facebook, or Snapchat users. Bridging social relationships refers to strengthening weak and distant relationships between individuals that allow information sharing opportunities [13]. The study found that Snapchat users had higher bonding social relationships than Facebook, Instagram, and Twitter users. Bonding social capital applies to strong relationships, providing emotional kinship, trust, and social support [13].

As this research was carried out in the KSA, it is useful to provide a brief background of the KSA and introduce the main issues relevant to this study. The KSA was founded in 1932, and because 97% of the population is Muslim [14], Islam plays an important role, in that Islamic principles and traditions are intertwined with Saudi culture. In this culture, when a Saudi woman meets a non-mahram¹, she is required

¹ A mahram is a woman's husband or a man to whom she

cannot be married, either because of a blood relationship,

to be draped in the abaya (a cloak covering the entire body), to cover her hair with a hijab (a piece of cloth hiding all of the hair), and to veil her whole face with a niqab [15] [16]. For some women, the niqab covers the eyes, while for others, it does not. There have been recent instances of Saudi women removing the niqab.

3. Research Design

As mentioned before, quantitative data was collected and resulted in statistical records regarding the usage of Facebook and Snapchat in the KSA. However, the purpose of this study is to investigate the topic in-depth, drawing a detailed account of participants' practices and opinions regarding the two applications and discovering why they hold these opinions. Therefore, this study was designed qualitatively in two rounds of data collection used to collect data from a total of 53 participants, all of whom were over 18 years old; a snowballing technique was used to recruit them. In the first round, semi-structured telephone interviews were used with six participants: four females and two males. Each interview lasted approximately 60 minutes. In the second round of the data collection, a combination of diaries and telephone interviews [17] was used with 47 participants: 33 females and 14 males. The purpose was to gather factual data, such as a log of participants' practices when using Facebook and/or Snapchat, decisions made, and people involved. Written diaries have been used efficiently to capture factual data in many HCI studies [18] [19] [20] [21].

In this study, each participant was asked to write a diary for a week, recording brief notes on their practices every time they accessed any of Facebook or Snapchat accounts. The diaries were sent to the researcher for analysis, and then each participant took part in a semi-structured telephone interview. Before the start of the diary period, the participants were shown examples of diaries written by the researcher to clarify what they were being asked to write. The participants prepared the diaries daily and sent them to the researcher by the end of the day via WhatsApp (a cross-platform mobile messaging app). After the diary period finished, the researcher analysed each participant's diary, then WhatsApp was used again to set dates and times for telephone interviews. Five females and three males submitted diaries for analysis but dropped out of the study before the interviews, so the findings are based on data from a total of 47 diaries and 39 interviews. All diaries were written in Arabic, and the interviews were conducted and transcribed in Arabic. To analyse interview transcripts, thematic analyses [22] [23] were applied to identify repeated patterns, ideas, and reasons that shaped and affected participants' use of Facebook and Snapchat.

such as her father, brother, grandfather, son, uncle, or nephew, or because of a marriage relationship, such as her

ATLAS.ti, a computer-aided qualitative data analysis software, was used.

4. Findings

Analysis of the diaries and interview transcripts on the participants' daily usage of the applications reveals that four main themes drew the participants to adopt and use the applications: security and privacy, changes in society's acceptance of using this type of application, different factors and functions in each application, and finally, the application's popularity.

4.1 Security and privacy:

This theme was repeated most often among other factors that affect the practices of the participants in adapting and using the applications. Participants related security and privacy with two issues: 1) their ability to control who sees their account profile and posts and 2) the ability to know if someone saved the posts anyway, such as capturing the screen and/or sharing the posts with others. With the first issue, the more the application's user has control, the more it means this application is secure and provides an adequate level of privacy. Many participants mentioned that on Facebook, the rules that determine who can see their profiles and posts are confusing; moreover, many participants expressed their worry about **"being lost"** on Facebook as a result of moving to a friend's account from another friend's account and so on. The idea of friend-of-friend and the accessibility of accessing their accounts easily caused worry among many participants regarding the security and privacy of their accounts and made them wonder who else would access their accounts without their knowledge by using the same feature.

