TOWARDS A RELATIONAL UNDERSTANDING OF ONLINE PRIVACY PERCEPTIONS (CONCERNS), SOCIAL MEDIA USAGE MOTIVATIONS AND USAGE BEHAVIOR: A SEMANTIC NETWORK ANALYSIS

DERİN HACIOĞLU

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ABSTRACT

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Hacıoğlu, Derin

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Advisor: Prof. Dr. Ebru UZUNOĞLU

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In today's conditions, it has been proven that social media has become an irrefutable habit for the masses. Social media, which serves many purposes, follows the footsteps of users, records, and stores them. This situation causes some clarities regarding the protection of personal data. The aim of this study is to analyze the relationship between what purposes these channels serve for users and how much the users compromise their privacy to achieve these goals. In the survey, which forms the basis of the study, open-ended questions were included to obtain free associations of social media users. In the questionnaire, words were asked to describe the purpose of using social media from the participants, and the findings were analyzed by semantic network analysis. In the last question of the questionnaire, using a 5-point Likert scale, the participants were asked to choose which of the definitions of the motivations were closer to them and the way they use social media, compared to the scales used in previous research. The findings of the study indicate that there is a link between the purposes of using social media and the concern about privacy in social media. The study also contributes to the literature by stating that there may be a relationship between the way of the use

of users and, accordingly, their immediate moods and privacy concerns. This research can guide studies on the concerns of users about the protection and dissemination of personal data in social media, and contribute to the development of new applications designed for different purposes.

Keywords: privacy in social media, perception of privacy, motivations for social media use, social media usage behavior.

ÖZET

ÇEVRİMİÇİ MAHREMİYET ALGILARININ (ENDİŞELERİNİN) SOSYAL MEDYA KULLANIM MOTİVASYONLARI VE KULLANIM DAVRANIŞLARI İLE İLİŞKİSİNE YÖNELİK ANLAMSAL AĞ ANALİZİ

Hacıoğlu, Derin

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Günümüz koşullarında, sosyal medyanın büyük kitleler için reddedilemez bir alışkanlık haline geldiği kanıtlanmıştır. Birçok amaca hizmet eden sosyal mecralar, kullanıcıların ayak izlerini takip eder, kaydeder ve bunları depolar. Bu durum kişisel verilerin korunmasıyla ilgili bazı açıklıklara sebebiyet vermektedir. Bu çalışmanın amacı da, günlük yaşantının içinde önemli bir yere sahip olan bu mecraların kullanıcılar için hangi amaçlara hizmet ettiği ve bu amaçlara ulaşmak için mahremiyetlerinden ne kadar ödün verdikleri ile arasındaki ilişkiyi analiz etmektir. Çalışmanın temelini oluşturan ankette, sosyal medya kullanıcılarının serbest çağrışımlarını elde etmek amacıyla açık uçlu sorulara yer verilmiştir. Ankette katılımcılardan sosyal medyayı kullanım amaçlarını tanımlayacak kelimeler istenmiş, ve bulgular anlamsal ağ analizi ile incelenmiştir. Anketin son sorusunda ise 5'li Likert ölçeğinden faydalanılarak, katılımcıların geçmiş araştırmalarda yararlanılan ölçeklere göre motivasyonların tanımlamalarından hangilerinin kendilerine daha yakın olduğunu ve sosyal medyayı kullanma biçimlerini seçmeleri istenmiştir. Araştırmanın

bulguları, sosyal medyayı kullanım amaçları ve sosyal medyada mahremiyet konusunda duyulan endişe arasında bir bağ olduğuna işaret etmektedir. Çalışma ayrıca kullanıcıların kullanım şekli ve buna bağlı olarak anlık ruh halleri ile mahremiyet endişeleri arasında bir ilişki olabileceğini de ifade ederek literatüre katkı sağlamaktadır. Bu araştırma sosyal medyada kişisel verilerin korunması ve yayılmasıyla ilgili kullanıcıların duydukları endişeyi konu alan çalışmalara yol gösterebilir, farklı amaçlara göre tasarlanan yeni uygulamaların gelişmesine katkı sağlayabilir.

Anahtar Kelimeler: sosyal medyada gizlilik, mahremiyet algısı, sosyal medya kullanım motivasyonları, sosyal medya kullanım biçimi

Dedicated to my family,

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IoT : Internet of Things

CHAPTER 1: INTRODUCTION

This study aims to determine the approaches of social media users about personal data, which is expressed as the consumer's footprint in social media areas, and to evaluate them comparatively according to their demographic characteristics. The study, it is aimed to specify whether demographic characteristics and different usage motivations create perceptual differences in the context of personal data privacy and user privacy in the social media tools, and to identify the relationship between possible differences and behavioral intention.

Since the internet and especially social media have come into people's lives, they have become an indispensable part of daily lives, even people's addiction. Under today's developing technological opportunities and changing habits depending on them, and also with the effect of the covid-19 virus that made the whole world at home, the increasing use of social media has caused people to change certain habits in their daily lives. Activities such as shopping, socializing, business, information, etc. which are carried out in daily routine, have started to be met through the internet and social media tools with these technological developments. These activity areas are reasons for each people to put social media at the center of their lives. The news cycle in social media, which is dominated by the disintermediated diffusion of information especially evolved with the epidemic, how people seek or avoid information, how those decisions affect their behavior, and the way information has been consumed and reported. In this regard,

> *"the term 'infodemic' has been used to indicate the dangers in such epidemic situations, as misinformation can accelerate the epidemic process in terms of increasing and dividing the social response"* (Zarocostas, 2020; Starbird et al., 2014; Kim, Fast and Markuzon, 2019).

While conducting all of the people's daily activities through social media, according to Whiting and William's (2013) approach, information seeking is one of the uses and gratification concerning the internet. Also, according to the results of the research conducted by Ozok and Zaphiris (2009), when people's SNS usage purposes are listed from most to less, information ranks 4th with a rate of %10. From Lavinia's investigation (2020), it is possible to understand that although social media platforms

are generally tools that users sign for socialization, entertainment, etc. as seen in the covid-19 crisis, users have changed their purpose of using social media and tended to use it to be aware of latest developments from people in the region of the current crisis. With the pandemic effects, which have changed the usage patterns and habits of users, it has become common to use social media more frequently for information purposes, and thus, people mostly ignore the privacy and awareness of their personal data and also the disturbing impulse of it, then continue their lives. However, the huge amount of data in social media is user-generated and personal most of the time, which reveals the need for mechanisms to protect users' privacy so that they can feel safe and use social media freely.

Such and Criado's (2018, p.75) thoughts about privacy as:

> *"Privacy is not just about what people say or disclose about themselves. It is also about what others say or disclose about them."*

People's social media usage patterns determine the privacy limits and boundaries of their family and relationships through social media. Every step people take on social media is recorded in some way as "data" and gives clues about how much they want to reveal themselves and the limits of their personal data. On the other hand, keeping personal boundaries becomes a challenge in the rapidly growing social media landscape based on the mainstream social media's privacy settings. While they only allow users to upload a co-owned data item, this causes the conflicts and severe privacy violations (Such and Criado, 2018). Moreover, people rely on these privacy settings of applications to protect their personal data while using them, but they often ignore that their data is shared with 3rd parties beyond their awareness. This shakes people's confidence in the applications they use and shapes their social media usage behavior.

In this study, the motivations of use of social media users are discussed under the title of privacy, and their perceptions of privacy and its effects on usage patterns and habits are examined. While examining the frequency and purpose of use of the sample group in the research by comparing them with their demographic characteristics, the aim is to see the effect of these on the privacy perception of each user and to examine for which subjects and under what conditions they enforce their privacy limits in social media.

CHAPTER 2: LITERATURE REVIEW

2.1. Analysis of Literature

With the developing internet technologies and the strengthening of the place of social media in our lives, many kinds of research about the use of social media take their place in the literature. In this part of the research, the association of social media use with privacy is discussed fundamentally, and then the reconciliation of usage motivations and the perception of privacy in social media by users are also examined. Different motivation scales with examples from different studies are included in this part which have been mentioned in the past research. Also, other concepts that are associated with privacy and sometimes confused by users in social media are discussed in detail.

> *"Social media technologies have offered its users new online opportunities to share personal information, and millions of people regularly disclose their personal information on social network sites (SNSs)"* (Bazarova and Choi, 2014, p.635).

According to this, the way users use social media can be considered as their footprints in a way, and allows them to learn about many characteristics of the users. For example, according to the results of a study conducted by Kim et al. (2013) on college students, including both undergraduate and graduate students, students may use different social media platforms to get information based on their class level, disciplines, and gender. Regarding the result of another study about the relationship between personality traits and social media use, Zuniga et al. (2017) made out that extraverts tend to use social media generally, for news, and relational purposes while the more emotionally stable people tend to spend the less time on social media and they do the less to consume information and socialize. Another study, which can be given as an example at this point too, was carried out by Özgüven and Mucan (2013) is performed such a regression analysis by making a correlation analysis between personality traits and social media use, taking life satisfaction and demographic characteristics such as gender, education and income level as control variables. At the end of the study, it has been reached that conscientious people are more open to experience and satisfied with their lives, and that they are more likely to use social

media. In addition, at the end of the study, they concluded that some personality traits such as extraversion, agreeableness, neuroticism, and also gender that they used as a control variable in the analysis have not any effect about social media use.

As mentioned above, it is possible to reach many studies in the literature that examine and link the relationship between personality traits and social media use. These characteristics may be crucial factors leading users to engage in social media which is like participatory media, and the literature suggests that the uses of social applications on the Internet differ from the users' personal characteristics such as extraversion, emotional stability, and openness to experience (Correa et al., 2010). It is possible to reach studies that can establish a relationship between the personality traits of users and the use of social media, as well as between different personality traits and the perception of privacy in social media. According to a study (Sumner et al., 2011) that aims to link users' Facebook activities and personal traits with their privacy perceptions, it has been found that there is a relationship between users' concerns about their privacy in social media and the Big Five personality traits. David and Suls (1999, p.267) mentioned that:

> *"the Big Five model of personality provides a useful approach for dealing with the relationship between personal differences and usage, and the Big Five is a taxonomy that defines a personality with the least and sufficient adjectives among the broad personality dimensions; and Neuroticism, Extraversion, Openness to Experience, Agreeableness, and Conscientiousness are the taxonomies of the Big Five"*

When Sumner et al. (2011) grouped the participants in their research according to their personality traits, properly to the Big Five, and perceptions of privacy, they reached the following conclusion: As the participants' level of extraversion and agreeableness increased, their concern about online privacy issues decreased, while neuroticism was associated with greater concern about online privacy issues. As the usage patterns and habits of social media users vary according to their personality traits, and their perceptions of privacy, there are ways of thinking and subjects under the influence of the perception of privacy. Before examining these, it is important to understand the concept of privacy and to understand in which areas it can be seen in social media.

2.2. Privacy Concept in Social Media

With the development of social networks, it has become an irresistible situation to be preferred instead of traditional communication tools.

> *"However, it is expected that users' perspectives on social media will change when they will encounter a privacy violation and it is obvious that the use of the Internet of Things (IoT) and smart communication technologies introduce a vast exposure to cybersecurity threats and vulnerabilities"* (Gupta et al., 2020, p.34564).

Even Trepte and Reinecke (2011) defined privacy as a basic human need, and they believed that losing privacy is perceived as an extremely threatening experience. While Leino-Kilpi et al. (2001) defined physical privacy, they also referred to the concepts of personal space and territoriality. They associated privacy and personal space with each other and even they described personal space as a precondition for privacy. In addition to this, Trepte's (2020, p.549) privacy definition is:

> *"the selective control of information sharing, where control is key, but for social media, however, it is not easy for individual users to control the information"*

Jiang et al. (2013, p.579) have also defined privacy as:

> *"the prime importance to many individuals when they attempt to develop online social relationships"*

> *"The conceptual work around privacy has pushed by the digital (and increasingly physical) services to new frontiers with an emphasis on the contextual nature of privacy and the plurality of meaning placed in the idea of privacy by different actors with the rapid adoption of social media and growing use of private information as de facto currency"* (Quinn and Epstein, 2018, p.361).

There is limited research on how a different framework that would match stakeholders' expectations on privacy will affect businesses, even if privacy is seen of as a mutually advantageous social consensus within a community regarding exchanging and using data (Martin, 2015). In the face of this concept, which has different meanings, social media users also contradict themselves and it is possible to observe an inconsistency

in the behavior of the users occasionally due to privacy concerns. Also, there is a term that "privacy-paradox" defined by Rodin (2001) and Norberg (2007) as:

> *"a discrepancy between people's attitudes toward privacy and their online privacy behavior in the literature"*

Despite this concern, their research among teenage social media users found that only a small percentage of these users carelessly change their privacy settings from public to private, and it shows that there is an inconsistency between stated privacy concerns and the disclosure of private information. Besides them, as is known that "in the context of the use of social networks, users' awareness of the potential risks and personal data which they voluntarily upload and share is also increasing" (Smith et al., 2012). Users are concerned about being known about what they share, with whom, and when by others which cause them to hesitate about privacy violations.

Also, cultural differences and practices play a role in users' concerns about their privacy on social media. While individuals between cultures are aware of and capable of maintaining interpersonal privacy, their personal views and behaviors vary among cultures *(*Altman and Bayer, 1975). In the literature, it is possible to come across many studies stating that privacy definitions and social media usage behaviors vary according to cultural differences. Ur and Wang (2013) considered that cultural differences specific to a nation with which they are familiar have a significant impact on members of that nation's attitudes toward privacy, or even their sense of privacy. In the past, researchers have also made many studies to prove that the perception of privacy between eastern and western cultures varies depending on the region. In a study conducted to investigate the perception of privacy in Japanese culture, Nakada and Tamura (2005) found that it seems to be common and usual to express or share (some of) one's privacy in order to develop positive personal relationships. Also, the "private novel" is (or was) another well-liked literary genre in Japan. According to Yao-Huai (2005) who made research about privacy issues in China, Chinese notions of privacy are likewise more varied as a reflection of Chinese society. A greater number of Chinese citizens are starting to appreciate privacy and feel compassion about defending relatively new privacy rights, and he argues that China is opening up to the nations, cultures, and network and computing technology of something like the West. Zhao and Jiang (2011) defined Chinese as collectivists and they believed that

Chinese people frequently highlight whether their behaviors affect other people in their in-groups, and they frequently depend on some other in the group. They also noted that people from collectivist cultures could prefer to reveal their social group memberships while presenting themselves online because an interdependent selfconception is valued in these societies.

> *"Individualism against collectivism dimension refers to the degree to which people within a culture rely on and show loyalty to either themselves or in-group"* (Sheldon et al., 2019, p.3).

Zhao and Jiang (2011) consider the Chinese people as collectivists, while for example, they assume the American people as individualist in their study. In a study addressing the relationship between cultural differences and the time spent on social media platforms, it is mentioned that Facebook usage time was inversely correlated with individualism.

> *"Compared to Linkedin, an SNS focused on professionals, Facebook is more collectivist because it is a friendship-based SNS"* (Sheldon, 2019, p.4).

According to a study (Burke and Şen, 2018) on the effect of political culture on social media use among Turkish and American youth, both nations respondants' indicate that they gain knowledge of topics and events more quickly, that they mainly rely on social media for news and information, and they base their decisions about who to support on how others react. Burke and Şen (2018, p.9) mentioned that:

> *"Even while the possibility of participatory politics existed, the majority of the respondants in Turkey and US were not using social media to engage in or oppose any political activity"*

On the other hand, it is thought that the Gezi Park made use of social media, which had an impact on how quickly the protests moved from being organized by a small group of environmentalists to becoming a socio-political movement. Twitter had a big part in the protests in additional to other social media platforms. Demirhan (2014, p.281-282) has stated his thoughts about the importance of Twitter as:

> *"Twitter hashtags were widely utilized during the demonstrations, and the Gezi Park movement offers evidence that the social media platform may also be useful in addressing social, cultural, and political issues"*

With the widespread use of social media, the positive and negative effects of social media increase in many different areas, and as mentioned before, it creates an environment for the privacy and protection of personal data flaw. The habit of online shopping via social media is among actions that users frequently perform in their lives and for Köseoğlu and Köker (2015), personal data submitted to website may potentially be transferred to third party companies or used for marketing purposes. Users' web browsing patterns can be tracked and combined with their personal data. According to the results of the research conducted among university students in İzmir, the majority of them acknowledged that social media is a useful tool for staying in touch with friends acquaintances, but they also said that these platforms violated their privacy (Köseoğlu and Köker, 2015).

Due to fact that social media creates a different way of communication, users experience problems in protecting their personal data by ignoring the privacy gap created by the information they share on these platforms.

> *"Social media connects over a billion individuals, and the lack of awareness of privacy and security issues contributes to an increase in cybercrime"* (Arora et al., 2019, p.47).

They mentioned that (2019) social networking sites like Facebook, Twitter, Instagram, and others have provided users a channel to express their feelings freely, but this is raising serious security issues because it could violate anyone's constitutional privacy rights. Different governments apply different practices for social crimes that may caused by the use of social media and vulnerabilities in data protection. For example,

> *"there are no laws governing the transfer of social media data from South Africa to other nations in that region. As a result, any researcher can gather data, listen in all South African social media messages, and analyze them anyway they like"* (Moorosi and Marivate, 2015, p.173).

Another example cites some of the rules the government has imposed on social media users that:

> *"There may be some practices that vary according to the political events and experienced from time to time in Turkey. It restricted access to and made it illegal to upload several types of obscene information, including material that humiliated Mustafa Kemal Atatürk, the founder of the Turkish Republic, as well as material that encouraged prostitution, gambling, child sex abuse, suicide, drug use, and distribution"* (Deibert et al., 2010).

On the other hand, through Külcü and Henkoğlu's (2014) examinations, investigating Turkey's legal system reveals that the country's legal framework falls short of adequately defending individuals' rights and liberties. Hence,

> *"it is crucial that users show greater caution while disclosing personal information on social networks. It is obvious that information specialists in Turkey are more concerned with privacy and have updated their profile settings to secure their personal information"* (Külcü and Henkoğlu, 2014, p.768).

With the effect of develoing internet technologies and social media, governments aims to protect the privacy of individuals, social peace, political stability, etc. with different measures and laws. Zhuravskaya et al. (2020) mentioned that many commentators argue that social media, in particular, the Internet, and global economic, political, and cultural unrest are all amplified by these platforms, and perhaps even more significantly, that these platforms have distinct on politics in both developed democracies and autocratic regimes. According to Müller and Schwarz (2020), social media has not only turned into a platform for the propagation of hate speech, but it also inspires actual behavior. They could shed light on the relationship among internet posts and anti-refugee events in Germany by merging in-depth ocal data on Facebook with consumer material. The idea that some of the correlation they uncover represent a casual effect is supported by a realistic external variation in the interruptions to users' entry to Facebook or the Internet.

Privacy is also discussed in the literature from different perspectives under different disciplines. Martin (2015) mentions that recently researches in the fields of philosophy, law, and information systems have been carried out in order to understand

implicit privacy norms about why and between whom the relations involving information sharing are formed. Also, it is stated that

> *"businesses, the legal community, and public policy attach importance to understanding the value that individuals assign to the protection of their personal data"* (Acquisti et al., 2013, p.249).

Especially in the digital age of the world, the protection of privacy has different meanings for both companies and individual users, and this affects usage patterns and decisions. Even, it is stated that

> *"several types of research provided overarching macro models to explain individuals' privacy-related decision making* (Dinev et al., 2015, p.1).

Privacy controls instincts and shapes behavior as an internal selection mechanism, both in social media and in any area where behavior needs to be controlled. It is stated that

> *"privacy has defined as a state of social withdrawal in a tradition way, and the level of privacy may vary according to the demands of the environment"* (Xu et al., 2017).

In social systems, Schwartz (1968) has talked about the barriers that people put on themselves to protect their own privacy, as he calls counter-patterns of withdrawal, and he also has described a threshold beyond which social contact becomes irritating for all parties.

It is generally believed that privacy can be protected by legal regulation, ethical self-regulation, and privacy-enhancing technology. Like these concepts, the perception of privacy can be confused with different concepts by users and different understandings emerge. In the following sections of the research, detailed explanations about these concepts are given.

2.3. Privacy Related Topics in Social Media

2.3.1. Trust

In many previous studies, it is possible to encounter trust as a motivation for social media use that people have for obtaining gratification and that trust can appear in different types with different definitions. One of them is made by Tang and Liu (2015) as it provides evidence about with whom we exchange information on social media without additional verification that accepted as we trust them. For this reason, it matters for users to trust each other or 3rd parties in social media to access to accurate and reliable information. Trust is an influencing factor in social media by itself. Gefen et al. (2003) were collected under 4 headings and explained in research models as knowledge-based trust, calculative-based trust, institution-based structural assurances trust, and institution-based situational normality trust while Kim et al. (2008) were grouped as cognition-based trust, affect-based trust, experience-based trust, and personality-oriented trust. It is possible to be related the cognition-based part with concepts such as privacy, system reliability, and information security. Although it is difficult to fit the concept of trust in social media into stereotypes and to give a general definition of the importance of the privacy of shared information for users, in favor of social media, the taboos on the privacy of personal information are breaking down, perhaps without realizing it. According to Antoci et al. (2019), social media was created with the aim of reinvigorating trust for social and political participation by offering new opportunities to society. They examined trust in social media from a different perspective and investigated the effects of civility on the feeling of trust in social media. They believed that

> *"the violation of social norms for the polite expression of opinions can be the reason for the lack of trust and trustworthiness of SNS users"* (Antoci et al., 2019, p.86).

Referring to another study, the negative effects of trust and privacy concerns on social media use can also be described.

> *"The concerns have different effects on SNS users' communication with friends online or disclose personal information, trust and other intrinsic or extrinsic*

motivations remove the negative influence on a user's behavior" (Lin and Liu, 2021, p.412).

As mentioned in the literature that

> *"a consumer's choice of a particular social media platform to use may be influenced by the relationship between trust and motivation for sustained intention to use an SNS, and this is also supported by some stuedies in the literature"* (Papadopoulou, 2007; Shih, Lai and Cheng, 2013; Shin, 2010).