"On Facebook I always get confused and lost, it is because of the idea of moving from an account to a friend-of-friend's account without noticing" (p10, M).

In addition, some participants mentioned that many Facebook users use fake identities to keep their privacy.

"All my friends advised me not to use my real name or date of birth when I first signed up to Facebook. By doing so, they can express themselves freely without judgement" (p5, M).

On the other hand, the second issue attracted many participants to Snapchat, where they would be informed when their posts were being saved. Again, if the application provides the user with more information about whether someone saves or shares their posts, then the security and

father-in-law, son-in-law, stepfather or stepson.

privacy of the application is high, which will make it more attractive to users.

“Privacy... privacy... and it is all about privacy... if someone captured my post on Snapchat, I will be informed immediately and that is a great feature... I think Snapchat is the only application with this feature” (p7, M). This issue was a big concern for many of the participants, specifically when the post is a personal photo where in this case the need for security and privacy would be highest. Especially for female users, posting personal photos is a delicate issue due to the social-cultural concerns around hijab.

“No way would I post my photo on Facebook, it is totally not accepted in my family... but I would post my photos on private story on Snapchat, I will guarantee then that my photos are secure as no one can save it without my knowledge and also it is easy and clear for me who would see them” (p6, F). Moreover, the fifth participant mentioned that he would not have a problem if one of his sisters posted her photo on Snapchat, but she must be wearing hijab, and it would not be acceptable if she did not, even if the photo would be seen only by his sister’s girlfriends who normally see her without hijab.

4.2 The changes in society’s acceptance of using this type of application

By discussing the use of social media applications that show and present parts of the personal life of individuals, participants mentioned the changes in people’s perspective on using such applications; in contrast, when Facebook was released, society did not accept it, and people had many concerns against using it. However, this perspective has changed gradually, especially with the more privacy, clarity, and simplicity in use provided by Snapchat.

“When Facebook launched in the KSA, many of my friends advised me not to use my real personal information to sign in ... but this did not happen when Snapchat launched as the society changed and I think people were familiar with the idea of using such applications and that such information would be protected” (p38, M). A female participant also said:

“When I used Snapchat at the beginning, my family did not allow me to post my personal photo... but then gradually they noticed that everyone around them was using Snapchat, and it was secure... so now I can post my photos” (p2, F).

4.3 Different factors and functions in each application

There are some factors in each application that attract users to it. For instance, most of the participants declared

that following celebrities or influencers was one of the reasons they used Snapchat frequently, whereas, according to the participants, celebrities are not as active on Facebook as on Snapchat.

“I have started using Snapchat to follow my favourite celebrities and fashionistas and to see their daily life in the stories... I think they are the first people who used Snapchat, and then their fans followed them” (p2, F). Participants mentioned different kinds of celebrities and influencers such as both male and female models, chefs, and make-up artists. They also mentioned accounts focused on certain topics such as health and lifestyle, the history of the KSA, sports, and news of the KSA

“Because my major is history, I follow accounts focused on this subject. I do really enjoy these accounts” (p4, M). To attract more followers, these accounts will occasionally provide a special sale code that their followers can use in online shopping for some brands.

“I follow some celebrities and cooking accounts ...some of them post sale codes that can get me good discounts for some brands” (p8, F).

Another factor that attracted users to Snapchat is the ability to make audio and video calls, which participants use to connect with family and friends, especially if they are living abroad.

“I use video calls on Snapchat frequently these days to talk to my brother... he has a scholarship and is studying in the US” (p3, F). Moreover, making group video calls attracted some participants.

“I love to play with ten of my friends a video game called FIFA on Play Station, and therefore we made a group on Snapchat so we can do group video calls while we play together” (p10, M).

On the other hand, many participants mentioned that they signed into or used their existing account on Facebook to log into certain websites.