It is possible to reach many different investigations and definitions under the title of trust and in social media, it would not be wrong to accept that there is a strong link between trust and social media usage motivations. Especially with the development of social media and the presentation of many different channels to users, credibility has become a bigger problem as the interest in mainstream media has decreased. It is stated that

> *"in an era of information wideness and digital news sharing, social media users resort to the social recommendation cues and perceptions of opinion leadership for the reliability of the areas where they share information"* (Turcotte et al., 2015, p.531).

And the consequence of that study presents a simplified conceptualization of opinion leaders to this credibility problem. As mentioned before, as the place of social media in daily life increases, individuals' privacy control instincts also increase. Although much social media implement privacy mechanisms such as friends only or acquaintances, it is very difficult to provide %100 privacy protection in social media in today's usage frequencies. İt is stated that "trust-based privacy policies help users regulate and control their social data to improve their social media experiences and allow them to specify their own privacy preferences based on their trust relationships" (Li et al., 2011). Another question on the minds of users is the sense of confidence that they hesitate about how their information is secured with photos that are frequently shared on social media. While comparing textual data and image data, photos can deliver more detailed information to the viewer, which is detrimental to an individual's privacy, and Xu et al. (2019) preserved trust-based privacy approaches that consider

the authorization requirements of all related users. Moreover, according to Li et al (2011),

> *"tagging, linking, membership, commenting, or rating are the actions performed by users of social media result in heterogeneous types of relationships and they proposed a trust-aware privacy control for users can use social media mind at peace"*

Since research aims to examine the relationship between social media usage motivations and the perception of privacy, it is obvious with a large-scale literature that the concept of trust in social media with its different definitions makes an important contribution to this paper.

2.3.2. Self-disclosure

Another concept that has been encountered frequently is self-disclosure.

> *"It is one of the main purposes common on social media and also is important for psychological well-being of people. It helps to fulfill the particular needs of individuals with different well-being characteristics"* (Luo and Hancock, 2019, p.110).

Self-disclosure is also defined as

> *"the act of revealing personal information to others"* (Bloch et al., 1971, p.2).

It is an accurate portrayal of the self to others. The desire of the users to express and introduce themselves on social media in some way may cause the privacy of personal data to be violated and to lose self-control over it. At this point, it was seen that the users set their own boundaries despite the unavoidable violation of the confidentiality of personal data, and then, the boundaries and red lines drawn by each user on social media based on their motivation to use the social media are revealed. While such personal boundaries provide desired goals and motivations, they also reduce the security of vulnerability and personal information risks. According to Walsh et al. (2020), while social media sites allow users to shut themselves off from the social network, besides the opportunities, this creates a new challenge: managing the risk inherent in self-disclosing to a large and diverse set of people. However, social media

also gives users the option to share certain things they want with specific people or groups that consisting of an entire network of "friends" or followers, composed of large and diverse audiences. Thus,

> *"generally SNS users prefer to share personal information in a way that everyone in their network can see, as with a Facebook status update or tweet, or make their dyadic exchanges visible to others in the network, as with a Facebook wall post, rather than sharing it between two-to-one conversations"* (Bazarova and Choi, 2014, p.637).

It gives such freedom to users. Everyone exists there as much as they want to share with whom and be known. Users can set these limits themselves. Also, social media sites such as Facebook, offer their users levels of visibility and expect each user to manage it. McDonald and Thompson (2015) mention that the concept of "multiple levels of visibility" provides a common space for persistent and unsymmetrical concerns from users' relations. When social media did not enter people's lives that much, the moments that people called "private" were completely private and unique parts apart from school/work times. Now, all SNS users share them with their "virtual friends" on social media, willingly. Jacobson and Howle Tufs (2013) have also mentioned that

> *"people's personal boundaries are penetrated or re-constituted by the increased use of social media technologies and the contestation over social media offers"*

2.3.3. Ethical Justification

It is possible to mention the positive and negative effects of the concept of ethics, which is very similar to the perception of privacy, and is confused by the users in terms of understanding, the protection of the privacy, and also its definition in social media. Trepte and Reinecke (2011) have mentioned about the self-determination concept to define the right to freely determine what is essential and desirable for living a fullfilling and meaningful life and to allows one's social, cultural, political, and economic development in the life freely. They wanted to underly moral principle and right enables individuals to control access to their private sphere with self-determination. When the perception of privacy is examined on an ethical basis in the literature, it is

possible to define its positive effect in this way, while it is possible to attribute its negative effect to Mill's harm principle (1851/1991).

Since the data in social media vary not only in the terms of form but also in the degree of anonymity, privacy, and potential sensitivity, the research investigates their impacts on mental health and found different implications that ensure to noticed through social media. They have difficulties in meaningful reporting of findings with preserving anonymity and respecting the sensitivity of data, and collection of big data while considering consent, responsible use, and protecting privacy as an ethical challenges during the research (Nicholas et al, 2020). They have tried to turn the scales by producing solutions to these challenges without damaging the perception of privacy, and the effect of social media use on the mental health of users has been examined both in terms of privacy perception and ethical bases.

Another study examining ethical behaviors in social media studied with a focus group that insists thirty-four people of social media users have different frequencies of use, and believed that users are concern about the lack of transparency associated with the "online world". They grouped these users as skeptical and mentioned that only they wonder whether an "ethical code of practice" exists and, if so, what is included (Sloan, 2017).

Also, users' own ethical understanding is the factor in determining the limits and red lines in their use of social media and verifying their usage motivations as mentioned above. According to the results of a study (Stanfield, 2019) in Aotearoa New Zeland among social workers, it has seen that concerns about privacy, security, and ethical issues were identified as the main factor limiting the social media usage by both users and non-users. Unlike in the literature, this study provides participants with the main characteristics that are

> *"perceived to hinder or challenge the use of social media, rather than various types of risks (privacy, reputational, security, ethics), lack of time or information, and employment-related factors, they were presented these factors as possible limitations (users of social media) or barriers (non-users) and were asked to choose what limits or prevents them from using social media professionally in the questions"* (Stanfield, 2019, p.40).

Although users prefer to use social media for different purposes as business-oriented etc., they can limit their use of social media and determine their red lines under common values and the risks they anticipate.

To summarize,

> *"since the use of social media spreads over a wide are under today's information/digital age offerings, the increased use of digital media is accompanied by privacy issues and ethical concerns"* (Kalloniatis and Travieso-Gonzalez, 2020, p.1).

Ethics is defined "the right thing to do" by themselves and they believed that it is the situation of reflecting what they view as good or bad by reconciling with the moral philosophy of an individual or group. Depending on how these individuals or groups perceive the situation they are in, the concept of ethically right or wrong may also change. It has been reached that users who are ethically suspicious while using social media limit their use with some questions that they ask themselves and these attitudes shape their social media usage behaviors. They touched on the questions in the research and these questions are about whether the shared post is excessive, whether the shared content contains false or complex information, and what the impact will be on others after it has been shared. Generally, the issues that cause ethical doubts in the use of social media are the oversharing and, accordingly, exposing their private lives to others too much, and the situations where their content may contain wrong or harmful things because they do not have any authentication system before sharing. Therefore, the use of social media, which is far away from these questions and doubts, that is, unethical, and can cause both physical and virtual privacy violations and personal disclosures.

2.3.4. Personal Data

Social media applications request a lot of personal information from their users. Many of them have become easily accessible due to users' footprints on social media. Since users' personal information and demographic characteristics contain many clues about users abilities, interests, hobbies, etc., social media applications and many other sites use this information to present the right content to users. A study on Facebook's

algorithm by Hitlin and Rainie (2019) found that almost half of users feel uncomfortable in being categorized by Facebook, and nearly a third of them believe that the way they are grouped does not reflect them indeed.

Digital devices and software designed to produce personalized data about people. They aim to use the information produced by the users to make them understandable for themselves again. Lupton (2018) believes that personal data are reliquaries of humanity, testaments to people's experiences, and unique identities like bones. Also, Spiekermann et al. (2015, p.161) have defined personal data as

> *"the new oil of the internet and currency of the digital world"*

As personal data becomes more and more important day by day, its trade has begun to affect the lives of users. This raises the concerns of the users about protecting their personal rights and the privacy of their data. While various technologies that protect and increase the confidentiality of personal data are developing, and many users and structures perceive privacy as an inalienable principle, data markets are developing in the opposite direction and by sharing users' data, it turns into a trade area. This development has become an issue that is very discussed today and affects user behavior in social media, both in the legal, economic, and technical dimensions and in conflict with the perception of privacy in the eyes of some users.

Pangrazio and Selwyn (2019) have defined personal data as

> *"any piece of information that can identify or be identifiable to an individual, in legal terms it is referred to as 'personally identifiable information' "*

While the personal data that users leave on the platforms they use every day increases with the development of digital technology, social platforms are full of users who do not understand and sometimes do not realize where and how their data is used. Different methods are followed for the collection and use of data on digital platforms, some of which consist of the information given to the system by the users themselves and are mostly used for the security of the users in the digital world. Pangrazio and Selwyn (2019, p.3) believes that

"Some types of data are required to be processed by various information industries, and these are personal data received from users through devices and systems on behalf of others"

There are many other concepts that users are affected by while bounding their privacy areas in social media are also mentioned in previous studies. As the use of social media and the prevalence of digital technologies increase, the privacy concerns of users are increasing day by day also. The sharing and using of information on digital platforms make users rethink about using these platforms, while at the same time making them hesitate about the security of their personal information. Except for organizations that use and share users' personal information for marketing or information, malicious users defined as hackers can access sensitive information by tricking other users to steal personal data and gain access to accounts that users consider confidential. A study conducted by Tulane University (2020) grouped data mining, phishing attempts, malware sharing, and botnet attacks as the threats which made by hackers on social media.

2.3.5. Studies Connect Privacy Issues and Usage Motivations

It is possible to reach different motivation scales in previous studies in the literature while they can be collected under certain headings to examine. It would also not be wrong to mention many different motivations that instantly evoke users even for the reasons of using the particular social media platforms. For example, Lin et al. (2017) discussed what kind of actions Facebook and Pinterest made by their users when and in what moods, and revealed that intense social media use has a positive effect on reducing negative emotions. Facebook users' intensity of usage in this platform influenced by the motivation of socialization, entertainment, and information-seeking, while socialization is not a significant motivation for Pinterest users. It explores the relationships between personal traits and motivations for the usage of these two social media platforms. They have used Park et al.'s (2009) scales in understanding the relationship between motivations (socialization, entertainment, self-status seeking, information seeking) and five personality dimensions (extraversion, agreeableness, conscientiousness, neuroticism, openness). This scale is obtained from a given list of 16 statements to respondents regarding Facebook Group use, to assess these groups'

uses and gratifications. They were asked to rate their level of agreement with specific reasons for using Facebook Groups, including information acquisition about

> *"campus/community, entertainment/recreation, social interaction with friends and family, and peer pressure/self-satisfaction, then answers given were adapted from the cluster of categorized dimensions describing online groups participation"* (Lin, 2006; Ridings and Gefen, 2004).

While grouping user motivations in this way appears in many studies, it is possible to find more advanced and detailed scales of motivations in the literature. In this paper, benefiting from different scales, the relationship between users' motivations to use social media and their privacy perception has been examined in detail in a way that has not been addressed before.

Another study conducted between the students who go to college in US and Korea examines the different usage patterns and reasons of people for the rapid growth of social media networks under the title of culture. It explores the effect of culture under individualism and collectivism concepts; has specified the "seeking friends, social support, entertainment, information, and convenience" as the major motives for using social network sites. It has benefited from the uses-and-gratification perspective to understand the motives. They have reached similar major motives between the two countries, even different weights placed on these motives (Kim, Sohn and Choi, 2011). In this study, the motivations of SNS users were grouped based on motivations of internet usage found in the literature. It is stated in the previous works that

> *"motivations for internet uses can be categorized into seven factors: social escapism, transactional security and privacy, information, interactive control, socialization, nontransactional privacy, and economic motivation"* (Ko et al.., 2005, p.58).

Thus, it has been argued that the use of the internet is not only for information purposes but also for entertainment and escape. If turned back again to Kim et al.. (2011) paper, based on the uses-and-gratification theory and motivations for internet usage, only items were selected which are appropriate for SNSs, and the items were modified to fit within the context of this study, resulting in a total of 20 items that users can say the answer to the questions:

> *"I use social network sites to.."* (Kim, Sohn and Choi, 2011, p.367).

They have grouped the answers under basic 5 components in a little more detail than previous studies we have mentioned; *seeking friends, seeking convenience, seeking social support, seeking information, and seeking entertainment.*

The purpose and motivation of people using SNS have been the subject of many studies in recent years and the grouping of the motivations has been placed on different scales based on the uses-and-gratification theory.

> *"This theory is concerned with the usage shapes of individuals of social media, and therefore it emphasizes the importance of the them"* (Raacke and Bonds-Raacke, 2008, p.170).

Based on this theory, Baek et al. (2011) defined 6 motivations as *information sharing, convenience and entertainment, passing time, interpersonal utility, control, and work promotions*, while Whitting and Williams (2013) identified 10 as *social interaction, information seeking, passing time, entertainment, relaxation, expression of opinions, communicatory utility, conveinence utility, information sharing, and surveillance/knowledge about others.* As it is seen, motivations for using social media based on previous studies vary. For this reason, in the study that also benefits from Uses and Gratification Theory (UGT) which predicts the individuals' media choice depends on their both social and psychological needs, *"The ABCD Typology: Profile and Motivations of Turkish Social Network Sites Users",* scales of many people were examined. Basically gathered under seven headings as "*business-oriented, create, socializing, entertainment, status-seeking, communication, and information seeking*." Bulut and Doğan (2017) also stated that the typology of the users is an important factor in the use of SNS and they collect the users under 6 headings by looking at their behavior in social networks as inactives, spectators, joiners, collectors, critics, and creators. When these typologies are adapted to Turkish users, Çiçek and Erdoğmuş (2012) reached 5 titles: inactives, sporadics, entertainment users, debaters, and advanced users. Inactives consist of people nearly none of whom used any kind of social media tool. Average users of social networking sites and content communities are defined as sporadics, these users also have low involvement on blogs and forums. Entertainment users are defined as the most important characteristic that people have

the usage rate of the virtual platforms. Users included the debaters group used almost every social media tool except the virtual platforms. The last one, advanced users used almost all the social media tools in an active way (Çiçek and Erdoğmuş, 2012). As in usage motivations, different titles can be encountered in user typologies in different studies. Bulut and Doğan (2017) adapted the results of different studies on different countries such as Turkey, Germany, the USA, the Netherlands, and Norway with a table. To differentiate SNSs users into homogenous groups, they used cluster analysis to group definitions of users and they found that four clusters can explain the social media usage motivations "Advanced Users", "Business-Oriented Users", and "Communication Seekers", and "Dawdlers". In determining to create and identify the clusters, business is a crucial factor; creating, socializing, entertainment, status-seeking, communication, time, and information seeking are the others as seen in their research (Bulut and Doğan, 2017).

Looking at the past researches, today the use of social media is constantly increasing among different generations and serves different purposes and according to Tan et al. (2012),

> *"concerns about privacy continue to be a topic of extensive research and discussion, especially as Internet, social networking, and other kinds of information sharing become more widely used"*

Also, according to Louise et al. (2017, p.4),

> *"Users of social media think that being able to interact in the social networking environment exceeds the risk of oversharing online"*

In a study investigating privacy concerns in social media based on age, it was revealed that

> *"when it comes to young adults familiarity with privacy rules, they differ significantly from older ones. They are more prone to think that both outside and online, the law exists to defend them. Instead of a casual disregard for privacy, this ignorance in a seductive environment may be a major factor in why so many of them interact with the digital world in a carefree manner"* (Hoofnagle et al., 2010, p.20)

Based of an another study to understand the privacy perspectives of technology users in the Middle East, it is obvious that it concerns go beyond protecting one's limit. Interviewed regarding their personal privacy, participants frequently mentioned cultural norms rather than limitations or personal religious values. They spoke of a constant negotiation of boundaries that their families, and their behavior as to fulfill societal expectations as representatives (Abokhodair and Vieweg, 2016).

The privacy concerns of social media users may vary according to their usage motivations, cultures, personality traits, etc. According to Mohamed and Ahmad (2012), users who are not aware of privacy concerns on social networking sites are prone to keep privacy settings at original. That is to say, it is expected that who are more concerned about the privacy of their information will likely adopt privacy settings on social networking sites to safeguard their private. Kim (2016) also believes that

> *"the degree of sensitivity of the content to be disclosed can indicate how concerned someone is with their privacy in the study that investigate the motives in checking in Facebook"*

Another justification is that

> *"university students who use social media are aware of the dangers of sharing 'very sensitive' personal information and would not do so, regardless of how great they believe the benefits to be"* (Chang and Heo, 2014, p.84).

While social media and internet applications offer useful things such as entertainment, information sharing etc., they also cause users to compromise their personal privacy and the security of their information, and users have varying levels of concerns about their privacy on these platforms. According to a study conducted to analyze the safety about Facebook users' feelings on this platform, participants reported that

> *"feel secure after learning about new privacy controls, performing a Privacy or Security Checkup to verify their settings, and completing extra login procedures such two-factor authentication (2FA)"* (Redmiles et al., 2019, p.408)

Also, according to Jeong and Coyle (2014), while using Facebook is not significantly connected with privacy concerns, but using Twitter is highly correlated with worries

about distant relatives or authorities obtaining their information. In another study examining the privacy perceptions of social media users and its reflection on their behavior mentioned that

> *"even though older users post more frequently than younger ones, their privacy settings are more strenuous than those of younger ones, despite their claims to be more worried about their privacy"* (Reynolds et al., 2011, p.211)

In relation to this, the analysis demonstrates that there is a disconnection between adolescent SNS users' perceptions of privacy concerns and the action they take to defend their privacy. In other words,

> *"despite the fact that young adults indicated the most privacy concerns regarding unauthorized populations, they can still recognize authority individuals"* (Jeong and Coyle, 2014, p.57)

Tsay-Vogel et al. (2016), on the other hand, took a different point of view and mentioned that early adopters usually display higher levels of motivation, self-efficacy, and awareness for the symbolic significance and utility of the technology. It's probable that Facebook's early adopters were it's heavy users, and they having significantly fewer privacy concerns. In general, looking at the litareture, rather than trust in the brand or in other users, the desire for social approval and popularity seems to be more significant driver of online activity. The lack of trust in Facebook may also be attributed to the privacy controversy involving the social network site (O'Brien and Torres, 2012). Teenagers communicate online frequently throughout the day, mostly in SNSs and talks with friends. Teenagers value privacy, but their understanding of the idea is evolving. When specifically questioned, respondants place a high priority on privacy and data protection, but the outcomes in terms of their actual behavior are inconsistent (Soffer and Cohen, 2015). Another perspective explains the thoughts of younger users regarding the privacy of personal data in their use of social media and internet may

> *"really give them anonymity from their parents and other familiar adults, and this is more meaningful to them than the esoteric threats of identity theft and data mining that are frequently linked to online information exchange so this worry adults"* (Steijn and Vedder, 2015, p.14)

Social media's voluntary nature means that

> *"users' information-sharing behaviors are different than they have ever been, therefore people are less eager to reveal their screen identities the more privacy issues there are online. Furthermore, it has been discovered that trust has a favorable impact on how people share data"* (Lin et al., 2019, p.458)

When privacy and self-disclosure are considered together as the concepts that come to mind when the users think about privacy in social media and can be related to each other, Taddicken (2014) mentioned about self-disclosure that due to the audience's isolation in both space and time, it is frequently unknown who and how many individuals are attending. The audience that the self-discloser estimates or intends to reach may not be the same as the audience which is managed to reach.

> *"Consequences for users could be severe: Information that was shared with intimate friends, such as party photos or thoughts on delicate subjects, could cause issues when shared with other groups, including families or employers"* (Taddicken, 2014, p.250)

The analysis demonstrates that

> *"worries about privacy are not a determinant of self-disclosure while the belief that social networks on the Internet are meaningful to society and a predictor for self-disclosure of sensitive data that is both limited and available"* (Schaik et al., 2018, p.288)

As mentioned before, the privacy concerns of users on social media may differ depending on their culture and geography. According to a study conducted social media users in China, discussions about the sensitivity of content , public, trust, and behaviors resulting from privacy calculus and privacy jugdements led to the conclusion that

> *"users used a variety of strategies, including ex-ante, de-identification and persona construction, and ex-post measures, to manage the availability, regulate, visibility, and diagnosability of their contents and accounts in an adaptive role"* (Chen and Cheung, 2018)

By supporting it, Dincelli and Goel (2015) mentioned that a sufficient level of protection through custom security precautions, assistance, and privacy regulations for various nations and cultures may help to lower the amount of security and privacy issues. On the other hand, risk aversion and privacy concerns are related, therefore SNS users who are more worried about privacy concerns are less likely to take risks. They claim that

> *"users worried their private will be disclosed to some inherent risk"* (Makkonen et al., 2019, p.464).

If the opinions of the majority researchers and users are to be placed on a common plane, it would be something like that the global accessibility, engagement speed, multi-modal interaction, device role to play in facilitating, and emotive language of social media are some of its primary features. These features can be utilized to improve privacy and security defense. Due to the issues with online security and privacy, it is necessary to create new methods for SM-based security informatics and to comprehend social media privacy and safety concerns (Chung, 2016).

In the literature it is possible to reach studies that aim to connect with social media usage motivations and privacy concerns. Many of them have carried out their research by gathering motivations under certain scales and including users in these groups. Different cultures trigger different motivations, and they can also cause the issue of privacy concerns in social media use to be addressed in different dimensions. In this study, in addition to the literature, the concerns about privacy perceptions and media consumption of users living in İzmir, one of the city have free and high socio-economic level in a country like Turkey, and who mostly use social media for entertainment, were investigated under different dynamics.

2.4. Social Media Usage Motivations under the Title Privacy Perception

The motivations for the use of social media were grouped with the help of the literature and examined, and by understanding the meanings users attribute to social networks, their expectations from these networks and the perceptual limits of privacy during the situations they may encounter, and whether all of these make a difference in the context of demographic characteristics. Social media usage motivations were

examined under the title of privacy. When social media is mentioned, physical barriers often come to mind, so

> *"people can freely say exactly what they want to say without having any repercussions in this area, therefore many barriers that are seen as serious obstacles in interpersonal communication in social daily life are being destroyed, and the notion that the one is braver in one's own space, one's own territory that means users' personal pages/accounts in social media, seems to be important in influencing the extent of self-disclosure, and adopting with others"* (Ballam and Fullwood, 2010, p.385).

When the literature is examined, it is seen that the motivations for social media usage are discussed based on many different scales. For example, according to Seidman's (2013) research about examining the effect of personality traits on the use of Facebook according to the Big Five, the study was conducted

> *"to determine the effect of usage motivations on the relationship between personality and behaviors"* (Seidman, 2013, p.405).

According to the data obtained as a result of the research, Facebook is a good place for the users to have belongingness motivation and they are so agreeable individuals characteristically while for neurotic individuals, Facebook is not a suitable place to meet this need. It can provide a safe place for them to self-presentation, including hidden and ideal self-aspects. Parallel to this, it is obvious that the purposes of using social media and the enjoyment of it are shaped by the personality traits of users. Also, Bazarova and Choi (2014) concluded that social media functions differ in usage terms users of disclosures with levels of intimacy that occur depending on their SNS users' motives and goals. It is possible to reach studies that classify users depending on their level of use and methods. For instance, according to the 2017 Taiwan Communication Survey (TCS), there have been three types of users based on the motivations for social media usage omnivores, time-killers, and social groomers. Lai (2019) has defined these terms, for example, omnivores tend to engage in social media browsing and react more than time-killers that they use social media to pass time. Besides, if time-killers and social groomers are compared, it is obvious that social groomers are more likely to think about that they have a greater social media response network.

Since social media has changed the people's communication way, it has also been shaping the way people express themselves. Borges-Tiago et al. (2018) describe the reflection of today's communication on social media as

> *"follows; users' language in their communication on social media and their answers are relatively simple, occur in real-time, and echo their emotional states, that are associated with different functions such as the "thumbs up, like, favorite and other similar buttons" in different social media applications"*

Another study examining the behavior of employees on social media about their companies believed that

> *"electronic word-of-mouth (eWOM) motives and employees' perceived community can be predictors in using social media, combined with organizational-level factors"* (Lee, 2020, p.972)

Like the studies above, many past studies examining user behavior in social media are found in the literature. While these are frequently mentioned in this study, it is seen that many of them benefit from different motivation scales. The privacy perception of users on these scales in social media and behavior shaped according to this perception are discussed in this section. Spiliotopoulos and Oakley (2013) emphasized the importance of privacy implications while deciding whether and how users will use an SNS based platforms of their actions. They have also examined that since privacy is a complex concept, the social media ecosystem faced challenges because of this concept.

While social media tools offer users their developed features, the first thing they compromise is the privacy of the data, and unfortunately, users can continue to share while using the applications without paying much attention to this issue. The widespread use of smartphones, where information can be accessed and disseminated much faster than computers, plays an important role in the information flow of the users, and in favor of this, access to millions of applications becomes easier for individuals. This easy access to lots of applications

> *"increased the privacy risks may occur with the increase in global use and developing smart phone technology, also together with more information store"* (Kelley et al., 2013, p.3393).

In developing internet technologies, users' expectations regarding their privacy can be different, and technology companies try to meet the needs of their customers with different opinions by offering particular solutions. According to the research about users' privacy concerns in applications, they have concluded that

> *"people have a sense that there are some privacy issues, but they even don't always know or understand what data is being collected, or how or why"* (Psychoula et al., 2018, p.1894).

As a result of the research, they attribute the fact that elderly people are more open to data sharing than young ones, and this is due to fact that young people are more aware of the privacy risks because of their better technological understanding. Also,

> *"measurement of the physical properties of the user's current environment is done by smart speakers, like other Internet of Things (IoT) devices such as smart light bulbs and thermostats, which are consist of sensors, and the smart speaker voice assistant technologies developed by different companies to respond to instant requests of users, such as Amazon's Alexa, Google Assistant and Apple's Siri, and all of these, Internet of Things technologies pose complex privacy implications"* (Lau et al., 2018, p.102:2).

The way the information is collected here, the collection of information from physical locations, and the ongoing flow of information in almost every activity make some users uncomfortable and end up with some users quitting because of the privacy vulnerabilities. Besides these users, of course, it is necessary to be aware that these companies are among the largest companies in the world and these applications are used everywhere every second, regardless of the privacy gap by some users.

Another example that users evaluate from different perspectives is Spotify which is a music listening application. It has released the new feature with its latest updates that may not be liked by every user due to privacy reasons. It announced that it will prepare and present a personalized song list by listening to the voices of users with a new patent. Here, the aim is to offer its users more personalized music alternatives, but this feature covers more than personalization. According to some users, Spotify can exceed the limits of privacy by guessing users' moods from the tones and rhythms of the users' voices and guessing users' zodiac signs from what they listen to the most, and they are

not afraid to share these confidential data with the users. Users' emotional state, gender, and age can be analyzed as their voices will be listened to for the lists to be presented. At the same time, since the environment of the users can be analyzed while their voices are being listened to, it is possible to detect whether they are alone or with others (even with friends, family, etc.), and music lists can be presented accordingly. The company defends itself in this privacy violation with the phrase

> *"It is common practice for media streaming apps to offer features that provide personalized recommendations to users"* (Spotify, 2022).

Although the Spotify team states that they reject research and applications that violate ethical values and are not transparent about the privacy of users, there will be users who love this feature as well as perceive it as a blow to the protection of personal privacy. After this feature, many users did not hesitate to share these lists, which were prepared exclusively for them, by expressing their satisfaction with their Instagram accounts. As can be seen in this example, the issues that are seen as the violation of the personal red line for some people may become points that do not exceed the limit and even make life easier for others. So, we can easily say that the issue of privacy in social media differs according to how people perceive this issue in their way.

In regard to Tierney et al. (2013), there are two main features in online social networks that trigger users' privacy concerns as User/System Errors and Face Identification. When a user uploads an image to social network platforms, the network might want to share it with just a few individuals, which online social networks partially accommodate through privacy settings and this has defined the User/System Errors. Also,

> *"photo corpora mining can result in the sudden exposure of people's whereabouts or their taking parts in activities. Instances involving facial data mining caused the online social networks to be sued, which furthered their decline respect for the social network's connections' integrity as well as the person" (Tierney et al., 2013, p.75).*

Another argument states that

> *"people's levels of concern about his or her own privacy may change depending on that person's own perceptions and values"* (Waters and Ackerman, 2011).

According to Hunter and Taylor (2019),

> *"the measure of privacy choices was created prior to the social media's foundation, hence it is geared toward a local community instead of virtual environment"*

A measure with more sensitivity the findings due to the social media of today. Although social media applications have their own privacy settings, users may not always use them in a correct way. Fan et al. (2020) maintained that people pay more attention to managing the information uploaded and blocking the transfer of information to their contacts towards whom they do not desire to allow access on the SNSs where role conflict is prevalent. One of the results of Jordaan and Van Heerden's (2017) research on Facebook usage and online privacy is the lack of knowledge regarding how effectively online privacy concerns and internet privacy activities influence Facebook usage intensity. For all these reasons, an extensive literature review was conducted using scales shaped by different personal values and perceptions in this research to determine and classify the social media usage motivations.

2.5. Social Media Motivation Typology Approaches

It is possible to come across different scales used in different research in the literature. Campisi et al. (2015) argued that

> *"historically, internet users are mostly used to do research on medical related topics, however with the growth of social network sites the internet has become not only a channel of getting information but also a channel of disseminating information about personal health, experiences and knowledge"*

According to Oh and Syn (2015, p.2045)

> *"as motivation is one of the key factors that motivate people to carry out actions"*

and as social media develops, different purposes of usage have emerged rather than just getting information. More different and detailed scales were needed to examine and group them. One of these scales used to group varying motivations is mentioned in Chen and Cheung's (2019) search as fear of missing out, trust, immediacy, and social pressure for using non-persistent content to gain gratification. They mentioned about FOMO causes social exclusion, and may be associated with the experience actual, probable, or perceived psychological distance between individuals and communities. Trust is defined as the willingness of a party to be vulnerable to the actions, consciously aware that the other party will carry out their action. It is the motivation sharing, seeking information and disclosing themselves for the majority of social media users, which is one of the important reasons for users' gratification in social media. Also, immediacy is defined as a sense of presence and an experience of realness. Seeking popularity in the social media environment can expose users to social pressure.

> *"Many of the social media functions as accumulate comments or "likes" from peers are created for the purpose of users to be liked and popular, and under favor of them, users feel satisfied"* (Chen and Cheung, 2019, p.69).

They have explained the hypothesis (H1) as accepted in the research: Users' motivations, including (a) FOMO, (b) trust, and (c) immediacy, will be positively correlated with the plessure of producing ephemeral content, whereas (d) social pressure will be negatively associated with gratification. Besides them, Richter and Koach (2008) have varified social media motivations under six different titles identity *management, expert finding, context awareness, content management, network awareness, and exchange*, and these titles are linked to users' purposes of sharing information within the network communities (Oh and Syn, 2015, p.2048). Another study that discussed the the source of motivation for users to share on social media refers to two motivations in sharing online information self-centered and community-related motivation (Ghaisani et al., 2017). They separate these two types of motivation that lead to personal gain and certain help or assistance to the communities. Although it is based on the purpose of obtaining information, there is also the instinct of gaining reputation and helping the community by informing them.

Under the use of social networks for informational purposes, the motivations underlying the content shared by the employees from their individual accounts about the companies they work for have also been the subject of different studies. It is stated that

> *"on various social media platforms, employees voluntarily share important work-related information with colleagues and customers and they deemed this as a form of organizational citizenship behavior"* (Demircioğlu and Chen, 2018).

The psychological ownership motivation is defined by Karahanna et al. (2015) as the drive to engage in behaviors to satisfy the motives (i.e., the need for reflectance, self-identity, and having a place) that are the underlying roots for the psychological ownership. According to them, the use of social media is (partly) driven by people's desire to satisfy the needs because of social media's functions. Another motivation to understand is the use of social media by fans of sports competitions. The investigation explains that

> *"people turn into sport to escape from the boredom or stress of daily life is a major factor driving the attachment to sport and their commitment to sport gives an idea about the motives of the fans and their behavior, and have implications for advancing the understanding of social media and relationship marketing in sport"* (Stavros et al., 2014).

They categorized the social media fan motives under the titles of *passion (love, tribalism, encouragement, praise), hope (ambition, expectation, anticipation), esteem (venting, expertise, sharing), and camaraderie (socialization, belonging, defense, problem-solving).* As a result of the study, social media enables fans to exercise primary motives as mentioned above that are particularly relevant in the social media context.

There is another study that investigates the motivations of social media and their impacts on political participation in China has gathered the usage purposes under 8 headings by associating them with the political behaviors. The motivations' variables they defined as follows: *guidance, surveillance, entertainment, utility, social media news, social media expression, internal political efficacy, and political knowledge*. Chen and Chan (2017) reached the findings that political participation is affected by

different motivations via several pathways. They believed that there is a strong harmony between the use of social media for news (i.e., guidance) and internal political efficacy, and the use of social media for information purposes. It is stated that

> *"social media contributes to social utility by offering many different ways for difficult-to-establish communications in daily life"* (Chen and Chan, 2017, p.6).

In addition to this, the effect of social media in scholarly communication has been investigated and it has been reached that it provides different meanings among users by using it with different motivations. Manca and Ranieri (2017) believe that the use of social media in corporate life strengthens relationships, facilitates peer collaboration, publishes and shares research products, and adds value to team discussion of research in open and public formats. They benefit from the scale that consists of 8 motivations to use social media because of academic reasons as *to keep in touch with colleagues, to extend the professional network, to share profession all interests, to give visibility to professional results, to promote initiatives related to the job, to be part of a professional community, and other reasons*. When comparing the identified reasons, numerous criteria such as frequency of use, gender, age, years of teaching, academic title, and disciplinary field should be considered. The study's conclusion reviewed and so,

> *"the variables age, years of teaching, and disciplinary field were found to be relevant factors in the shaping of scholars' attitudes towards social media, and their effect is greater, especially on specific channels, while gender and academic title showed limited impact on scholars' motivations for social media sites that were considered in the study"* (Manca and Ranieri, 2017, p.134).

Because macro-level motives are less clearly noticeable in the overall population than are reasons to adopt a particular item, Shao et al. (2015) had a study about Facebook users' motivation-based typology, and they mentioned that there is a greater interest in the motivation as *Socializing, Entertainment, Self-status seeking, and Information seeking*.

Social media has become a powerful marketing platform for today's brands with developing technologies. And not for all fields, according to Hansen and Levin (2016), while a company might anticipate that all of its personnel will equally participate in

conversations about the company on social media, they hypothesize that those working in sales and marketing roles in particular are more likely to follow through on their aspirations to use social media technology. In a study conducted among employees of an international fashion company, it has seen that the sole prerequisite for participation was the use of Skype, Yammer, or Asana, which the organization already utilizes for communication within the company (Valdez et al., 2017). Due to this and some other job definitions, the purposes of users to use social media in their daily and business lives may vary, especially personnel in customer support, selling and promotion are more likely to follow through on their positive motives and more likely to succeed desired results from using social media technology that engage with their customers (Hansen and Levin, 2016). Also, millennials are more inclined that any other generation to like, follow or pin organizations and brands.

> *"When millennial customers would like to engage with businesses and brands online, Facebook is the most widely used SNS, and compared to users of bigger SNS, Pinterest has the highest revenue conversion ratio"* (Nelson et al., 2019, p.611).

Another point of view is that

> *"the use of technology in the workplace is increasing, and perceived stress or more specifically, anxiety related to technology that staff feel difficult to manage, is a problem that affects all types of business"* (Oksa et al., 2021, p.2).

Also,

> *"due to millennials' ease and familiarity with digitalization that has encircled them their entire lives, refers to them as "digital natives" in the literature"* (Krishen et al., 2016, p.2).

Social media also has negative effects on the disconnection of the old generations with the new ones due to their growth away from digitalization. For example,

> *"one benefit of getting older in a technologically advanced world is that new generations consider multitasking easier than the older relatives do, for instance, using Facebook and writing a paper at the same time"* (Krishen et al., 2016, p.2).

Due to millennials' familiarity with computers,

> *"they are more likely than their parents or grandparents to be social media users and online customers, and they are aware of the "digital transformation" that is reshaping every organization, including business, governance, pleasure, medical, and social interactions"* (Fietkiewicz et al., 2016, p.3831).

Differences arising from this and similar usage habits also affect social media usage purposes among different generations. According to a study of Polish young people from the generation Z, it is crucial for the research that the responses like "used to, but no longer do" and "have never used". They highlight both technologies with room for enhancement and tools that participants once engaged but eventually rejected for a variety of reasons. A good illustration is Skype, which the participants were aware of but no longer use (Krol and Zdonek, 2020). According to their study, the respondants listed lots of social networking platforms such as Aliexpress, Teams, Tiktok, Netflix, Wattpad etc. Some of these networks are geared for professionals or a particular user base, and again making them less well-known than Facebook, for instance. Another study on the social media use motivations of adolescents believes that

> *"the Motivations for Social Media Use scale (MSMU) was best described as having four components, namey motives linked to connected to social, fame, appearances, and values and preferences and the results showed that this scale had a satisfactory convergent validity, with the reasons for using social networks that are most significantly connected with accepting media standards of beauty and poor self-esteem including aesthetics and getting more popular"* (Rodgers et al., 2020).

Also,

> *"SNS include networks of customers, relationships between customers and brands, and networks between brands in addition to networks of customers"* (Azar et al., 2016, p.156).

Azar et al. (2016), who examine users' interactions with brands on Facebook, mention that user-to-content and user-to-user interactions with brands are gathered under 5 main motivations: *Social influence, Search for information, Entertainment, Trust, and*

Reward. Also, Enginkaya and Hakan (2014) define the five diverse and trustworthy motives as *brand affinity, communication, opportunity searching, entertainment and examination* in their studies in which they investigate what triggers customers in their relations with brands via social media. Social media offers tremendous opportunity for businesses to connect with their custemers by encouraging a feeling of community through conversations and interpersonal connections (Kim and Drumwright, 2016). Due of these possibilities, it plays a significant role in enhancing user relationship with the brands through the use of social media and emerging technology. The promotion of products, services, data, and concepts through internet and social media can be seen as a new area and a commercial technique called as social media marketing.

> *"Utilizing online platforms, as well as its related technology and functions, in collaboration with other methods of marketing tools, is included in the definition social media marketing"* (Dahnil et al., 2014, p.120).

Findings from the literature demonstrate that

> *"the significance of social media practice in determining attitudes regarding purchasing digital products, which are eudaemonic improved significantly, so it implies that SNS serve as spaces for combining eudaemonic experience, emotional engagement, and social connection"* (Chi, 2013, p.46).

Swani et al.'s (2017) study shows that B2B social media messages containing organizational brand names have a greater number of reactions than B2C messages on social media containing the same.

> *"The number of reactions and commentaries on the content is a sign of company image and so a crucial metric executives to assess brand involvement and reputation"* (Swani et al., 2017, p.83).

According to Hallikainen (2014), the intended use of the social media sites is determined by user requirements and values, and he identified five types of values that have an impact on how consumers make decisions: practical, societal, emotional, intellectual, and dependent values. He assert that

> *"these classifications are in keeping with past studies on value conducted in many fields, including such sociology or psychology"* (Hallikainen, 2014, p.12).

Karahanna et al. (2015, p.186) mentioned that

> *"social media provide a place that fosters the growth of psychological belongingness, and users of social media might grow a sense of psychological belongingness to their virtual possessions, efforts, and groups even though they are not legally proprietors of the platform".*

Chi (2013) argued that people used SNS for a variety of reasons, including group self-esteem and and a need to integrate in, so the way in which people utilize social media platforms should be influenced by psychological well-being to drive users positive.

With the development of social media, its use for engagement purposes has also increased to meet the daily communication and socialization needs of users. It's growth and popularity have caused the social media to go beyond its original purpose as a way to communicate with friends and family, and

> *"become a vital marketing platform utilized by businesses all over the world, and also the advancement of technologies like social networks, blogs, and online forums allowed people to start sharing their thoughts and presenting themselves using their unique ways, which has a significant impact on individual lives and cherished nations"* (Mooney, 2018, p.17-18).

In the light of these developments, information sharing on social media has also increased, and users aim to share their own experiences, thoughts and opinions, both with their followers and other users, and to increase their personal interactions. Chen (2015) argues that the women bloggers clearly were driven by both interaction and knowledge, but these motives plaed in contrast to pleasure. Some sites may be especially created for informational motive, whereas others may try to meet involvement or entertainment goals. At this point, motivations such as blogging or influencing, which can cover both informational and entertainment purposes, become the some of the main factor for users. According to Croes and Bartels (2021), it is crucial to comprehend why teenagers follow influencers on social media and the benefits they derive from doing so because they are spending more and more time online.

> *"Social media has become as a tool that influencers are using for self-branding as they attempt to create a distinct public persona that is targeted at a specific group. Influencers in social media are transformational change leaders of thoughts and brand representatives for goods and services"* (Croes and Bartels, 2021, p.2).

As social media serves different purposes, it is also used by influencers by triggering different purposes as well as fashion, beauty, travel, education etc., and social media users follow the influencers who share contents that serve this purpose according to the purpose of using these online platforms.

CHAPTER 3: METHODOLOGY

3.1. Semantic Network Analysis

For this research, a questionnaire with open-ended questions was prepared to obtain free associations of individuals, and the obtained data were subjected to semantic network analysis. Doerfel (1998) has defined semantic network analysis as

> *"a technique of network analytics used in paired relationships based on shared meanings. Network analysis is an appropriate method to analyze participants' perceptions about the subject studied".*

Particularly, it contributes to research in many fields of social sciences. The network analysis approach is preferred because it is complementary to component-oriented analysis approaches for examining social systems in many research subjects such as defining mass behaviors, agenda-setters of social media, and analysis of interpersonal communications (Gençer, 2017). In this study, while examining the limits of the privacy perceptions of the participants in social media, semantic network analysis was used to define and group the usage behaviors. The questions were asked to participants to understand their perspectives on social media and how they determine their privacy views and limits while using these channels. The answers given by the users to the survey questions according to their understanding of privacy in social media were based on semantic network analysis and helped to reach the results of this study.

Semantic network analysis consists of both operationalizations, analysis of text, and shared interpretations. This approach was needed because traditional network analyzes do not cover all of these topics.

> *"In semantic network analysis, there are two nodes, i and j which are sharing the meaning as inferred by coders' interpretation of these nodes' language, and they have represented by a link in the interpretations network"* (Doerfel, 1998, p.23).

It is based on word frequencies and associations.

In previous studies, semantic network analysis was used in studies on many different subjects such as ontology, cultural changes, social sustainability, etc. For this research,

semantic network analysis was used to investigate the structures of answers of the participants about their perceptions of personal privacy on frequently used social media platforms.

3.2. COBRA Theory

Another theory utilized throughout the research is the consumer theory known as COBRA. Brand-related activities of consumers are the examination of this theory and it aims to draw a theroretical framework for understanding consumers' behavioral interaction with brands on social media. In the literature, COBRA theory is comprised of

> *"consumers' interactions about social media and engaging in the consumption, contribution, and creation of media content that varies according to the extent of these and a set of brand-related online activities on the their sides"* (Schivinski et al., 2016, p.66).

As mentioned above, COBRA is a brand-oriented theory, and in this research, the concepts mentioned in general about it were used. In theory, how social media users communicate with the brand and how they set limits for themselves are mentioned. In this study, the thoughts of social media users about the brands' access to and use of their personal information for advertising and marketing activities were emphasized, and it was investigated as to how these affect the privacy limits in social media.

In the past research, the communication of social media users with brands based on the COBRA theory was gathered under three headings; consumption, creation, and contribution. Consumption means that when users see content related to a brand, they watch it or review the image, which means the users consume the brand's content. Contribution is defined as consumers' liking or commenting on the brand's content, that is, contributing to the content offered by the brand, where social media users are deemed to move from their role of observer to the role of media contributor in the feed. Also, creation is defined as users uploading brand-related content to their own social media accounts, and in this case, they are considered as producing brand-related content on social media.