“The last time I accessed my Facebook account was two years ago... I needed it to log into a movie website” (p6, F). In addition, many participants mentioned video games as reasons for signing into Facebook, where some of them needed to sign into a new video game using their Facebook account to gain more points. Some of the participants mentioned that they had recently created a Facebook account just to follow livestreams by game professionals in a famous online game called Player Unknown’s Battlegrounds (PUBG).

“I created my Facebook account three or four months ago, and I needed it just to watch live streams

for famous players in PUBG... they used to do that on YouTube then suddenly they moved to Facebook and invited their fans to do so... I used this account for this reason only I don't follow or even have followers, and I don't even use my real name" (p9, M).

4.4 The application's popularity

Many participants mentioned that they were not using Facebook because they would not find many Saudi users to chat and interact with them.

"Here in Saudi Arabia when I meet a new friend...it is rare to ask for his/her Facebook account because it is most likely that he/she doesn't have one... instead I will ask for their Snapchat account... gradually and eventually I started using Snapchat most of the time"(p5, M). One participant used Facebook to interact and communicate with his friends, most of whom were not Saudi.

"I use Facebook to watch sports videos... I love sports... also to be in touch with my friends... most of my friends on Facebook are Syrian, Egyptian, or Turkish... I do have Saudi friends on Facebook, but they are few... three or four friends only" (p14, M). Moreover, some participants stated that Facebook is for users of a particular nationality, such as those from Egypt or the Philippines.

"Facebook is for people of certain nationalities such as Egyptians... it's not for Saudis... you will not find many Saudis on Facebook... I heard that from many of my friends when I told them about Facebook" (p4, M).

Some participants mentioned that people in the KSA were using Snapchat more than Facebook, and as a result of this difference in popularity, the new generation of users for these applications was also adopting and using Snapchat more than Facebook.

"My young siblings do not use Facebook ... I think it is not the application that is used most by their generation" (p5, M).

As a result of the high popularity of Snapchat, it has been noticed that many participants use words such as **"Snapah,"** which, according to the participants, means **"a post on Snapchat,"** or **"Asannep,"** which means **"I am posting on Snapchat."** Clearly, these words are not Arabic or from any other language and are derived from the application name **"Snapchat."**

This difference in the popularity between Facebook and Snapchat is also found in other countries but in a contrary way, where some participants declared that although they

prefer to use Snapchat, they could not use it with some of their foreign friends because they did not use Snapchat, and some were not even familiar with the application.

"When I went to Italy, I asked my Italian friends for their accounts on Snapchat, and I was surprised that most of them did not know the application" (p10, M).

5. Discussion

Analysing the whole data gathered from the quantitative study [3] and the current qualitative study opens three areas for discussion:

5.1 The conjunction between personal photos and security and privacy policies

Showing part or events of personal life is a delicate and sensitive issue, and therefore handling and setting the policy for who can see and who would be able to save and share the posts must be very clear. Facebook offers privacy controls in order to allow users to choose who can view their posts: only friends, friends and friends of friends, everyone, or custom (specific choice of which friends can see posts). While these options exist, Facebook has been criticised before [24] [25] because of breaches into these controls and leakage of users' privacy, and there are still methods by which otherwise unauthorised third parties can view a post. For example, posting a picture and marking it as only viewable by friends, but tagging someone else as appearing in that picture, causes the post to be viewable by friends of the tagged person(s) [24]. In the quantitative data, 40% of the participants picked "I did not like the idea of the application" as a reason for not having a Facebook account. In this study, many participants expressed worries about this same issue—especially when they post personal photos—and the imprecision and ambiguity of the security and privacy policy of their Facebook accounts and **"being lost"** when they use the application. Compared to Snapchat, participants did not have the same worry since the rules are simple: both personal accounts must follow each other to be able to see the posts with notifications about who sees the post and who saves it.

5.2 Social media and female users

When examining the usage of social media applications by female users in the KSA, two issues appeared on the surface: 1) women's hijab and niqab and personal photos, 2) people involved in decisions made by the female user.