3.3. Sampling

The research participants consisted of a total of 320 people who live in İzmir with different education levels and age groups determined before. Approximately 40% of the sample is women, and the remaining 60% are men. The chosen sample which consist of 320, was divided into two groups A and B groups, and the analysis was combined and carried out as a total. The criteria for determining the sample size were calculated by considering Malhotra's (2010) distribution of the data or the heterogeneity of the population, the confidence level, the error range, and the number required for the estimation of the smallest subgroup in the sample. Quota sampling is used in the research,

> *"in which the participants are classified using features such as age, gender, education level, income level, etc. It has been used because a population sample , which ensures to full representation of the investigator desires, is realized by quota sampling"* (Acharya et al., 2013, p.332).

Since there is a universe where the use of social media is concentrated, it was aimed to use the phase that is closest to this universe, and quota sampling was used. Also, it is faster and cheaper to organize and implement, it can be done in a short period of time without the need for complex skills to Im and Chee (2011).

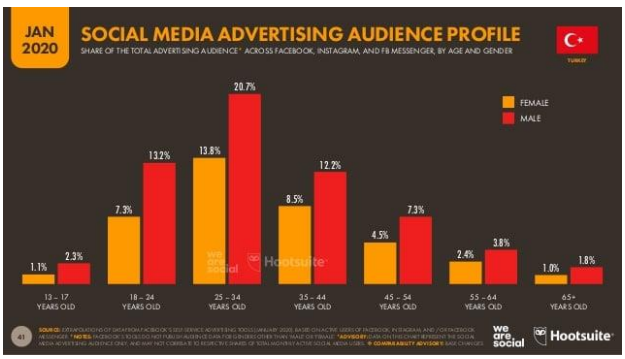

Figure 1. Social Media Advertising Audience Profile, Digital 2020 Hong Kong

The research was conducted among the residents of İzmir in the whole sample, keeping the variable of living in the third-largest city of Turkey constant, since it is original content and establishes a link between the motivations for use of social media by the users, their demographic characteristics and the importance they attach to the protection of personal data in the channels they use has analyzed. As a result of them,

the analysis was carried out by grouping the participants according to their age and education levels under the gender heading. Figure 1 shows the table used to determine the sample to which the survey is applied. While deciding the distribution of male and female ratios by age, the spread of the "Social Media Advertising Audience Profile, January 2020" graphic was used.

Based on this graphic, the quota in Table 1 was prepared considering the education level in the distribution of male and females, and a survey study was carried out on the appropriate sample.

Table 1. Quotas of the research: Distribution male and female participants under their education level

	Quotas	**Objective**
Age		150
13-17 Female	1%	2
13-17 Male	2%	3
18-24 Female	7%	11
18-24 Male	14%	21
25-34 Female	14%	21
25-34 Male	21%	32
35-44 Female	8%	12
35-44 Male	12%	18
45-54 Female	5%	8
45-54 Male	7%	11
55-64 Female	2%	3
55-64 Male	4%	6
65+ Female	1%	2
65+ Male	2%	3
SES		150
A-B (University)	30%	45
C1 (High School)	30%	45
C2 (Secondary School)	20%	30
DE (Primary School)	20%	30
Province		150
İzmir	100%	150

When the survey is applied to the determined sample, it is possible to group based on the information obtained about the social media usage of the users. Since the use of active/passive social media can be positioned as the direct exchange between users, producing content, or following others without direct interaction, it is also possible to find out how often and for what purposes the participants use certain media from their answers to the questions (Verduyn et al, 2017). As mentioned in previous sections, the

quota sampling method was used while determining the participants in this study. Quota sampling, according to Moser and Stuart (1953),

> *"is a non-probability sampling approach where the sample of people obtained corresponds to the proportions of people for the overall population of interest"* (Lamm and Lamm, 2019, p.55).

3.4. Data Collection and Coding Procedure

The research was conducted from May 2021 to October 2022. To reveal the relationship between the parameters that were previously mentioned as age, gender, and education level, and the perception of privacy of individuals, to obtain free associations with them, a questionnaire including open-ended questions also was prepared and applied to the determined sample. The obtained data were subjected to semantic network analysis. Projective techniques were used during the survey. This method,

> *"which was designed to reveal the emotions and thoughts that the participants have difficulty in defining, makes use of free associations and personalizes the topics that are considered "sensitive" in the society, and allows the participants to explain them with their own definitions"* (Doherty and Nelson, 2010).

The respondents answered mainly 7 questions which were divided into 2 parts. The first part consists of 6 questions. One of them is multiple choice and the other five are open-ended questions. The second part consists of 1 question. This question consist of 18 sub-statements about social network sites (SNS), which the participants answered by grading their opinions from 1 to 5. Since the questions in the research were about personal values and the perception of privacy, the confidentiality of the participant's identity was taken care of throughout the study and it was ensured that it remained anonymous. There is complete confidentiality in the research. The decision to participate in the research was based on the participant's request and also they were informed about the right to refuse to participate if they did not wish to participate or they are free to leave any part of the questionnaire.

After the data was collected, it was organized under the coding system, and the coding phase was started. While the answers of the participants were made suitable for coding,

they were first arranged as nouns or adjectives, and then different answers that had the same meaning as each other were grouped under the same word headings. Then, the data were analyzed by placing them in the program in accordance with the semantic network analysis.

3.5. Application and Semantic Network Analysis

For semantic network analysis, the data were analyzed in the Pajek program.

> *"Pajek is a program package for the analysis and visualization of large networks. There are six different types of data (objects) that are used to perform networks: network (graph); partition (nominal or ordinal properties of vertices); vector (numerical properties of vertices); cluster (a subset of vertices); permutation (reordering of vertices, ordinal properties); and hierarchy (general tree structure on vertices)"* (Mrvar and Batagelj, 2016).

> *"The semantic networks are a sort of graph and are created from a set of vertices (or nodes) and a set of directed and labeled edges. Concepts are represented by vertices or nodes, and their semantic links are represented by edges"* (Pirnay-Dummer et al., 2012).

Graphs are used to show direct connections between vertices or nodes, and they believed that this is one of the most advantage of this method. In many complex systems, nodes represent the connection between the units and edges of the network system. According to MacKay et al (2020), while some connections are symmetrical, many are directed. In a directed network, it is possible to give each node a height that, on average, increases by one along each edge (MacKay, 2020). In the research, we have a directed network which means we have a system where we can specify directions between nodes in the graphs.

3.6. Trustworthiness of the Research

As stated in the previous sections, this study surveyed to determine the approaches of users regarding personal data which is also expressed as the consumer footprint of social media, and evaluating them comparatively according to their demographic characteristics. The questions used in the research also include open-ended questions

that provide an opportunity for users to put forward their own statements. During the survey, the participants were allowed to explain the topics covered during whole the research with their own definitions, enabling the participants to reveal their feelings and thoughts that they had difficulty defining. This research, it is aimed to explain the limits and thoughts of the participants by making a connection between their social media usage and their privacy perceptions by using projective techniques. Since the research subject was also on the perception of privacy throughout the research, the confidentiality of the participants and the survey was taken as a basis, and there was no question of duplicating the data and sharing it with third parties.

In the past researches, Guba (1981) has defined the terms appropriate to the trustworthiness of the research as these four aspects: credibility, transferability, dependability, and confirmability. He has defined credibility as "member checks" which means testing the data with people included in the relevant data groups. About transferability, belief rather than developing statements of "truth" with general applicability, it is more about idiographic or context-relevant statements. Dependability, on the other hand, is more associated with the stability of data and deals primarily with the processes of the inquiry. Towards the concept of confirmability of the data, they have suggested two steps triangulation and practicing reflexivity to arrange for a confirmability study.

Credibility has defined by Roberts (2010, p.43) as

> *"a long-studied consept with "plentiful, incosistent, and convoluted" literature that inspired a number of operationalizations meant to estimate its ephemeral character."*

Regarding the validity of the data, Pajek software system

> *"- which is a popular Software for drawing networks and can be used to compute most centrality measures, identify structural holes, and other things –was used to generate the visual and numerical results obtained in this study"* (Akhtar, 2014, p.389).

To ensure full confidentiality in the research, as stated before, the personal information of the participants that would reveal their identity was not requested within the scope

of the research. In the study, individual opinions and responses of the participants are not included, instead of them, collective findings have used. In addition, the researchers do not have any information about the identities of the participants, as the participants used nicknames throughout the research.

3.7. Survey Questions

The questionnaire was prepared in the language of the participants, namely in Turkish, and was carried out on the previously mentioned 320 samples. It consists of seven main questions in total. The survey starts with basic questions to reach general information about the social media usage of the participants and continues with questions that will reveal the details of their usage motivations and privacy perceptions. The last part of the survey which is the 7th question is related to why the user is using SNSs. SNSs are social networking services or social networking sites. It includes platforms like Facebook, Instagram, Twitter, blog, etc. The questions were designed and presented in order like this:

1) How many hours do you spend on social media on average per day?

2) For what purpose do you usually use social media? Why? (Give at least 3 reasons.)

3) When you see the content from the brand on social media, does it botter you to share it with your friends (family, friends, etc.)? If yes, why? If no, why? (Give at least 3 reasons.)

4) Suppose you have correctly recorded your personal information (name, surname, place of residence, etc.) on social media and that this information can be seen by people you do not know. Does this botter you? If yes, why? If no, why? (Give at least 3 reasons.)

5) Do you mind entering your mandatory personal information while using social media accounts? If yes, why? If no, why? (Give at least 3 reasons.) If the answer is yes, answer the 6th question; if no, you can proceed to the next part of the survey.

6) Complete the following sentence:

7) When using my social media accounts, entering my personal information incorrectly (such as using a fake account) makes me feel better because… (Give at least 3 reasons.)

8) The following questions are about why you are using SNS. Please tick up the value from 1 to 5 that best fits your feeling.

The reason I use social netwoking sites is…		I strongly disagree		Notr		I strongly agree
		1	2	3	4	5
1)	To learn things I don't know, including news.					
2)	To learn useful things.					
3)	To acquire new knowledge and ideas.					
4)	To express my feelings to my family and friends.					
5)	To talk with my family and friends about my problems and to get advise.					
6)	To inquire or learn about my family and friends.					
7)	entertainment					
8)	To relax and have a good time.					
9)	To spend time.					
10)	To obtain economic (material) incentives and benefits such as gifts, prizes, raffles, discounts, etc.					
11)	To achieve my personal wishes, such as a custom software					
12)	To obtain secure and easy applications required for business such as online banking.					
13)	To tell others a little about myself.					
14)	To provide personal information about myself.					
15)	To present my knowledge and experience.					

b) The following questions are about your personal use of SNSs. Please tick up the value from 1 to 5 that best fits your feeling.

		I strongly disagree		Notr		I strongly agree
		1	2	3	4	5
1)	I tend to passively consume the content of certain brands, services or companies on social networks (SNS) in the form of watching, reading, listening, playing or downloading instead of actively participating in content creation.					
2)	O often participate in conversations on SNS (social network sites) about the content of certain brands, services or companies, by commenting or evaluating.					
3)	By writing detailed comments or articles, uploading relevant content etc. I am actively involved in producing content about certain brands, services or companies on social networks.					

CHAPTER 4: FINDINGS AND ANALYSIS

In this section, you can access the analysis of the network analysis questions in the survey and analyze them with the help of Pajek software. Four out of seven questions were analyzed with this method. Since two of them (questions 3 and 4) were presented to the participants as yes or no and why, the data of both answers were analyzed separately. Also, each question touches on different points about the social media usage and understanding of the participants, so the analyzes of the questions are presented seperately in this section.

In the analysis of each question, input and output degree measures are presented in independent tables. According to Batagelj and Mrvar (2016) from the reference document of the Pajek,

> *"the input degree means the number of lines into vertices and the output degree states the number of lines out of vertices."*

Capocci et al. (2006) defined the input and output degrees with also the words incoming and outcoming, because of being versatile, in the research they examined Wikipedia graphics; moreover, they mentioned that

> *"the probability of acquiring new incoming and outgoing edges has increased by a large number of incoming (in-degree) and outgoing (out-degree) edges of a node, respectively."*

In social networks,

> *"there are two fundamental components vertices and edges in graphs; a pair of vertices define the edges, and a wide variety of individual entities are represented by vertices according to the application field in the network"* (Oliviera and Gama, 2012, p.101).

In the network terminology, vertices are equal to nodes and edges are equal to link/connection in the computer science, and in this research, since the networks consist of inputs and outputs, that is, they are bidirectional, edges are not encountered. Relationships between nodes are expressed with concepts such as arcs, lines, and ties.

4.1. Analysis of Question 2: For what purpose do you usually use social media? Why?

4.1.1. Semantic Network Analysis Metrics of the Network

Table 2. Semantic Network Analysis of Social Media Usage Motivations

Number of nodes	62
Total number of lines	369
Number of lines that have value 1	218
Number of lines that have value more than 1	151
Density of the network	0,097
Average degree centrality	11,903

Table 2 summarizes the semantic network analysis of the social media usage motivations of the participants. The number of nodes is 62 and it refers to the total number of intended purposes of the participants after grouping their answers by the synonyms. These nodes create 369 lines in total, while 218 of them are equal to 1 and the rest of them have a value of more than 1. Network density is defined by Li et al. (2017) as

> *"the ratio of the actual connected number to maximum connected number between the network nodes."*

Considering Lee et al.'s opinions (2014, p.952),

> *"the average strengths of ties within a network has represented by the term density that captured through dyadic information exchange frequency."*

Network density gives information about the intensity of the network by expressing the connections of the participants with each other, and takes a value between 0 to 1. For this network, density is closer to 0 with the value of 0,097. Although it does not give detailed information about the topology of the network, the distance to 1 shows us that the network is noncohesive and less dense. Also,

> *"the density of the network plays a role in how well different centrality measures correlate to one another" (Valente et al., 2008).*

According to Ergün and Usluer (2016, p.37),

> *"the degree of an actor's direct relationships with the other network members are displayed by degree centrality"*

in other words,

> *"it represents the number of direct connections of the actors"* (Zafer, 2012).

In accordance with Brodka et al. (p.238, 2011),

> *"The relative importance of a node inside the network is indicated by degree centrality."*

The average degree of centrality here is 11,9. Its high level means an active and binding actor role in the network. Here, it refers to 11,9.

4.1.2. Valued Core Analysis

Table 3. All Max Valued Core Values

Dimension	62
The lowest value	2
The highest value	20

Core values, according to Collins and Porras (1996),

> *"are the fundemental and enduring principles of the network. They are significant to those who are involved in the network and have inherent value."*

Table 3 shows the lowest and highest values of the network. According to this, attributes of the network are tied with at least 2 and at most 20 lines.

Table 4. Valued Core Partition

M slice	Num	Threshold
0	0	0.000 or less
1	34	(0.000-1.000]
2	6	(1.000-2.000]
3	2	(2.000-3.000]
4	3	(3.000-4.000]
5	2	(4.000-5.000]
6	3	(5.000-6.000]

Table 4 (continued). Valued Core Partition

M slice	Num	Threshold
7	3	(6.000-7.000]
8	2	(7.000-8.000]
11	1	(10.000-11.000]
12	1	(11.000-12.000]
14	1	(13.000-14.000]
15	2	(14.000-15.000]
20	2	(19.000-20.000]

About valued core, which is also called m-core or m-slice: from the definition of De Nooy (2010),

> *"it is a type of subgraph which has a maximal connection with considering only lines with minimum value (or multiplicity) m."*
>
> *"A subgraph with an m-value that has the edges with weights equal to or greater than m and nodes that are contiguous to these nodes is represented by all this"* (Goyanes and de-Marcos, 2020, p.796).
>
> *"Vertices in an m-slice are linked to at least one other vertex by lines with a m or greater line value"* (Yu et al., 2011, p.565).

From Table 4, it is possible to say that 34 of the nodes take the value 1-slice.

In Pajek's regulation, it is mentioned that the values of the rows can be used instead of counting the rows while calculating the value core, and at this stage, the sum of the rows or the maximum value can be used. To examine the dense part of the network, 28 elements between 2 and 20 were analyzed and participated in the valued core analysis. Table 4 shows the distribution of the number of elements in this range and their threshold ranges.

In Figure 2, it is possible to reach the most valued purposes in social media usage in the sample. According to the figure; "to have fun" is the most important reason for social media usage with a value of 1.00. In order of importance in this network, to rank in the top 10, they are followed by "news tracking", "to communicate" and "to spend time", "follow the agenda", "to get information" and "watching video", "to socialize" and "to follow others", and "to follow friends" with decreasing values.

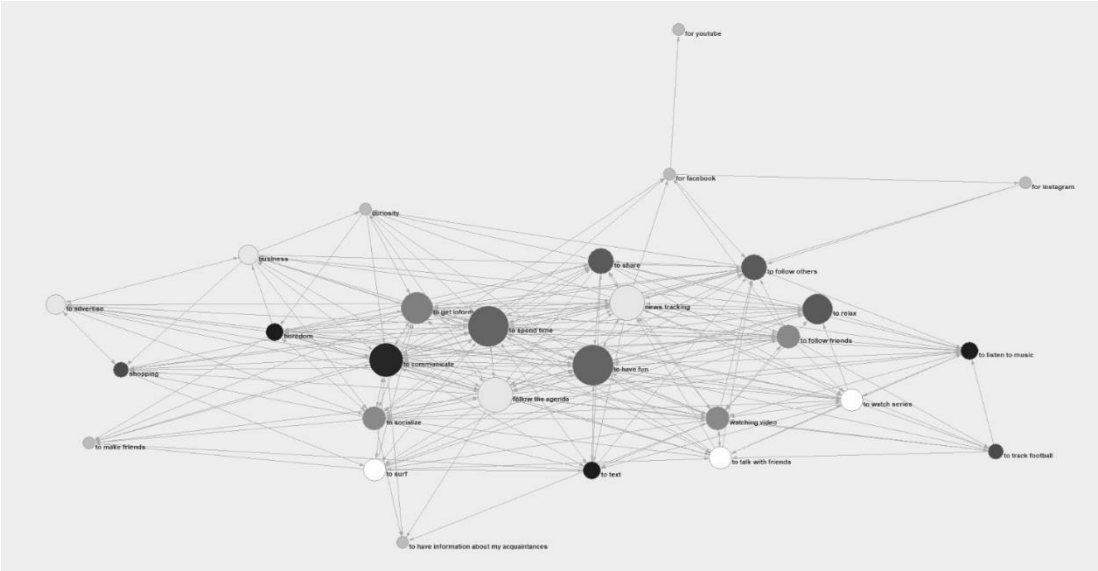

Figure 2. Valued Core of Social Media Usage Purposes

4.1.3. Degree Analysis

Table 5. Input Degrees

Rank	Vertex	Value	Id
1	21	10.00	to have fun
2	18	0.963	news tracking
3	12	0.778	to communicate
4	10	0.778	to spend time
5	11	0.704	follow the agenda
6	2	0.667	to get information
7	1	0.667	watching video
8	3	0.593	to socialize
9	25	0.593	to follow others
10	4	0.556	to follow friends
11	22	0.481	to watch series
12	17	0.481	to listen to music
13	13	0.444	to relax
14	27	0.444	to share
15	15	0.333	to talk with friends
16	26	0.333	boredom
17	14	0.296	business
18	42	0.296	shopping
19	6	0.259	to surf
20	24	0.259	to text
21	20	0.259	to advertise

According to Piotr et al. (2011),

> *"the relative importance of a node is indicated by degree centrality within the network".*

Also, Kadry and Al-Taie (2014) mentioned that

> *"for directed networks, it is crucial to distinguish between in-degree and out-degree centrality, as was the case in this study. Degree centrality regards nodes with the highest degrees (number of neighboring edges) as the most central."*

> *"Degree centrality, closeness centrality, betweenness centrality, etc. can be identified by several methods to explain their influences on nodes in social networks"* (Amedapu and Velusamy, 2015, p.1179).

In this study, the analyzes were examined on input and output degrees, taking into account the degree of centrality, closeness, and betweenness methods. Concerning to Hansen (2011),

> *"degree centrality is a straightforward count of all connections that are connected to a vertex."*

They defined output degree (out-degree) as

> *"the number of connections that originate at a vertex and point outward to other vertices, whereas input degree (in-degree) as the number of connections that point inward at a vertex."*

> *"When a directed network is encountered as here, a directed spanning tree which is included to the underlying network is required (the network is then recognized as quasi-strongly connected), implying that the root agent can transfer its information to all of the others"* (Jia and Tang, 2012, p.3015).

In the light of these, it is possible to indicate that the connections between 2 points are represented by arrows from source to receiver in the resulting graphs in the directed graphs. Table 5 represents the 21 input degree values of nodes in a total of 62.

According to Table 5, it can be said that “to have fun” is the leading answer according to this measure and takes the highest value of 1.000. All other values are ranked between 0 and 1, and depending on the order it is possible to indicate that the purposes such as “sharing video”, “follow”, “shut up a girl”, and “read an article” take part at the end of the list and it means that they are not considered as the main motivation for social media users.

Table 6. Output Degrees

Rank	Vertex	Value	Id
1	10	10.00	to spend time
2	12	0.852	to communicate
3	18	0.852	news tracking
4	11	0.778	follow the agenda
5	21	0.778	to have fun
6	1	0.704	watching video
7	2	0.667	to get information
8	3	0.593	to socialize
9	26	0.556	boredom
10	27	0.518	to share
11	4	0.481	to follow friends
12	22	0.444	to watch series
13	15	0.407	to talk with friends
14	14	0.407	business
15	6	0.407	to surf
16	13	0.370	to relax
17	24	0.333	to text
18	25	0.296	to follow others
19	20	0.296	to advertise
20	17	0.296	to listen to music

Another criterion is output degree which means the number of links of a node forward to others. Table 6 symbolizes the output degree values of 20 nodes out of 62 in the network. Input and output degrees have different meanings and differ from each other, so it is necessary to deal with them from different points of view in network analysis.

“To spend time” is the most central motivation in this network to measure degree centrality as seen in the output degree table (Table 6). By looking at this table, it can be said that some social media usage motivations are evaluated very closely by users as “to relax”, and “to text. Also, some output degrees are closer as “shopping”, “to value free time”, and “curiosity”.