The previously discussed point illustrated that participants worried about the security and privacy of their personal photos, while female users who wear hijab and niqab would be more worried about posting personal photos without hijab or niqab and who would see these photos. Female users can limit their posts of personal photos to only

photos with hijab to feel safe in case the photo is seen by a non-mahram.

Regarding the second issue, the analysis has identified in some cases that specifically for female users, family relatives can get involved in their usage of social media and the decisions made.

“I used to have an account on Facebook, but it happened that some males liked my posts and my brothers got angry and furious; the posts were general and public photos from the web, not personal photos of me... and I was not acquainted with the males who liked the posts, so my father decided that we can’t use Facebook... I used Snapchat after that as a replacement, and it is fine as it is more private and secure because no one can see my posts except my followers” (p6, F).

“Two years ago, I used to have a Facebook account, but my father decided that we can’t use Facebook... now I am using Snapchat, and it is fine as I am married now, and my husband allowed me to use it... he is my guardian now, and he is the one who decides if I can use social media accounts or not” (p41, F).

“I do allow my sisters to post their personal photos on Snapchat but only if they are wearing their hijab... even though only their female friends will be able to see it... but it is better to stay on the safe side and to keep their religious beliefs since what if a non-mahram saw the photo” (p5, M).

5.3 Attracting new users

At first, it was not clear why participants often said that Facebook was not an application for Saudis, especially when the quantitative data analysis showed that 66% of the participants had Facebook accounts. However, only 15% of the participants accessed their accounts daily, while the rest had not accessed their accounts for a long time. It was noticed that specific elements or features were used to increase the popularity or usage of an application. For instance, according to many participants, they had and used their Facebook account mainly for video games, compared to fewer participants who had Snapchat accounts for the same reason. This point is also supported by the qualitative data where 34% of the participants who had Facebook accounts had and used the account mainly for video games, compared to only 0.5% of participants who had Snapchat accounts for the same reason. In addition, using the popularity of a video game such as PUBG to attract new users to Facebook proved useful. However, we must point here that this idea is a double-edged sword where although gaining more users on Facebook by attracting video game players does seem to be a good idea, some participants mentioned that it is annoying to see that most of the posts are just about a friend signed into a game or another friend who passed a certain level in a different game.

6. Conclusion

Studying social media users’ practices is important and helpful for social media designers and policymakers when designing new applications or improving existing ones. This research provides a detailed description of how Facebook and Snapchat are used in the KSA.

Many participants have accounts on Facebook and are aware of and familiar with the application, but according to them, they are not using their accounts consistently.

One of the reasons provided was the application’s unclear security and privacy policy. This reason is important for all users but, in particular, it is crucial for female users, who wear hijab or niqab in public and worry about posting photos without them. As a result, Facebook is not as popular in the KSA, while many of the participants considered Snapchat an important part of daily activity. We have presented and discussed different factors that can either support or undermine the popularity of a social media application in the KSA; however, more needs to be done to investigate other factors further.

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References

- [1] GMI, "Saudi Arabia Social Media Statistics 2021," October 2021. [Online]. Available: <https://www.globalmediainsight.com/blog/saudi-arabia-social-media-statistics/>.
- [2] "Lovin Saudi," July 2018. [Online]. Available: 1) <https://lovinsaudi.com/news/saudi-arabia-has-the-most-active-snapchat-users-in-the-world-and-no-country-even-comes-close-1>.
- [3] D. E. Alghamdi, "On the Scale in the Kingdom of Saudi Arabia: Facebook vs. Snapchat," IJCSNS International Journal of Computer Science and Network Security, Dec 2021.
- [4] J. Kietzmann and H. Kristopher, "Social media? Get serious! Understanding the functional building blocks of social media," *Business Horizons*, 54(3), p. 241–251, 2011.
- [5] R. Luppigini, *Handbook of Research on Technoself: Identity in a Technological Society*, IGI Global, 2013.
- [6] A. Moreno, C. Navarro, R. Tench and A. Zeffass, "Does social media usage matter? An analysis of online practices and digital media perceptions of