4.1.4. Closeness Analysis

Table 7. Input Closeness Degree

Rank	Vertex	Value	Id
1	21	10.00	to have fun
2	18	10.00	news tracking
3	12	0.947	to communicate
4	2	0.910	to get information
5	11	0.910	follow the agenda
6	10	0.910	to spend time
7	1	0.887	watching video
8	25	0.855	to follow others
9	4	0.855	to follow friends
10	3	0.845	to socialize
11	22	0.826	to watch series
12	17	0.826	to listen to music
13	13	0.807	to relax
14	27	0.780	to share
15	26	0.772	boredom
16	42	0.763	shopping
17	14	0.747	business
18	24	0.732	to text
19	20	0.724	to advertise
20	19	0.724	curiosity

As mentioned in the above parts, several algorithms used in social network analysis to measure the centrality, and according to Park et al. (2013), degree, closeness, and betweenness are the most widely used centrality measures and these measures, not only vary in their applicability to non-directed and directed relations but also they have differentiation at the individual actor and the group or complete network levels. According to Okamoto et al. (2008),

> *"the measure of a vertex's proximity to every other vertex in the graph is called closeness centrality."*

In other words, it is the opposite of the typical shortest parth from the vertex to any other, as they have stated. Also, Crezcenzi et al. (2016) noted that

> *"closeness centrality is a well-known indicator of a vertex's significance inside a specific complex network and that having a high value can benefit the vertex itself."*

> *"The common result stated by both sources is that the larger the closeness centrality of a vertex means the shorter the average distance from the vertex to any other, and thus the vertex have the better positioning to spread information to others" (Okamoto et al., 2008, p.187).*

The first 20 input closeness degrees are presented in Table 4 about this network. From the table, it is seen that "to have fun" and "news tracking" have higher values compared to the others. This means that they have better positions in the whole network. Also, "to advertise" and "curiosity" have the lowest value (0.7245) in this processing. Apart from these, the closeness degree values that are very close to each other or have the same values can be reached from the table (Table 7). While "to follow others" and "to follow friends" get the same values with 0.8554, "to socialize" is located very close to them with a value of 0.8452. If the length of any node N's shortest path with other nodes in the network is small, then node N's shortest path with other nodes in the network is short, then node N's measure of closeness centrality is high.

> *"Closeness centrality quantifies the overall distance of one node to the other nodes"* (Zhang and Luo, 2017, p.301).

As a result of this, it can be reached that the values at the beginning of the list presented in Table 7 have shorter distances than other nodes in this network and considering Zhang and Luo's implementations (2017), these nodes, "to have fun" and "news tracking" for this network, stand for convenience and ease of connections between the focused and other nodes.

Table 8. Output Closeness Degree

Rank	Vertex	Value	Id
1	10	1.00	to spend time
2	12	0.924	to communicate
3	18	0.924	news tracking
4	11	0.859	follow the agenda
5	21	0.859	to have fun
6	1	0.836	watching video
7	2	0.824	to get information
8	3	0.803	to socialize
9	26	0.792	boredom
10	27	0.772	to share
11	4	0.762	to follow friends
12	15	0.753	to talk with friends
13	14	0.753	business
14	22	0.744	to watch series
15	13	0.726	to relax
16	6	0.726	to surf
17	25	0.709	to follow others
18	24	0.701	to text
19	20	0.693	to advertise
20	17	0.685	to listen to music

Table 8 represents the 20 output closeness degrees that are the most important for this network. “To spend time” has the highest output closeness degree. It is followed by “to communicate” and “news tracking” with a value of 0.9242. Otherwise, “to listen to music” has the lowest value of output closeness degree according to table 8 in this network.

4.1.5. Betweenness Analysis

Table 9. Betweenness Degree

Rank	Vertex	Value	Id
1	18	1.00	news tracking
2	10	0.795	to spend time
3	21	0.668	to have fun
4	12	0.573	to communicate
5	11	0.476	follow the agenda
6	4	0.415	to follow friends
7	2	0.392	to get information
8	31	0.345	for facebook
9	1	0.220	watching video
10	25	0.153	to follow others
11	15	0.127	to talk with friends
12	20	0.116	to advertise
13	39	0.100	necessity
14	3	0.092	to socialize
15	27	0.087	to share
16	14	0.052	business
17	17	0.052	to listen to music
18	22	0.051	to watch series
19	6	0.045	to surf
20	13	0.044	to relax

> *"The fraction of the shortest paths which are going through a given node is count by a betweenness centrality"* (Barthélemy, 2004).

> *"If a node finds the only path for other nodes to pass through, that node undertakes a 'mediatiton' role in a network, and it is important to the network and very likely the node have a high betweenness centrality"* (Zhang and Luo, 2017, p.301).

Perez (2016) asserts that if the score indicates how many shortest paths there are between any two nodes in the network, then indicates that the target node would have a high betweenness centrality. Also, Burt (2007) described the bridge as

> *"a (strong or weak) relationship for which there is no effective indirect connection through third parties, in other words, a relationship that spans a structural hole is the definition of bridge."*

> *"Betweenness centrality gives an idea about which actors connect groups of actors"* (Liu et al., 2019, p.482).

Table 9 indicates the betweenness centrality of the 20 in order from highest to lowest nodes in this network. “News tracking” has the highest betweenness centrality with the value of 1.00, and “to spend time”, “to have fun”, and “to communicate” follow it in the ranking. This means that they have a role as a bridge between two nodes in the network.

4.1.6. Clique Analysis

Table 10. Clique Directed

Dimension	62
The lowest value	0
The highest value	64

Fox et al. (2018) claim that

> *“a clique is a subgraph of graph G where every pair of vertices has an edges.”*
>
> *“A clique is a made up of numerous overlapping closed triads, and the word “edge” here is equivalent to “maximal”, meaning that no further nodes can be added to the clique without decreasing its connectivity”* (Tsevetovat and Kouznetsov, 2011, p.79).
>
> *“The increased probability of complex contagion spreading on the network may be due to the presence of closed triads of three individuals who all know one another in the social network”* (Shi et al., 2007, p.34).

In other words, according to Siltaloppi and Vargo (2017), the triads are used to study associations between three actors that involve, at the very least, two dyadic ties among three connected actors.

> *“Cliques can also come in various of sizes since a subset of nodes in which every feasible pair of nodes is connected directly”* (Slater et al., 2014, p.387).

According to the network, Table 10 shows that the maximum number of cliques is 64. It means that there are motivations that create 64 cliques in the network of social media usage motivations, and also

"it is not possible to make any larger clique by the addition of some other vertex in this network" (Fox et al., 2020, p.450).

Table 11. Cliques in the Network of Social Media Usage Motivation

Cluster	Freq	Freq%	CumFreq	CumFreq%	Representative
0	41	661.290	41	661.290	5
3	1	16.129	42	677.419	42
5	1	16.129	43	693.548	6
6	2	32.258	45	725.806	20
7	1	16.129	46	741.935	14
8	1	16.129	47	758.065	15
10	3	48.387	50	806.452	4
17	1	16.129	51	822.581	27
19	1	16.129	52	838.710	26
24	2	32.258	54	870.968	13
34	1	16.129	55	887.097	11
42	1	16.129	56	903.226	2
45	1	16.129	57	919.355	3
51	1	16.129	58	935.484	1
55	1	16.129	59	951.613	21
59	2	32.258	61	983.871	12
64	1	16.129	62	1.000.000	10
Sum	62	100.000			

According to Table 11, it is possible to conclude that 41 of motivations do not create any clique in a totally of 62 social media usage motivations in this network. All motivations between clusters 3 to 64 create cliques, and the total number of cliques created is 21 as can be seen in Table 11.

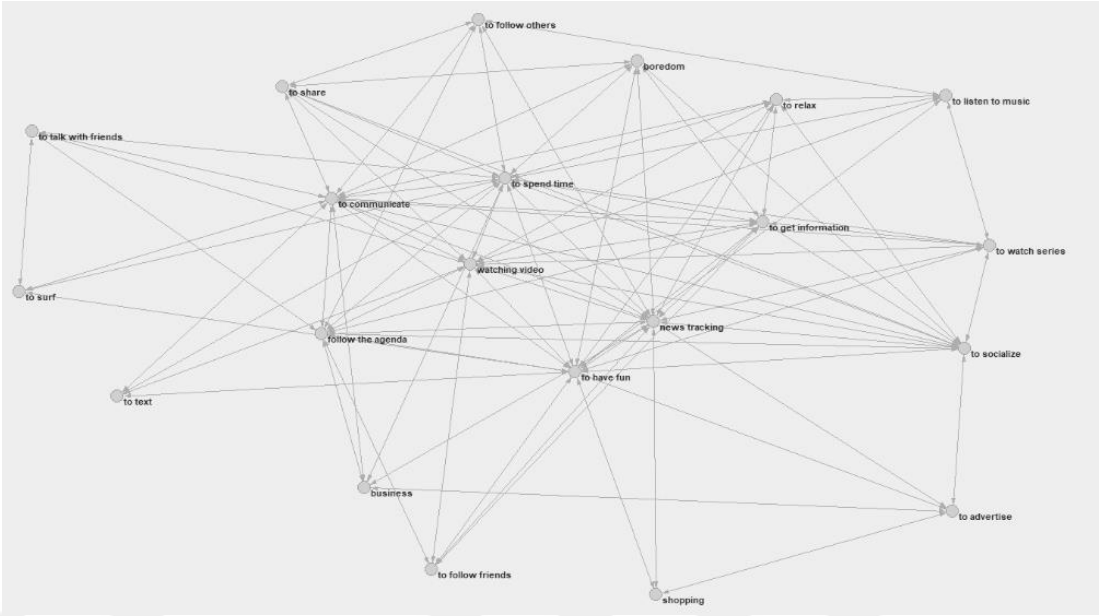

Figure 3. Directed Cliques of the Social Media Usage Motivation

The graph shown in Figure 3 indicates the relationship between the usage purposes put forward by the participants regarding their motivation to use social media and other purposes in the network. The clique analysis helps both in finding the most expressed motivation and in examining which of all these motivations is left behind. 21 of the 21 cliques are also important for this network. Among these cliques, “to spend time”, “news tracking”, “to communicate, “watching video”, “to have fun”, “follow the agenda”, “to get information”, “to follow the others”, “boredom”, and “to relax” answers are at the top.

There are no articulation points in this network.

4.1.7. Total Findings of 7 Dimensions

Table 12. Summary of Semantic Network Analysis Social Media Usage Motivations

Id	Repeats	Repeated Criterion
to have fun	7	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Clique, Valued Core
news tracking	7	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Clique, Valued Core
to communicate	7	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Clique, Valued Core
to spend time	7	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Clique, Valued Core
follow the agenda	7	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Clique, Valued Core

Table 12 (continued). Summary of Semantic Network Analysis Social Media Usage Motivations

Id	Repeats	Repeated Criterion
to get information	7	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Clique, Valued Core
watching video	7	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Clique, Valued Core
to socialize	7	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Clique, Valued Core
to follow others	7	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Clique, Valued Core
to follow friends	7	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Clique, Valued Core
to watch series	7	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Clique, Valued Core
to listen to music	7	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Clique, Valued Core
to relax	7	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Clique, Valued Core
to share	7	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Clique, Valued Core
to talk with friends	6	Input Degree, Output Degree, Output Closeness Degree, Betweenness Degree, Clique, Valued Core
boredom	6	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Clique, Valued Core
business	7	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Clique, Valued Core
shopping	4	Input Degree, Input Closeness Degree, Clique, Valued Core
to surf	6	Input Degree, Output Degree, Output Closeness Degree, Betweenness Degree, Clique, Valued Core
to text	6	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Clique, Valued Core
to advertise	7	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Clique, Valued Core

4.2. Analysis of Question 3: When you see the content from the brand on social media, does it botter you to share it with your friends (family, friends, etc.)? If yes, why?

4.2.1. Semantic Network Analysis Metrics of the Network

Table 13. Semantic Network Analysis of Users to Share the Content with Their Connections Metric

Number of nodes	28
Total number of lines	44
Number of lines that have value 1	26
Number of lines that have value more than 1	18
Density of the network	0,058
Average degree centrality	3,143

The number of nodes is 28 which creates 44 lines in this network. While 26 of them take the value of 1, the remaining 18 take a value of more than 1. The density of the network is nearly 0,06. With a value closer to 0, it is possible to say that this network is not dense, even less dense when compared to the previous network. It is described as loose.

From Table 13, its average degree of centrality is about 3,14.

> *"The degree of centrality of a node represents the total number of neighbors of the node"* (Saxena et al., 2016, p.1).

Degree centrality compares the degrees of nodes to the highest degree achievable for a network of the specified. Only a local understanding of node relationships is acquired with degree centrality; no information about the entire network is obtained (Dekker, 2008). This metric represents the strength of the relationship between interconnected connections in the network. The value here, 3,14, is giving information that the reasons for users to share the brand content with their connections that they see on social media are tied to others about 3 times on average, which does not indicate a strong and important connection.

4.2.2. Valued Core Analysis

Table 14. All Max Valued Core Values

Dimension	28
The lowest value	0
The highest value	1

The dimension value specified in Table 14 is equal to the number of nodes in this network and it is 28. Values in this network take values between 0 and 1.

Table 15. Valued Core Partititon

M slice	Num	Threshold
0	0	0.000 or less
1	11	(0.000-1.000]
2	8	(1.000-2.000]
3	3	(2.000-3.000]
4	2	(3.000-4.000]
5	2	(4.000-5.000]
6	2	(5.000-6.000]

From Table 15, 28 elements between 2 and 6 were analyzed and participated in the valued core analysis. Table 15 shows the distribution of the number of elements in this range and their threshold ranges. From the table, it is possible to say that 11 nodes take the value of 1-slice.

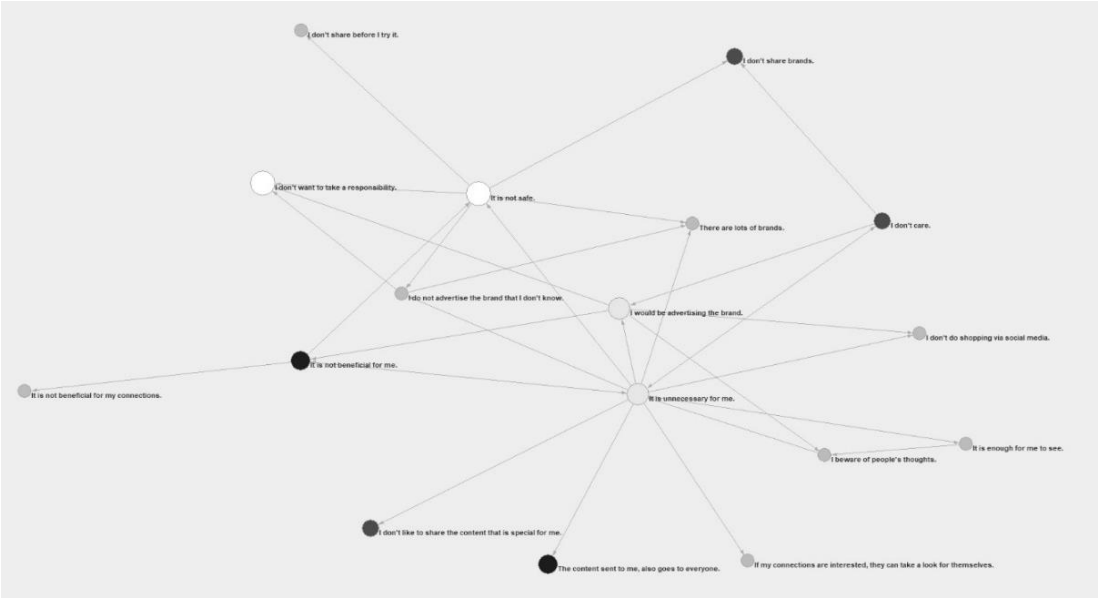

Figure 4. Valued Core of Users to Share the Content with Their Connections Metric

4.2.3. Degree Analysis

Table 16. Input Degrees

Rank	Vertex	Value	Id
1	5	10.00	I beware of people's thoughts.
2	9	10.00	It is not safe.
3	6	0.750	I would be advertising the brand.
4	20	0.750	There are lots of brands.
5	4	0.750	It is unnecessary for me.
6	17	0.750	I don't want to take a responsibility.
7	13	0.500	I do not advertise the brand that I don't know.
8	27	0.500	I don't do shopping via social media.
9	22	0.500	I don't share content that doesn't belong to me.
10	2	0.500	It is not beneficial for me.
11	10	0.500	I don't share brands.
12	18	0.250	The content sent to me, also goes to everyone.
13	11	0.250	It is better for the brand to advertise.
14	7	0.250	It is enough for me to see.
15	15	0.250	It is not a brand I need.
16	14	0.250	The brand doesn't need me.
17	23	0.250	I don't like to share the content that is special for me.
18	26	0.250	There are enough advertisements.
19	25	0.250	If my connections are interested, they can take a look for themselves.
20	21	0.250	It is not beneficial for my connections.
21	19	0.250	I don't like seeing brand contents.
22	16	0.250	I don't want to post too much.
23	24	0.250	I don't share before I try it.
24	28	0.250	My connections do not care.
25	1	0.250	I don't care.

According to Table 16, “I beware of people’s thoughts.” is the leading answer according to this question and takes the highest value as 1.000. All other values are ranked between 0 and 1, and the answers given to this are listed in the table from most to least. Looking at Table 16, it is possible to say that the answers “I do not find it logical.”, “There are too much advertisements.”, and “I don’t want to aggrieve my connections.” do not take place among the answers given by the participants to this question.

Table 17. Output Degrees

Rank	Vertex	Value	Id
1	4	10.00	It is unnecessary for me.
2	6	0.545	I would be advertising the brand.
3	1	0.454	I don't care.
4	2	0.454	It is not beneficial for me.
5	9	0.454	It is not safe.
6	5	0.273	I beware of people's thoughts.
7	13	0.182	I do not advertise the brand that I don't know.
8	7	0.091	It is enough for me to see.
9	14	0.091	The brand doesn't need me.
10	3	0.091	I do not find it logical.
11	12	0.091	There are too much advertisements.
12	11	0.091	It is better for the brand to advertise.
13	10	0.091	I don't share brands.
14	8	0.091	I dont' want to aggrieve my connections.
15	15	0.000	It is not a brand I need.
16	23	0.000	I don't like to share the content that is special for me.
17	28	0.000	My connections do not care.
18	21	0.000	It is not beneficial for my connections.
19	25	0.000	If my connections are interested, they can take a look for themselves.
20	24	0.000	I don't share before I try it.
21	27	0.000	I don't do shopping via social media.
22	26	0.000	There are enough advertisements.
23	22	0.000	I don't share content that doesn't belong to me.
24	20	0.000	There are lots of brands.
25	18	0.000	The content sent to me, also goes to everyone.
26	17	0.000	I don't want to take a responsibility.
27	19	0.000	I don't like seeing brand contents.
28	16	0.000	I don't want to post too much.

By looking at the Table 17, it can be reached that some of answers given to the question are very close to each other in order ranking as “I don’t care.”, “It is not beneficial for me.”, “It is not safe.” and many other answers seen in the Table 16 can be cited as examples of this.

4.2.4. Closeness Analysis

Table 18. Input Closeness Degrees

Rank	Vertex	Value	Id
1	20	10.00	There are lots of brands.
2	17	0.967	I don't want to take a responsibility.
3	9	0.956	It is not safe.
4	13	0.888	I do not advertise the brand that I don't know.
5	5	0.882	I beware of people's thoughts.
6	4	0.819	It is unnecessary for me.
7	10	0.777	I don't share brands.
8	27	0.755	I don't do shopping via social media.
9	24	0.731	I don't share before I try it.
10	6	0.717	I would be advertising the brand.
11	2	0.675	It is not beneficial for me.
12	26	0.652	There are enough advertisements.
13	16	0.652	I don't want to post too much.
14	19	0.644	I don't like seeing brand contents.
15	23	0.623	I don't like to share the content that is special for me.
16	22	0.623	I don't share content that doesn't belong to me.
17	18	0.623	The content sent to me, also goes to everyone.
18	25	0.623	If my connections are interested, they can take a look for themselves.
19	7	0.574	It is enough for me to see.
20	14	0.574	The brand doesn't need me.

While examining the answers to this question, as in the previous question, the first 20 input closeness degrees are given in Table 18. According to this table, “There are lots of brands.” has the highest value, “It is enough for me to see.” and “The brand doesn’t need me.” are at the bottom of the table with the lowest value compared to others. The other answers are listed among these options from high to low. It can be said that those ranked at the top are better positioned in the network.

Table 19. Output Closeness Degree

Rank	Vertex	Value	Id
1	4	10.00	It is unnecessary for me.
2	1	0.833	I don't care.
3	2	0.769	It is not beneficial for me.
4	5	0.714	I beware of people's thoughts.
5	6	0.702	I would be advertising the brand.
6	3	0.535	I do not find it logical.
7	12	0.535	There are too much advertisements.
8	7	0.513	It is enough for me to see.
9	11	0.506	It is better for the brand to advertise.
10	9	0.400	It is not safe.
11	14	0.267	The brand doesn't need me.
12	8	0.267	I dont' want to aggrieve my connections.
13	13	0.200	I do not advertise the brand that I don't know.
14	10	0.133	I don't share brands.
15	15	0.000	It is not a brand I need.
16	23	0.000	I don't like to share the content that is special for me.
17	24	0.000	I don't share before I try it.
18	25	0.000	If my connections are interested, they can take a look for themselves.
19	27	0.000	I don't do shopping via social media.
20	26	0.000	There are enough advertisements.
21	28	0.000	My connections do not care.
22	21	0.000	It is not beneficial for my connections.
23	22	0.000	I don't share content that doesn't belong to me.
24	19	0.000	I don't like seeing brand contents.
25	18	0.000	The content sent to me, also goes to everyone.
26	20	0.000	There are lots of brands.
27	17	0.000	I don't want to take a responsibility.
28	16	0.000	I don't want to post too much.

Table 19 represents the first 28 output closeness degrees that are the most important for this network. “It is unnecessary for me.” has the highest output closeness degree. It is followed by “I don’t care.” the value of 0.833. Otherwise, 6 responses at the end of the list have the lowest value of output closeness degree at 0.000.

4.2.5. Betweenness Analysis

Table 20. Betweenness Degree

Rank	Vertex	Value	Id
1	4	10.00	It is unnecessary for me.
2	5	0.744	I beware of people's thoughts.
3	6	0.369	I would be advertising the brand.
4	9	0.311	It is not safe.
5	2	0.260	It is not beneficial for me.
6	1	0.174	I don't care.
7	10	0.099	I don't share brands.
8	14	0.041	The brand doesn't need me.
9	7	0.021	It is enough for me to see.
10	11	0.016	It is better for the brand to advertise.
11	13	0.014	I do not advertise the brand that I don't know.
12	18	0.000	The content sent to me, also goes to everyone.
13	17	0.000	I don't want to take a responsibility.
14	16	0.000	I don't want to post too much.
15	15	0.000	It is not a brand I need.
16	27	0.000	I don't do shopping via social media.
17	3	0.000	I do not find it logical.
18	12	0.000	There are too much advertisements.
19	24	0.000	I don't share before I try it.
20	25	0.000	If my connections are interested, they can take a look for themselves.
21	28	0.000	My connections do not care.
22	8	0.000	I dont' want to aggrieve my connections.
23	22	0.000	I don't share content that doesn't belong to me.
24	21	0.000	It is not beneficial for my connections.
25	23	0.000	I don't like to share the content that is special for me.
26	26	0.000	There are enough advertisements.
27	19	0.000	I don't like seeing brand contents.
28	20	0.000	There are lots of brands.

Table 20 indicates the betweenness centrality of the 28 in order from highest to lowest nodes in this network. “It is unnecessary for me.” has the highest betweenness centrality with the value of 1.00, and “I beware of people’s thoughts.”, “I would be advertising the brand.”, and “It is not safe.” follow in the ranking. This means that they have a role as a bridge between two nodes in the network.

Unlike the previous network, there is no clique in this network, and there is no articulation point, too.

4.2.6. Total Findings of 5 Dimensions

Table 21. Summary of Semantic Network Analysis of Users to Share the Content with Their Connections

Id	Repeats	Repeated Criterion
I beware of people's thoughts.	6	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Valued Core
It is not safe.	6	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Valued Core
I would be advertising the brand.	6	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Valued Core
There are lots of brands.	6	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Valued Core
It is unnecessary for me.	6	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Valued Core
I don't want to take a responsibility.	6	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Valued Core
I do not advertise the brand that I don't know.	6	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Valued Core
I don't do shopping via social media.	6	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Valued Core
I don't share content that doesn't belong to me.	5	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree
It is not beneficial for me.	6	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Valued Core
I don't share brands.	6	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Valued Core
The content sent to me, also goes to everyone.	6	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Valued Core
It is better for the brand to advertise.	4	Input Degree, Output Degree, Output Closeness Degree, Betweenness Degree
It is enough for me to see.	6	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Valued Core
It is not a brand I need.	4	Input Degree, Output Degree, Output Closeness Degree, Betweenness Degree
The brand doesn't need me.	5	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree
I don't like to share the content that is special for me.	6	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Valued Core
There are enough advertisements.	5	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree
If my connections are interested, they can take a look for themselves.	6	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Valued Core
It is not beneficial for my connections.	5	Input Degree, Output Degree, Output Closeness Degree, Betweenness Degree, Valued Core
I don't like seeing brand contents.	5	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree
I don't want to post too much.	4	Input Degree, Output Degree, Output Closeness Degree, Betweenness Degree
I don't share before I try it.	6	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Valued Core
My connections do not care.	4	Input Degree, Output Degree, Output Closeness Degree, Betweenness Degree
I don't care.	5	Input Degree, Output Degree, Output Closeness Degree, Betweenness Degree, Valued Core

4.3. Analysis of Question 3: When you see the content from the brand on social media, does it botter you to share it with your friends (family, friends, etc.)? If no, why?

4.3.1. Semantic Network Analysis Metrics of the Network

Table 22. Semantic Network Analysis of Users to Not Share the Content with Their Connections Metric

Number of nodes	13
Total number of lines	20
Number of lines that have value 1	16
Number of lines that have value more than 1	4
Density of the network	0,128
Average degree centrality	3,077

The number of nodes is 13 which creates 20 lines in this network. While 16 of them take the value of 1, the remaining 4 take a value of more than 1. The density of the network is nearly 0,13. It can be said that the density of this network, which is created by social media users who not share the content with their families, friends, etc., about the brands is denser than the network created by those who share it.

4.3.2. Valued Core Analysis

Table 23. All Max Valued Core Values

Dimension	13
The lowest value	0
The highest value	1

The dimension value specified in Table 23 is equal to the number of nodes in this network and it is 13. Values in this network take values between 0 and 1.

Table 24. Valued Core Partititon

M slice	**Num**	**Threshold**
0	0	0.000 or less
1	9	(0.000-1.000]
2	2	(1.000-2.000]
3	2	(2.000-3.000]

From the Table 24, 4 elements between 2 and 3 were analyzed and participated in the valued core analysis. Table 24 shows the distribution of the number of elements in this

range and the threshold ranges of them. From the table, it is possible to say that 9 nodes take the value 1-slice.

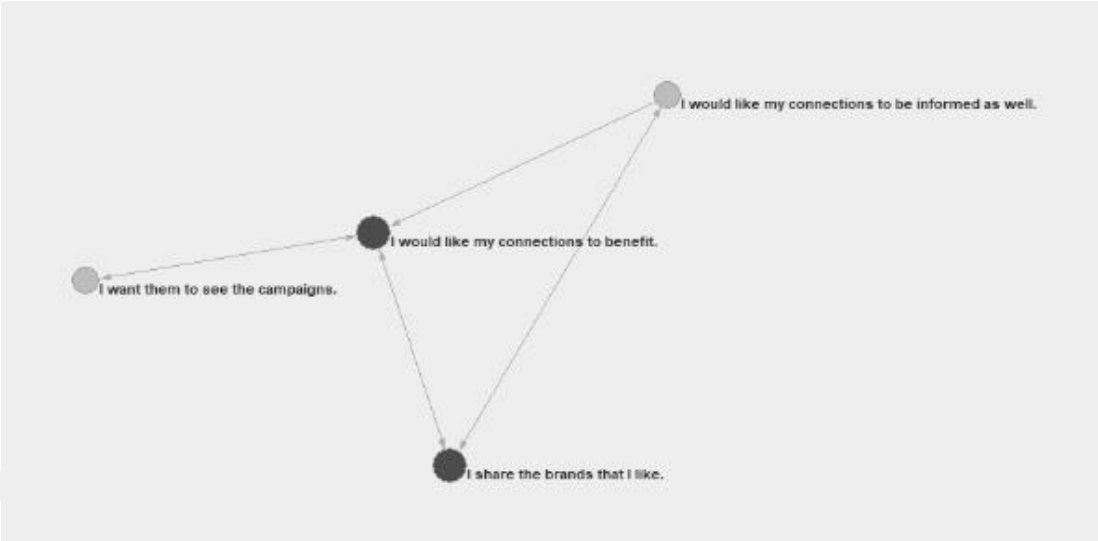

Figure 5. Valued Core of Users to Not Share the Content with Their Connections Metric

4.3.3. Degree Analysis

Table 25. Input Degrees

Rank	Vertex	Value	Id
1	10	10.00	I would like my connections to benefit.
2	5	0.800	I share the brands that I like.
3	1	0.600	I would like my connections to be informed as well.
4	4	0.600	I want them to see the campaigns.
5	3	0.200	It attracts my connections' attention.
6	7	0.200	It enables keeping in touch.
7	13	0.200	I share only with my friends.
8	11	0.200	I would share if the content is about entertainment.
9	12	0.200	I create benefits for my connections.
10	6	0.000	I would share if the content is trustworthy.
11	2	0.000	If it is informative, I will share.
12	8	0.000	It makes me happy to share with my connections.
13	9	0.000	I want them to be informed about innovations.

In Table 25, the values of 13 input degrees in total are accessed. According to it, “I would like my connections to benefit.” is the leading answer according to this question and takes the highest value as 1.000. All other values are ranked between 0 and 1, and the answers given to this are listed in the table from most to least. By looking at Table

25, it can be seen that the proportion of many answers is the same as “I would like my connections to be informed as well.” and “I want them to see the campaigns.”.

Table 26. Output Degrees

Rank	Vertex	Value	Id
1	1	10.00	I would like my connections to be informed as well.
2	7	10.00	It enables keeping in touch.
3	5	10.00	I share the brands that I like.
4	4	10.00	I want them to see the campaigns.
5	10	0.667	I would like my connections to benefit.
6	8	0.667	It makes me happy to share with my connections.
7	3	0.333	It attracts my connections' attention.
8	6	0.333	I would share if the content is trustworthy.
9	2	0.333	If it is informative, I will share.
10	9	0.333	I want them to be informed about innovations.
11	12	0.000	I create benefits for my connections.
12	13	0.000	I share only with my friends.
13	11	0.000	I would share if the content is about entertainment.

13 output degree values are given in Table 26. As can be reached from the table, many answers are ordered from the highest to lowest, taking the same values with each other.

4.3.4. Closeness Analysis

Table 27. Input Closeness Degrees

Rank	Vertex	Value	Id
1	10	10.00	I would like my connections to benefit.
2	5	0.846	I share the brands that I like.
3	4	0.786	I want them to see the campaigns.
4	1	0.733	I would like my connections to be informed as well.
5	13	0.625	I share only with my friends.
6	12	0.598	I create benefits for my connections.
7	7	0.550	It enables keeping in touch.
8	3	0.550	It attracts my connections' attention.
9	11	0.306	I would share if the content is about entertainment.
10	9	0.000	I want them to be informed about innovations.
11	6	0.000	I would share if the content is trustworthy.
12	8	0.000	It makes me happy to share with my connections.
13	2	0.000	If it is informative, I will share.

All 13 input closeness degrees can be accessed in Table 27. The answers are given in order from highest to lowest.

Table 28. Output Closeness Degree

Rank	Vertex	Value	Id
1	8	10.00	It makes me happy to share with my connections.
2	7	0.972	It enables keeping in touch.
3	1	0.897	I would like my connections to be informed as well.
4	5	0.897	I share the brands that I like.
5	10	0.897	I would like my connections to benefit.
6	4	0.897	I want them to see the campaigns.
7	6	0.714	I would share if the content is trustworthy.
8	9	0.714	I want them to be informed about innovations.
9	3	0.686	It attracts my connections' attention.
10	2	0.417	If it is informative, I will share.
11	12	0.000	I create benefits for my connections.
12	13	0.000	I share only with my friends.
13	11	0.000	I would share if the content is about entertainment.

Table 28 represents the 13 output closenes degree. According the table, it can be easily seen that “It makes me happy tos hare with my connections.” takes the first place with the highest value 1.00.

4.3.5. Betweenness Analysis

Table 29. Betweenness Degree

Rank	Vertex	Value	Id
1	4	10.000	I want them to see the campaigns.
2	10	0.927	I would like my connections to benefit.
3	5	0.829	I share the brands that I like.
4	1	0.463	I would like my connections to be informed as well.
5	7	0.293	It enables keeping in touch.
6	9	0.000	I want them to be informed about innovations.
7	8	0.000	It makes me happy to share with my connections.
8	3	0.000	It attracts my connections' attention.
9	6	0.000	I would share if the content is trustworthy.
10	12	0.000	I create benefits for my connections.
11	2	0.000	If it is informative, I will share.
12	13	0.000	I share only with my friends.
13	11	0.000	I would share if the content is about entertainment.

According to Newman (2005),

“since betweenness centrality may be used to evaluate how often control an actor has over how information is shared between actors”,

looking at Table 29 in this social network, it can be said that the answer “I want them to see the campaings.” with the highest value (1.00) acts as a bridge between other nodes.

As in the previous network, no clique or articulation points were found in this social network.

4.3.6. Total Findings of 5 Dimensions

Table 30. Summary of Semantic Network Analysis of Users to Not Share the Content with Their Connections

Id	Repeats	Repeated Criterion
I would like my connections to benefit.	6	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Valued Core
I share the brands that I like.	6	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Valued Core
I would like my connections to be informed as well.	6	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Valued Core
I want them to see the campaigns.	6	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Valued Core
It attracts my connections' attention.	5	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree
It enables keeping in touch.	5	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree
I share only with my friends.	5	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree
I would share if the content is about entertainment.	5	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree
I create benefits for my connections.	5	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree
I would share if the content is trustworthy.	5	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree
If it is informative, I will share.	5	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree
It makes me happy to share with my connections.	5	Input Degrees, Output Degrees, Input Closeness Degree, Output Closeness Degree, Betweenness Degree
I want them to be informed about innovations.	5	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree

4.4. Analysis of Question 4: Suppose you have correctly recorded your personal information (name, surname, place of residence, etc.) on social media and that this information can be seen by people you do not know. Does this botter you? If yes, why?

4.4.1. Semantic Network Analysis Metrics of the Network

Table 31. Semantic Network Analysis of Discomfort of Users Due to Their Personal Information Being Seen by People They Do Not Know Metric

Number of nodes	17
Total number of lines	38
Number of lines that have value 1	25
Number of lines that have value more than 1	13
Density of the network	0,139
Average degree centrality	4,471

The number of nodes is 17 which creates 38 lines in this network. While 25 of them take the value of 1, the remaining 13 take a value of more than 1. The density of the network is nearly 0,14 and the average degree of centrality is approximately 4,48 in this network.

4.4.2. Valued Core Analysis

Table 32. All Max Valued Core Values

Dimension	17
The lowest value	1
The highest value	8

The dimension value specified in Table 32 is equal to the number of nodes in this network and it is 17 that mentioned in Table 32 too. Values in this network take values between 1 and 8.

Table 33. Valued Core Partititon

M slice	Num	Threshold
0	0	0.000 or less
1	8	(0.000-1.000]
2	2	(1.000-2.000]
3	2	(2.000-3.000]
4	1	(3.000-4.000]
5	2	(4.000-5.000]
8	2	(7.000-8.000]

From Table 33, 17 elements between 1 and 8 were analyzed and participated in the valued core analysis. Table 30 shows the distribution of the number of elements in this range and their threshold ranges. From the table, it is possible to say that 8 nodes take the value of 1-slice.

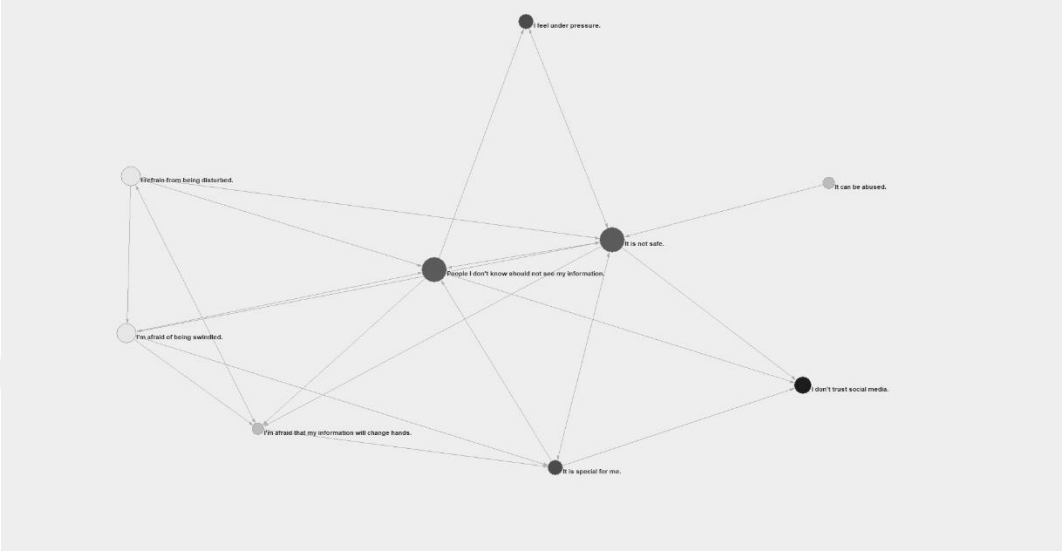

Figure 6. Valued Core of Discomfort of Users Due to Their Personal Information Being Seen by People They Do Not Know

4.4.3. Degree Analysis

Table 34. Input Degrees

Rank	Vertex	Value	Id
1	4	10.00	It is not safe.
2	9	0.625	I'm afraid of being swindled.
3	10	0.500	I'm afraid that my information will change hands.
4	8	0.500	People I don't know should not see my information.
5	14	0.375	I don't trust social media.
6	3	0.375	It is special for me.
7	7	0.375	I refrain from being disturbed.
8	2	0.250	I feel under pressure.
9	12	0.125	I don't want to be disclosed.
10	16	0.125	I'm afraid that my account will be hacked.
11	17	0.125	I'm afraid they will deceive people on my behalf.
12	13	0.125	They can force me to sell.
13	5	0.125	I'm afraid of being offended by a men because I am a women.
14	15	0.125	I don't want my privacy to be interefered.
15	1	0.000	It can be abused.
16	6	0.000	I'm afraid my information will be used elsewhere.
17	11	0.000	I am afraid that they will deceive my connections.

In Table 34, the values of 17 input degrees in total are accessed. According to it, “It’s not safe.” is the leading answer according to this question and takes the highest value as 1.000. All other values are ranked between 0 and 1, and the answers given to this are listed in the table from most to least.

Table 35. Output Degrees

Rank	Vertex	Value	Id
1	4	10.00	It is not safe.
2	7	0.857	I refrain from being disturbed.
3	9	0.857	I'm afraid of being swindled.
4	8	0.857	People I don't know should not see my information.
5	3	0.571	It is special for me.
6	5	0.286	I'm afraid of being offended by a men because I am a women.
7	10	0.286	I'm afraid that my information will change hands.
8	2	0.286	I feel under pressure.
9	6	0.143	I'm afraid my information will be used elsewhere.
10	11	0.143	I am afraid that they will deceive my connections.
11	1	0.143	It can be abused.
12	17	0.000	I'm afraid they will deceive people on my behalf.
13	14	0.000	I don't trust social media.
14	13	0.000	They can force me to sell.
15	16	0.000	I'm afraid that my account will be hacked.
16	15	0.000	I don't want my privacy to be interefered.
17	12	0.000	I don't want to be disclosed.

17 output degree values are given in Table 35. As can be reached from the table, many answers are ordered from the highest to lowest, taking the same values with each other.

4.4.4. Closeness Analysis

Table 36. Input Closeness Degrees

Rank	Vertex	Value	Id
1	4	10.00	It is not safe.
2	9	0.800	I'm afraid of being swindled.
3	10	0.750	I'm afraid that my information will change hands.
4	8	0.750	People I don't know should not see my information.
5	14	0.720	I don't trust social media.
6	3	0.706	It is special for me.
7	7	0.667	I refrain from being disturbed.
8	2	0.600	I feel under pressure.
9	16	0.554	I'm afraid that my account will be hacked.
10	17	0.554	I'm afraid they will deceive people on my behalf.
11	15	0.514	I don't want my privacy to be interefered.
12	13	0.496	They can force me to sell.
13	12	0.464	I don't want to be disclosed.
14	5	0.461	I'm afraid of being offended by a men because I am a women.
15	1	0.000	It can be abused.
16	6	0.000	I'm afraid my information will be used elsewhere.
17	11	0.000	I am afraid that they will deceive my connections.

All 17 input closeness degrees can be accessed in Table 36. The answers are given in order from highest to lowest.

Table 37. Output Closeness Degree

Rank	Vertex	Value	Id
1	4	13.894	It is not safe.
2	8	11.328	People I don't know should not see my information.
3	7	10.220	I refrain from being disturbed.
4	9	0.9208	I'm afraid of being swindled.
5	3	0.5911	It is special for me.
6	5	0.5911	I'm afraid of being offended by a men because I am a women.
7	6	0.4850	I'm afraid my information will be used elsewhere.
8	1	0.4850	It can be abused.
9	10	0.4603	I'm afraid that my information will change hands.
10	2	0.4603	I feel under pressure.
11	11	0.2915	I am afraid that they will deceive my connections.
12	-16	13.049	I'm afraid that my account will be hacked.
13	-14	13.049	I don't trust social media.
14	-17	13.049	I'm afraid they will deceive people on my behalf.
15	-15	13.049	I don't want my privacy to be interefered.
16	-12	13.049	I don't want to be disclosed.
17	-13	13.049	They can force me to sell.

Table 37 represents the 17 output closenes degree. In this table, it is possible to reach negative vertex values, unlike previous social networks.

4.4.5. Betweenness Analysis

Table 38. Betweenness Degree

Rank	Vertex	Value	Id
1	4	10.00	It is not safe.
2	9	0.602	I'm afraid of being swindled.
3	7	0.421	I refrain from being disturbed.
4	3	0.239	It is special for me.
5	8	0.205	People I don't know should not see my information.
6	2	0.175	I feel under pressure.
7	10	0.058	I'm afraid that my information will change hands.
8	11	0.000	I am afraid that they will deceive my connections.
9	5	0.000	I'm afraid of being offended by a men because I am a women.
10	17	0.000	I'm afraid they will deceive people on my behalf.
11	1	0.000	It can be abused.
12	16	0.000	I'm afraid that my account will be hacked.
13	6	0.000	I'm afraid my information will be used elsewhere.
14	13	0.000	They can force me to sell.
15	14	0.000	I don't trust social media.
16	15	0.000	I don't want my privacy to be interefered.
17	12	0.000	I don't want to be disclosed.

According to Table 38, the betweenness centrality degrees of 17 nodes in this network are listed. In this criterion, the answer “It is not safe.” takes the highest value with the value of 1,00, indicating that it has an important link in this social network.

4.4.6. Clique Analysis

Table 39. Clique Directed

Dimension	17
The lowest value	1
The highest value	8

According to the network, Table 39 shows that the maximum number of cliques is 8.

Table 40. Cliques in the Network of Discomfort of Users Due to Their Personal Information Being Seen by People They Do Not Know

Cluster	Freq	Freq%	CumFreq	CumFreq%	Representative
1	8	470.588	8	470.588	I'm afraid of being offended by a men because I am a women.
2	2	117.647	10	588.235	It can be abused.
3	2	117.647	12	705.882	I feel under pressure.
4	1	58.824	13	764.706	I don't trust social media.
5	2	117.647	15	882.353	I refrain from being disturbed.
8	2	117.647	17	1.000.000	It is not safe.
Sum	17	1.000.000			

According to Table 40, it is possible to conclude that 17 of 17 motivations between clusters 1 to 8 create cliques in this network, and the total number of cliques created is 17 as can be seen in Table 37.