- communication practitioners in Europe," *Public Relations Review*, (41)2,, pp. 242-253, 2015.
- [7] H. Al Onezi, M. Khalifa, A. El-Metwally and M. Househ, "The impact of social media-based support groups on smoking relapse prevention in Saudi Arabia," *Computer Methods and Programs in Biomedicine* (194), pp. 135-143, 2018.
- [8] W. W. Lau, "Effects of social media usage and social media multitasking on the academic performance of university students," *Computers in Human Behavior*, Volume 68,, pp. 286-291, 2017.
- [9] E. Alwagait, S. Alim and B. Shahzad, "Impact of social media usage on students academic performance in Saudi Arabia," *Computers in Human Behavior*, Volume 51, Part B, pp. 1092-1097, 2015.
- [10] S. Alabdulkareem, "Exploring the Use and the Impacts of Social Media on Teaching and Learning Science in Saudi," *Social and Behavioral Sciences* (182), pp. 213-224, 2015.
- [11] T. R. Choi and Y. Sung, "Instagram versus Snapchat: Self-expression and privacy concern on social media," *Telematics and Informatics* (35)8, pp. 2289-2298, 2018.
- [12] J. Phua, S. V. Jin and J. (. Kim, "Uses and gratifications of social networking sites for bridging and bonding social capital: A comparison of Facebook, Twitter, Instagram, and Snapchat," *Computers in Human Behavior* (72), pp. 115-122, 2017.
- [13] R. D. Putnam, *Bowling alone: The collapse and revival of American community*, New York: Simon & Schuster, 2000.
- [14] NationMaster, "Saudi Arabia Religion Stats," [Online]. Available: <https://www.nationmaster.com/country-info/profiles/Saudi-Arabia/Religion>. [Accessed October 2021].
- [15] M. AlMunajjed, *Women in Saudi Arabia today*, London: Macmillan, 1997.
- [16] A. Mirza , "Students' perceived barriers to in-class participation in a distributed and gender segregated educational environment," *The Electronic Journal of Information Systems in Developing Countries*. 35(7), p. 1-17, 2008.
- [17] D. Bogdanovic and et al, "Contesting Methodologies: evaluating focus group and privacy diary methods in a study of on-line privacy," *Journal of Information, Communication and Ethics in Society*. 10(4), pp. 208-221, 2010.
- [18] A. Adler and et al, "A Diary Study of Work-Related Reading: Design Implications for Digital Reading Devices," in *ACM CHI 98 Conference on Human Factors in Computing Systems*, 1998.
- [19] B. Brown, A. Sellen and K. O'Hara., "A Diary Study of Information Capture in Working Life," in *ACM CHI 2000 Conference on Human Factors in Computing Systems*, 2000.
- [20] J. Rieman, "The Diary Study: A Workplace-Oriented Research Tool to Guide Laboratory Efforts," in *INTERACT '93 and CHI '93 Conference on Human Factors in Computing Systems*, New York, 1993.
- [21] A. Sellen and R. Harper, "Paper as an Analytic Resource for the Design of New Technologies," in *ACM CHI 97 Conference on Human Factors in Computing Systems*, 1997.
- [22] V. Braun and V. Clarke, "Using thematic analysis in psychology," *Qualitative Research in Psychology*, 3, pp. 77-101, 2006.
- [23] V. Clarke and V. Braun, "Teaching thematic analysis: Overcoming challenges and developing strategies for effective learning," *The Psychologist*, 26(2), pp. 120-123, 2013.
- [24] B. Sayin and et al, "Privacy issues in post dissemination on Facebook," *Turkish Journal of Electrical Engineering and Computer Science*. 27 (5), p. 3417-3432, 2019.
- [25] A. Vishwanath and et al, "How people protect their privacy on facebook: A cost-benefit view," *Journal of the Association for Information Science and Technology*. 69 (5), p. 700-709, 2018.

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