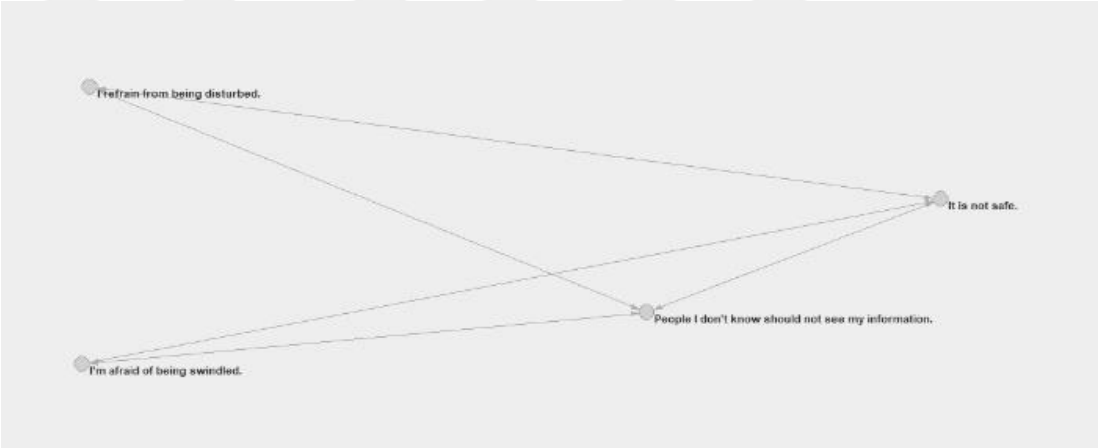

Figure 7. Directed Cliques of Discomfort of Users Due to Their Personal Information Being Seen by People They Do Not Know

The graph shown in Figure 7 indicates the relationship between the discomfort of users that their personal information can be seen by people they do not know on social media in the network. The clique analysis helps both in finding the most expressed reason about discomfort and in examining which of all these reasons is left behind. 17 of the 17 cliques are also important for this network. Among these cliques, “It is not safe.”, “I am afraid of being swindled.”, “I refrain from being disturbed.”, and “People I don’t know should not see my information.” answers are at the top.

There is no articulation points in this network.

4.4.6. Total Findings of 5 Dimensions

Table 41. Summary of Semantic Network Analysis of Discomfort of Users Due to Their Personal Information Being Seen by People They Do Not Know

Id	Repeats	Repeated Criterion
It is not safe.	7	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Clique, Valued Core
I'm afraid of being swindled.	7	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Clique, Valued Core
I'm afraid that my information will change hands.	6	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Valued Core
People I don't know should not see my information.	7	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Clique, Valued Core
I don't trust social media.	6	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Valued Core
It is special for me.	6	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Valued Core
I refrain from being disturbed.	7	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Clique, Valued Core
I feel under pressure.	6	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Valued Core
I don't want to be disclosed.	5	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree
I'm afraid that my account will be hacked.	5	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree
I'm afraid they will deceive people on my behalf.	5	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree
They can force me to sell.	5	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree
I'm afraid of being offended by a men because I am a women.	5	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree
I don't want my privacy to be interefered.	5	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree
It can be abused.	6	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Valued Core
I'm afraid my information will be used elsewhere.	5	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree
I am afraid that they will deceive my connections.	5	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree

4.5. Analysis of Question 4: Suppose you have correctly recorded your personal information (name, surname, place of residence, etc.) on social media and that this information can be seen by people you do not know. Does this botter you? If no, why?

4.5.1. Semantic Network Analysis Metrics of the Network

Table 42. Semantic Network Analysis of Not Discomfort of Users Due to Their Personal Information Being Seen by People They Do Not Know Metric

Number of nodes	14
Total number of lines	12
Number of lines that have value 1	9
Number of lines that have value more than 1	3
Density of the network	0,066
Average degree centrality	1,714

The number of nodes is 14 which creates 12 lines in this network. While 9 of them take the value of 1, the remaining 3 take a value more than 1. Density of the network is nearly 0,1 and the average degree centrality is approximately 1,71 in this network.

4.5.2. Valued Core Analysis

Table 43. All Max Valued Core Values

Dimension	14
The lowest value	0
The highest value	1

The dimension value specified in Table 43 is equal to the number of nodes in this network and it is 14 that mentioned in Table 43 too. Values in this network take values between 0 and 1.

Table 44. Valued Core Partititon

M slice	**Num**	**Threshold**
0	0	0.000 or less
1	9	(0.000-1.000]
2	5	(1.000-2.000]

From the Table 44, 14 elements between 1 and 2 were analyzed and participated in the valued core analysis. Table 44 shows the distribution of the number of elements in this

range and the threshold ranges of them. From the table, it is possible to say that 9 nodes take the value 1-slice.

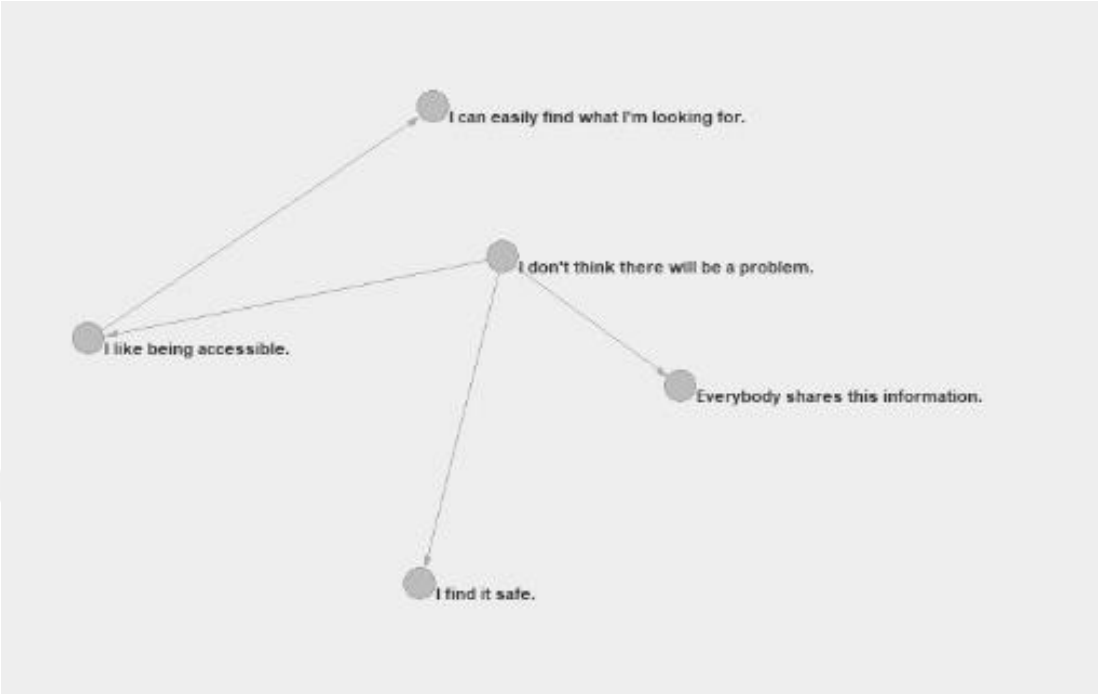

Figure 8. Valued Core of Not Discomfort of Users Due to Their Personal Information Being Seen by People They Do Not Know

4.5.3. Degree Analysis

Table 45. Input Degrees

Rank	Vertex	Value	Id
1	13	10.00	Everybody shares this information.
2	5	10.00	I like being accessible.
3	1	0.500	They can't hurt me.
4	7	0.500	I have nothing to hide.
5	12	0.500	I can easily find what I'm looking for.
6	10	0.500	I use it for business.
7	14	0.500	This is the aim of social media.
8	8	0.500	I don't share the information that I don't want to.
9	11	0.500	I won't be bothered even if a message comes.
10	9	0.500	I find it safe.
11	4	0.000	I don't think there will be a problem.
12	6	0.000	This information is already everywhere.
13	2	0.000	It is more easy to communicate.
14	3	0.000	I find it normal.

In Table 45, the values of 14 input degrees in total are accessed. According to it, “Everybody shares this information.” and “I like being accessible.” are the leading

answers according to this question and takes the highest value as 1.000. All other values are ranked between 0 and 1, and the answers given to this are listed in the table from most to least.

Table 46. Output Degrees

Rank	Vertex	Value	Id
1	4	10.00	I don't think there will be a problem.
2	5	0.600	I like being accessible.
3	3	0.200	I find it normal.
4	6	0.200	This information is already everywhere.
5	1	0.200	They can't hurt me.
6	2	0.200	It is more easy to communicate.
7	9	0.000	I find it safe.
8	8	0.000	I don't share the information that I don't want to.
9	7	0.000	I have nothing to hide.
10	13	0.000	Everybody shares this information.
11	14	0.000	This is the aim of social media.
12	11	0.000	I won't be bothered even if a message comes.
13	12	0.000	I can easily find what I'm looking for.
14	10	0.000	I use it for business.

14 output degree values are given in Table 46. As can be reached from the table, many answers are ordered from the highest to lowest, taking the same values with each other.

4.5.4. Closeness Analysis

Table 47. Input Closeness Degrees

Rank	Vertex	Value	Id
1	13	10.00	Everybody shares this information.
2	5	10.00	I like being accessible.
3	14	0.800	This is the aim of social media.
4	12	0.800	I can easily find what I'm looking for.
5	10	0.800	I use it for business.
6	1	0.667	They can't hurt me.
7	11	0.667	I won't be bothered even if a message comes.
8	8	0.667	I don't share the information that I don't want to.
9	7	0.667	I have nothing to hide.
10	9	0.667	I find it safe.
11	4	0.000	I don't think there will be a problem.
12	3	0.000	I find it normal.
13	2	0.000	It is more easy to communicate.
14	6	0.000	This information is already everywhere.

All 14 input closeness degrees can be accessed in Table 47. The answers are given in order from highest to lowest.

Table 48. Output Closeness Degrees

Rank	Vertex	Value	Id
1	4	10.00	I don't think there will be a problem.
2	5	0.611	I like being accessible.
3	3	0.436	I find it normal.
4	6	0.306	This information is already everywhere.
5	1	0.306	They can't hurt me.
6	2	0.306	It is more easy to communicate.
7	9	0.000	I find it safe.
8	8	0.000	I don't share the information that I don't want to.
9	7	0.000	I have nothing to hide.
10	13	0.000	Everybody shares this information.
11	14	0.000	This is the aim of social media.
12	11	0.000	I won't be bothered even if a message comes.
13	12	0.000	I can easily find what I'm looking for.
14	10	0.000	I use it for business.

Table 48 represents the 14 output closeness degree.

4.5.5. Betweenness Analysis

Table 49. Betweenness Degree

Rank	Vertex	Value	Id
1	5	10.00	I like being accessible.
2	1	0.167	They can't hurt me.
3	13	0.000	Everybody shares this information.
4	12	0.000	I can easily find what I'm looking for.
5	11	0.000	I won't be bothered even if a message comes.
6	10	0.000	I use it for business.
7	9	0.000	I find it safe.
8	8	0.000	I don't share the information that I don't want to.
9	7	0.000	I have nothing to hide.
10	6	0.000	This information is already everywhere.
11	2	0.000	It is more easy to communicate.
12	4	0.000	I don't think there will be a problem.
13	3	0.000	I find it normal.
14	14	0.000	This is the aim of social media.

According to Table 49, the betweenness centrality degrees of 14 nodes in this network are listed. According to Unnithan et al. (2014),

> *"high centrality scores indicate that a vertex lies on a considerable fraction of shortest path connecting pairs of vertices"*

as “I like being accessible.” answer in this social network with the hisghest centrality score as 1,00.

There are no clique or articulation points were found in this social network.

4.5.6. Total Findings of 5 Dimensions

Table 50. Summary of Semantic Network Analysis of Not Discomfort of Users Due to Their Personal Information Being Seen by People They Do Not Know

Id	Repeats	Repeated Criterion
Everybody shares this information.	6	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Valued Core
I like being accessible.	6	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Valued Core
They can't hurt me.	5	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree
I have nothing to hide.	5	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree
I can easily find what I'm looking for.	6	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Valued Core
I use it for business.	5	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree
This is the aim of social media.	5	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree
I don't share the information that I don't want to.	5	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree
I won't be bothered even if a message comes.	5	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree
I find it safe.	6	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Valued Core
I don't think there will be a problem.	6	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree, Valued Core
This information is already everywhere.	5	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree
It is more easy to communicate.	5	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree

I find it normal.	5	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Betweenness Degree

4.6. Analysis of Question 6: Complete the following sentence: When using my social media accounts, entering my personal information incorrectly (such as using a fake account) makes me feel better because……

4.6.1. Semantic Network Analysis Metrics of the Network

Table 51. Semantic Network Analysis of Social Media Users' Personal Privacy Perceptions Metric

Number of nodes	5
Total number of lines	3
Number of lines that have value 1	1
Number of lines that have value more than 1	2
Density of the network	0,15
Average degree centrality	1,2

The number of nodes is 5 which creates 3 lines in this network. While 1 of them take the value of 1, the remaining 2 take a value more than 1. Density of the network is 0,15 and the average degree centrality is 1,2 in this network.

4.6.2. Valued Core Analysis

Table 52. All Max Valued Core Values

Dimension	5
The lowest value	0
The highest value	1

The dimension value specified in Table 52 is equal to the number of nodes in this network and it is 5 that mentioned in Table 46 too. Values in this network take values between 0 and 1.

Table 53. Valued Core Partititon

M slice	Num	Threshold
0	0	0.000 or less
1	1	(0.000-1.000]
2	4	(1.000-2.000]

Accrding to the Table 53, 5 elements between 1 and 2 were analyzed and participated in the valued core analysis. Table 53 shows the distribution of the number of elements in this range and the threshold ranges of them. From the table, it is possible to say that 1 node take the value 1-slice.

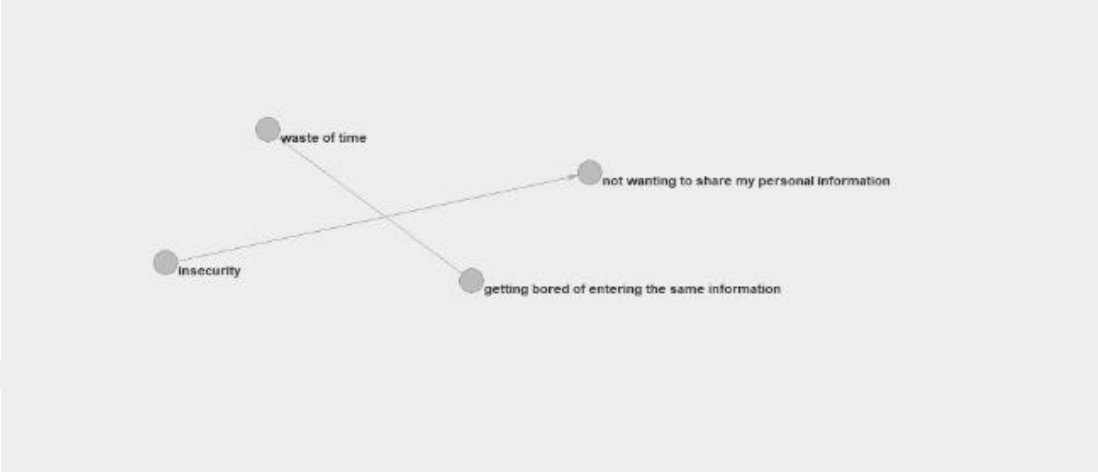

Figure 9. Valued Core of Social Media Users' Personal Privacy Perceptions

4.6.3. Degree Analysis

Table 54. Input Degrees

Rank	Vertex	Value	Id
1	3	10.00	not wanting to share my personal information
2	5	10.00	waste of time
3	4	10.00	refraining from information being used by people I don't know
4	1	0.000	insecurity
5	2	0.000	getting bored of entering the same information

In Table 54, the values of 5 input degrees in total are accessed. According to it, "not wanting tos hare my personal information" and "waste of time" are the leading answers according to this question and takes the highest value as 1.000. The remaining answers also took the value 0. As can be seen from the table, the answers of this network take the value of 0 or 1 and represent the limit and initial values of the interval.

Table 55. Output Degrees

Rank	Vertex	Value	Id
1	2	10.00	getting bored of entering the same information
2	1	0.500	insecurity
3	4	0.000	refraining from information being used by people I don't know
4	3	0.000	not wanting to share my personal information
5	5	0.000	waste of time

5 output degree values are given in Table 55.

4.6.4. Closeness Analysis

Table 56. Input Closeness Degrees

Rank	Vertex	Value	Id
1	3	10.00	not wanting to share my personal information
2	5	10.00	waste of time
3	4	10.00	refraining from information being used by people I don't know
4	1	0.000	insecurity
5	2	0.000	getting bored of entering the same information

All 5 input closeness degrees can be accessed in Table 56. The answers are given in order from highest to lowest.

Table 57. Output Closeness Degrees

Rank	Vertex	Value	Id
1	2	10.00	getting bored of entering the same information
2	1	0.667	insecurity
3	4	0.000	refraining from information being used by people I don't know
4	3	0.000	not wanting to share my personal information
5	5	0.000	waste of time

Table 57 represents the 5 output closeness degree.

4.6.5. Betweenness Analysis

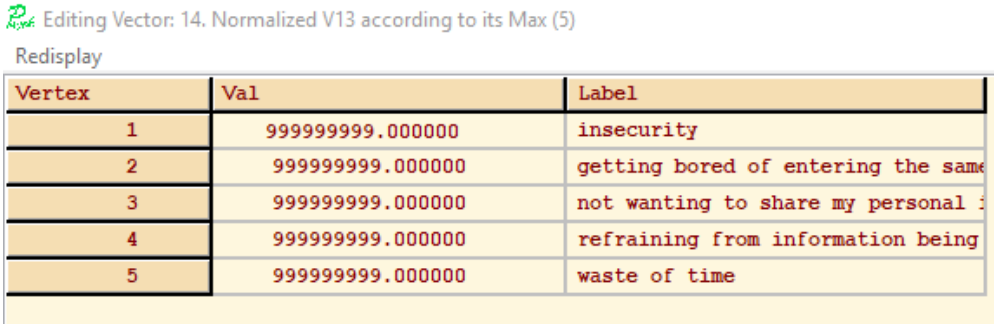

Figure 10. Betweenness Degree

Since all vector values are equal to 0, betweenness degree values has ignored in this social network.

There are no clique or articulation points were found in this social network.

4.6.6. Total Findings of 4 Dimensions

Table 58. Summary of Semantic Network Analysis of Social Media Users' Personal Privacy Perceptions

Id	Repeats	Repeated Criterion
not wanting to share my personal information	5	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Valued Core
waste of time	5	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Valued Core
refraining from information being used by people I don't know	4	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree
insecurity	5	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Valued Core
getting bored of entering the same information	5	Input Degree, Output Degree, Input Closeness Degree, Output Closeness Degree, Valued Core

4.7. Analysis of Question 7:

This question was examined and analyzed under 2 different 5-point Likert scales. In the first part, 15 questions were used to examine the purposes of users' use of social media. In the second part, 3 different items were used under the Likert scale to group the usage amounts of social media users.

4.7.1. The following questions are about why you are using SNS. Please tick up the value from 1 to 5 that best fits your feeling.

The scales of different sources were used to analyze motivations for use of social media in this part. In line with the scales used, 5 motivations, 3 items for each, were included among the 15 items included in the 5-point Likert scale directed to the participants. In their analysis, Kim et al. (2011) examined the motivations for the use of social networks under 5 headings: *Seeking Friends, Seeking Convenience, Seeking Social Support, Seeking Information, and Seeking Entertainment.* Also, Ko, Cho and Roberts (2005), examined the relationship between users' motivations to use the internet and the time users spent, they grouped the motivations under 4 headings: *Information, Convenience, Entertainment, and Social Interaction.* Otherwise, Jung et al. (2007) divided these motivations into 6 headings in which they have investigated the purpose of users to enter the homepage of a Korean social network as

Entertainment, Self-expression, Professional Advancement, Passing Time, Communication with Family and Friend, and Trend.

As a result, the basis of the Likert scale, which was directed to the participants by using all these scales and resources, was created and linked to these 5 motivations in this research: Information-Seeking (e.g. "learning things I don't know including news"), Social Interaction (e.g. "expressing my feelings to my family and friends"), Entertainment (e.g. "relax and have a good time"), Benefit/Convenience (e.g. "gifts, prizes, raffles, discounts, etc. obtaining economic incentives and benefits"), and Self-Expression (e.g. "tell others a little about myself").

4.7.1.1. Information-Seeking Motivation Analysis

Table 59. Case Processing Summary of Information-Seeking Motivation

		N	%
Cases	Valid	319	99.7
	Excluded[a]	1	0.3
	Total	320	100.0

Table 60. Reliability Statistics of Information-Seeking Motivation

Cronbach's Alpha	N of Items
0.702	3

Table 61. Item Statistics of Information-Seeking Motivation

	Mean	Std. Deviation	N
q1informationseeking	4.17	0.628	319
q2iformationseeking	4.19	0.601	319
q3informationseeking	4.15	0.524	319

Table 62. Item Total Statistics of Information-Seeking Motivation

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
q1informationseeking	8.34	0.936	0.498	0.642
q2iformationseeking	8.33	0.994	0.485	0.652
q3informationseeking	8.36	1.036	0.585	0.542

Table 63. Scale Statistics of Information-Seeking Motivation

Mean	Variance	Std. Deviation	N of Items
12.51	1.936	1.391	3

4.7.1.2. Social Interaction Motivation Analysis

Table 64. Case Processing Summary of Social Interaction Motivation

		N	%
Cases	Valid	320	100.0
	Excluded[a]	0	0.0
	Total	320	100.0

Table 65. Reliability Statistics of Social Interaction Motivation

Cronbach's Alpha	N of Items
0.769	3

Table 66. Item Statistics of Social Interaction Motivation

	Mean	Std. Deviation	N
q4socialinteraction	3.71	0.926	320
q5socialinteraction	3.98	0.747	320
q6socialinteraction	4.05	0.619	320

Table 67. Item Total Statistics of Social Interaction Motivation

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
q4socialinteraction	8.03	1.438	0.627	0.692
q5socialinteraction	7.77	1.841	0.636	0.653
q6socialinteraction	7.69	2.207	0.598	0.717

Table 68. Scale Statistics of Social Interaction Motivation

Mean	Variance	Std. Deviation	N of Items
11.75	3.688	1.920	3

4.7.1.3. Entertainment Motivation Analysis

Table 69. Case Processing Summary of Entertainment Motivation

		N	%
Cases	Valid	320	100.0
	Excluded[a]	0	0.0
	Total	320	100.0

Table 70. Reliability Statistics of Entertainment Motivation

Cronbach's Alpha	N of Items
0.789	3

Table 71. Item Statistics of Entertainment Motivation

	Mean	Std. Deviation	N
q7entertainment	4.33	0.558	320
q8entertainment	4.44	0.556	320
q9entertainment	4.27	0.516	320

Table 72. Item Total Statistics of Entertainment Motivation

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
q7entertainment	8.71	0.929	0.586	0.761
q8entertainment	8.60	0.949	0.564	0.783
q9entertainment	8.77	0.879	0.749	0.588

Table 73. Scale Statistics of Entertainment Motivation

Mean	Variance	Std. Deviation	N of Items
13.04	1.870	1.367	3

4.7.1.4. Benefit/Convenience Motivation Analysis

Table 74. Case Processing Summary of Benefit/Convenience Motivation

		N	%
Cases	Valid	320	100.0
	Excluded[a]	0	0.0
	Total	320	100.0

Table 75. Reliability Statistics of Benefit/Convenience Motivation

Cronbach's Alpha	N of Items
0.653	3

Table 76. Item Statistics of Benefit/Convenience Motivation

	Mean	Std. Deviation	N
q10benefitconvenience	2.15	0.911	320
q11benefitconvenience	1.88	0.926	320
q12benefitconvenience	1.69	0.831	320

Table 77. Item Total Statistics of Benefit/Convenience Motivation

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
q10benefitconvenience	3.57	2.202	.437	.594
q11benefitconvenience	3.84	2.116	.461	.562
q12benefitconvenience	4.03	2.275	.498	.516

Table 78. Scale Statistics of Benefit/Convenience Motivation

Mean	Variance	Std. Deviation	N of Items
5.72	4.214	2.053	3

4.7.1.5. Self-Expression Motivation Analysis

Table 79. Case Processing Summary of Self-Expression Motivation

		N	%
Cases	Valid	320	100.0
	Excluded[a]	0	.0
	Total	320	100.0

Table 80. Reliability Statistics of Self-Expression Motivation

Cronbach's Alpha	N of Items
0.905	3

Table 81. Item Statistics of Self-Expression Motivation

	Mean	Std. Deviation	N
q13selfexpression	2.53	1.182	320
q14selfexpression	2.23	1.120	320
q15selfexpression	2.44	1.218	320

Table 82. Item Total Statistics of Self-Expression Motivation

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
q13selfexpression	4.67	4.805	0.813	0.861
q14selfexpression	4.98	4.987	0.835	0.845
q15selfexpression	4.76	4.754	0.787	0.885

Table 83. Scale Statistics of Self-Expression Motivation

Mean	Variance	Std. Deviation	N of Items
7.20	10.413	3.227	3

CHAPTER 5: DISCUSSION AND CONCLUSION

The basis of this study is aimed to investigate the importance given to privacy in social media by the users who use it for different purposes. To this aim, as mentioned above, the research was carried out on a sample of 320 people. The research was conducted on participants living in İzmir, and their age distribution was made based on the Digital 2020 Hong Kong data specified in Figure 1. While looking at Figure 1 which shows the distribution of social media usage by age in Turkey, it is seen that the highest usage rate is between the ages of 25-34. It can be said that the age of social media use by gender is also at this rate. Taking this into account, approximately 35 percent of the participants of the survey applied in this research are in this age group.

Many scales were examined throughout the research. Especially in the 7th question, which was created by using a 5-point Likert scale, especially 3 scales were used. These are the scales of Kim et al. (2011), Ko et al. (2005), and Jung et al. (2007). As a result of the examination of these scales, 5 main social media usage motivation titles were reached and the analysis of this question was carried out according to these motivations. They are *information seeking, social interaction, entertainment, benefit/convenience, and self-expression.*

Based on all these, as a result of this research, it was found that the participants mainly used social media for entertainment and they are passive users. Passive use has defined by Thorisdottir et al. (2019) as surfing, scrolling, reposting links, or viewing other people's contents. While Pagani et al. (2011) explained the behavior of active use as

> *"posting, they also defined viewing as the fundamental element of passive use in the ongoing life of any virtual social network."*

When Thorisdottir et al. (2019) compared active and passive users with each other, passive ones involve the consumption of information and no interpersonal interactions (Yang et al., 2021), and the authors associated passive use of social media with decreased well-being.

For entertainment purposes, Kim et al. (2011) included uses for forgetting about work or other things, relaxation, feeling excited, and passing the time. Moreover, Ko et al.

(2005) have examined the answers of just like surfing the Internet and turning over to habit in this group that they reached in their research. In Jung et al.'s (2007) research, some of the participants perceive social media as a thing to do and find it enjoyable. As a result of this research conducted with the specified sample distribution, the participants who use social media for entertainment purposes defined themselves as *having fun, spending time, watching a video, watching series, listening to music, relaxing, boredom, and surfing*.

If the data that obtained as a result of this research is to be put into a framework, it is necessary to examine the use of internet and social media in Turkish society. According to TUIK data for 2021, while the rate of households accessing the internet via mobile broadband connection is 88.5%, the rate of regular (almost every day or at least once a week) internet usage rate of individual internet users in the 16-74 age group increased by 4% compared to previous year, and it was recorded as 80.5%. According to Poushter (2016), the rate of those who use social media among adult internet users in Turkey is 87%, making it one of the top 5 among developing countries. It is obviously seen that social media use is very common among Turkish online users, despite the fact that web access is not as prevalent as consumption of conventional media, particularly that of TV.

> *"Due to the government's strict regulation over conventional media, which is common of authoritarian competing governments, this is one of the most plausible causes of social media's popularity in Turkey"* (Andı et al., 2019, p.8).

If all these are taken into consideration, the fact that the group examined in the study mainly uses social media for entertainment purposes can be matter of debate under the political structure of Turkish society, as afraid of politics and prefer entertainment, which is more comfortable and free from anxiety, because they are afraid of political sharings and sanctions, and do not feel free about the internet environment.

When the motivation definitions of the participants in this study were compared with the definitions of motivations in the scales that benefit from, *news tracking, following the agenda, and getting information* motivations can be included in the information-seeking group; *to communicate, socialize, follow others, to follow friends, to talk with friends and to text* are the elements of social interaction motivation; and *sharing* can

be included in the self-expression group. According to these results, while most of the participants use social media for entertainment, they are followed by social interaction, information seeking, and self-expression purposes, respectively. Also, as mentioned in the literature review, it has been found that different generations use different social media tools for different purposes as well. For example, members of generatin Z, in contrast to prior ones, born and raised with digital technology widely accessible and integrated into their educational and domestic surroundings, and both offline and online social environments are a part of their social lives (Carrier et al., 2009). This shows that they use social media in more areas of their daily lives and therefore have different purposes compared to previos generations.

In a different study conducted among university students, the majority of the participants stated that they use social media for entertainment purposes, and Al-Menayes (p.48, 2015) correlated this with the duration of users' use of social media and stateted that as

> *"users spend longer periods on social media, their use for entertainment and personal utility is also increased."*

Likewise, Lin et al. (2017) stated that one of the common motivations of users, while using Facebook and Pinterest, is entertainment in the research where they compared these two platforms. In the research, it is stated that

> *"users who use Facebook to meet their entertainment needs use this platform more and have negative emotions as a result"* (Lin et al., 2017, p.621).

He argued that with the increase in the amount of time that users spend on Facebook, they compare themselves to others more and this has negative effects on people. Another previous research supporting this also argues that

> *"platforms that provide a higher entertainment value are seen as an advantage for social media users and motivate them to use the media more often"* (Chung and Austria, 2010, p.582).

As can be taken as an example from these studies, users who use social media for entertainment purposes generally spend more time on social media than others. It may

be possible to generalize on the sample used by making an association between the time spent and motivation.

And about motivation and privacy in social media, as a result of the research, it has been seen that these users, who use social media mostly for entertainment purposes, also attach importance to the issue of privacy in social media and are concerned about this issue. They define these concerns mainly with the following statements: *"Social media is not safe", "I'm afraid of being swindled", "People I don't know should not see my information on social media", and "I refrain from being disturbed".* Also, another study grouping entertainment as the benefit of using social media and privacy as the risk argues that social risk has a positive effect on SNS satisfaction, and this means that

> *"the increase in users' concerns about social risk in the use of SNS is associated with the increase in their satisfaction while use it"* (Khan et al., 2014, p.619).

According to the results obtained, although most of the users use social media for entertainment and passively in this sample, they are concerned about their privacy on social media. Regarding the respondents' responses to the survey, those who generally use social media for business, commercial or advertising purposes are less concerned about privacy. They have already stated that their information is available, that it is necessary and there will be no problem for them. Unlike these users, entertainment users, who are the majority in the research, are uncomfortable with their personal information being seen by people they do not know and do not trust on social media. They are worried about being swindled or deceived, and they do not find social media safe.

Referring to the past research, those who use social media for entertainment use these platforms to spend time, relax, distract themselves, and create an environment in which they can breathe in their everyday lives. These users use social media more passively by following content instead of sharing something. In the study carried out by Ahmad et al. (2018), it was found that as the time spent on social media increases, the probability of users feeling more depressed increases, too. In the sample studied in this study, users use social media mostly passively and for entertainment purposes. On the privacy side, more people are concerned than those who don't. About concerning all

these, for further investigation, is it possible to establish a relationship between the perceptions of privacy and the purposes of using social media, depending on the duration of use, for this sample, which uses social media passively and for entertainment? Thus, while commenting on the emotional states of the users can be made, the relationship between passive use with privacy concerns can be revealed.

5.1. Theoretical and Practical Implications

This study surveyed the selected sample, aiming to establish a link between the motivations to use social media and users' concerns about privacy in it. In the literature, it is possible to reach many studies on motivations for use and privacy in social media, but studies that relate the two together are rare. While entertainment is the most common motivation result in this survey, these users' concerns about privacy are also high. The semantic network analysis was used to reveal the perceptions of the users about their usage purposes and their thoughts on the accessibility of their personal information on social media were analyzed separately. This study contributes to the literature by comparing the concerns about the privacy of users who use social media with different motivations and will be an advantage for future studies with semantic network analysis.

This study can be an example of the design of applications for newly established social media and the protection of personal information in their content. In applications designed to meet the different motivations of users, it can be predicted that if the privacy perceptions of these users can be presumable, the time spent in the applications will increase and a safer environment will be offered to the users.

5.2. Limitations and Future Research

Although the results obtained from this study are satisfactory, some points should be mentioned to shed light on future studies. The sample in which the study was carried out consists of users living in İzmir. Since İzmir is one of the most socially and economically developed cities in Turkey, the results represent only a certain segment. To reach more comprehensive results, it would be more representative to conduct a study among users from all over Turkey.

In addition, the covid-19 pandemic emerged at the beginning of the study. Since the survey was conducted online with a limited number of people, it was more difficult to reach users and took a long time. The duration of the study was negatively affected. In addition, due to the pandemic, users' social media habits have changed, and they have started to use social media more and for different purposes. Because of the pandemic that affected the whole world, the moods of the users were also negatively affected, which was reflected in their usage habits.

During the research, users were asked about how much time they spend on social media on average, but this data was not used as a constraint due to time restrictions. In the literature review conducted, it was found that previous studies were linked to the duration of use and motivations and that this also affects the usage behavior of the users. In the future, this research can also improve the relationship between motivation and privacy perceptions depending on the time users spend on social media.

REFERENCES

Abokhodair, N., and Vieweg, S. (2016). Privacy & social media in the context of the Arab Gulf. In *Proceedings of the 2016 ACM conference on designing interactive systems*, pp. 672-683.

Acharya, A.S., Prakash, A., Saxena, P. and Nigam, A., (2013). *Sampling: Why and how of it.* Indian Journal of Medical Specialties, *4*(2), pp. 330-333.

Acquisti, A., John, L. K., and Loewenstein, G. (2013). *What is privacy worth?* The Journal of Legal Studies, 42(2), pp: 249-274 [Online]. Available at: https://www.journals.uchicago.edu/doi/abs/10.1086/671754 (Accessed: 26 November 2015).

Ahmad, N., Hussain, S., and Munir, N. (2018). *Social networking and depression among university students.* Pakistan Journal of Medical Research, 57(2), pp. 77-82.

Akhtar, N. (2014). Social network analysis tools. In *2014 fourth international conference on communication systems and network technologies* (pp. 388-392). IEEE. Bhopal, Indıa. 7-9 April 2014.

Al-Menayes, J. J. (2015). *Motivations for using social media: An exploratory factor analysis*. International Journal of Psychological Studies, 7(1), pp. 43-50.

Altman, J., and Bayer, S. (1975). *Postnatal development of the hippocampal dentate gyrus under normal and experimental conditions,* in The Hippocampus, Boston, MA; Springer, pp. 95-122.

Andı, S., Aytaç, S. E., and Çarkoğlu, A. (2020). *Internet and social media use and political knowledge: Evidence from Turkey.* Mediterranean Politics, 25(5), pp. 579-599.

Antoci, A., Bonelli, L., Paglieri, F., Reggiani, T., and Sabatini, F. (2019). *Civility and trust in social media.* Journal of Economic Behavior & Organization, 160, pp. 83-99 [Online]. Available at: https://www.sciencedirect.com/science/article/pii/S0167268119300563?casa_token=u9GlidGAfbsAAAAA:G_Ma1O4kVeB3Ncb2EWP8DR8iS15sMD_Lf0g5WwCfXHnQJJRNSgV1MfSRupPXrcu9j5bKv2FTR5w5 (Accessed: 4 March 2019).

Arora, T., Sharma, M., and Khatri, S. K. (2019). Detection of cyber crime on social media using random forest algorithm. In *2019 2nd International Conference on Power Energy, Environment and Intelligent Control (PEEIC)* , pp. 47-51. IEEE.

Azar, S. L., Machado, J. C., Vacas-de-Carvalho, L., and Mendes, A. (2016). *Motivations to interact with brands on Facebook–Towards a typology of consumer–brand interactions.* Journal of Brand Management, 23(2), pp. 153-178.

Baek, K., Holton, A., Harp, D. and Yaschur, C., (2011). *The links that bind: Uncovering novel motivations for linking on Facebook.* Computers in human behavior, 27(6), pp. 2243-2248.

Ballam, D. and Fullwood, C., (2010). *Fluidity of personal boundaries in online social media: implications for netiquette.* Contemporary ergonomics and human factors, pp. 391-399.

Bazarova, N. N., and Choi, Y. H. (2014). *Self-Disclosure in Social Media: Extending the Functional Approach to Disclosure Motivations and Characteristics on Social Network Sites.* Journal of Communication, 64(4), pp. 635–657 [Online]. Available at: https://academic.oup.com/joc/article-abstract/64/4/635/4086033? login=false (Accessed: 19 June 2014).

Bloch, E. L., Goodstein, L. D., Jourard, S. M., and Jaffe, P. E. (1971). *Comment on" Influence of an interviewer's disclosure on the self-disclosing behavior of interviewees.".* Journal of Counseling Psychology, 18(6), pp. 595-597.

Bonds-Raacke, J. and Raacke, J., (2010). *MySpace and Facebook: Identifying dimensions of uses and gratifications for friend networking sites.* Individual differences research, 8(1), pp. 169-174.

Borges-Tiago, M.T., Tiago, F. and Cosme, C., (2019). *Exploring users' motivations to participate in viral communication on social media.* Journal of Business Research, 101, pp. 574-582.

Brodka, Piotr; Skibicki, Krzysztof; Kazienko, Przemyslaw; Musial, Katarzyna. A degree centrality in multi-layered social network. *IEEE 2011 International Conference on Computational Aspects of Social Networks (CASoN).* Salamanca, Spain. 19-21 October 2011.

Bulut, Z.A. and Doğan, O., (2017). *The ABCD typology: Profile and motivations of Turkish social network sites users.* Computers in human behavior, 67, pp.73-83.

Burke, B. R., and Şen, A. F. (2018). *Social media choices and uses: comparing Turkish and American young-adults' social media activism.* Palgrave Communications, 4(1), pp. 1-10.

Burt, R. S. (2007). *Brokerage and closure: An introduction to social capital*. OUP Oxford.

Campisi, J., Folan, D., Diehl, G., Kable, T. and Rademeyer, C., (2015). *Social media users have different experiences, motivations, and quality of life.* Psychiatry Research, 228(3), pp. 774-780.

Capocci, A.; Servedio, V. D. P.; Colaiori, F.; Buriol, L. S.; Donato, D.; Leonardi, S.; Caldarelli, G. (2006). *Preferential attachment in the growth of social networks: The internet encyclopedia Wikipedia.* Physical Review E*,* 74(3), pp. 036116-1 – 136116-6.

Chang, Chen-Wei; Heo, Jun (2014). *Visiting theories that predict college students' self-disclosure on Facebook.* Computers in Human Behavior, 30, pp. 79–86.

Chen, G. M. (2015). *Why do women bloggers use social media? Recreation and information motivations outweigh engagement motivations.* New Media & Society, 17(1), pp. 24-40.

Chen, K.J. and Cheung, H.L., (2019). *Unlocking the power of ephemeral content: The roles of motivations, gratification, need for closure, and engagement.* Computers in Human Behavior, 97, pp. 67-74.

Chen, Z. and Chan, M., (2017). *Motivations for social media use and impact on political participation in China: A cognitive and communication mediation approach.* Cyberpsychology, Behavior, and Social Networking, 20(2), pp. 83-90.

Chen, Z. T., and Cheung, M. (2018). *Privacy perception and protection on Chinese social media: A case study of WeChat.* Ethics and ınformation Technology, 20(4), pp. 279-289.

Chi, H. H. (2011). *Interactive digital advertising vs. virtual brand community: Exploratory study of user motivation and social media marketing responses in Taiwan.* Journal of ınteractive Advertising, 12(1), pp. 44-61.

Chung, C., and Austria, K. (2010). *Social Media Gratification and Attitude toward Social Media Marketing Messages: A Study of the Effect of Social Media Marketing Messages on Online Shopping Value.* Proceedings of the Northeast Business & Economics Association, pp. 581-586.

Chung, W. (2016). *Social media analytics: Security and privacy issues.* Journal of Information Privacy and Security, 12(3), pp. 105-106.

Cinelli, Matteo; Quattrociocchi, Walter; Galeazzi, Alessandro; Valensise, Carlo Michele; Brugnoli, Emanuele; Schmidt, Ana Lucia; Zola, Paola; Zollo, Fabiana; Scala, Antonio (2020). *The COVID-19 social media infodemic.* Scientific Reports, 10(1), pp. 1-10. [Online]. Available at: https://www.nature.com/articles/s41598-020-73510-5. (Accessed: 6 October 2020).

Collins, J. C., and Porras, J. I. (1996). *Building your company's vision.* Harvard business review, 74(5), p. 65.

Correa, T., Hinsley, A. W., and de Zúñiga, H. G. (2010). *'Who interacts on the Web?: The intersection of users' personality and social media use'.* Computers in Human Behavior, 26(2), pp. 247–253.

Crescenzi, P., D'angelo, G., Severini, L., and Velaj, Y. (2016). *Greedily improving our own closeness centrality in a network.* ACM Transactions on Knowledge Discovery from Data (TKDD), 11(1), pp. 1-32.

Croes, E., and Bartels, J. (2021). *Young adults' motivations for following social influencers and their relationship to identification and buying behavior.* Computers in Human Behavior, 124, pp. 106910-1 – 106910-10.

Çiçek, M., and Eren-Erdogmus, I. (2013). *Social media marketing: Exploring the user typology in Turkey.* International Journal of Technology Marketing, 8(3), pp. 254-271.

Dahnil, M. I., Marzuki, K. M., Langgat, J., and Fabeil, N. F. (2014). *Factors influencing SMEs adoption of social media marketing.* Procedia-social and Behavioral Sciences, 148, pp. 119-126.

David, J. P., and Suls, J. (1999). *Coping efforts in daily life: role of big five traits and problem appraisals,* Journal of Personality, 67(2), pp. 265-294.

De Nooy, W. (2010). *Social network analysis.* Historical Developments and Theoretical Approaches in Sociology, 1, pp. 377-401.

Deibert, R., Palfrey, J., Rohozinski, R., and Zittrain, J. (2010). *Access controlled: The shaping of power, rights, and rule in cyberspace*. Cambridge: The MIT Press, p: 634.

Dekker, A. H. (2008). *Centrality in social networks: Theoretical and simulation approaches.* Proceedings of SimTecT 2008, pp. 12-15.

Demircioglu, M.A. and Chen, C.A., (2019). *Public employees' use of social media: Its impact on need satisfaction and intrinsic work motivation.* Government Information Quarterly, 36(1), pp. 51-60.

Demirhan, K. (2014). *Social media effects on the Gezi Park movement in Turkey: Politics under hashtags,* in Social Media in Politics, Springer, Cham: pp. 281-314.

Dincelli, E., and Goel, S. (2015). *Research design for study of cultural and societal influence on online privacy behavior,* in IFIP, 811, p: 1113.

Dinev, T., McConnell, A. R., and Smith, H. J. (2015). *Research Commentary—Informing Privacy Research Through Information Systems, Psychology, and Behavioral Economics: Thinking Outside the "APCO" Box.* Information Systems Research, 26(4), pp. 639–655 [Online]. Available at: https://pubsonline.informs.org/doi/abs/10.1287/isre.2015.0600 (Accessed: 20 November 2015).

Doerfel, M.L., (1998). *What constitutes semantic network analysis? A comparison of research and methodologies.* Connections, 21(2), pp.16-26.

Doherty, S., and Nelson, R. (2010). *Using projective techniques to tap into consumers' feelings, perceptions and attitudes... getting an honest opinion.* International journal of consumer studies, *34*(4), pp. 400-404.

Enginkaya, E., and Yılmaz, H. (2014). *What drives consumers to interact with brands through social media? A motivation scale development study.* Procedia-Social and Behavioral Sciences, 148, pp. 219-226.

Ergün, E., and Usluel, Y. K. (2016). *An analysis of density and degree-centrality according to the social networking structure formed in an online learning environment.* Journal of Educational Technology & Society, 19(4), pp. 34-46.

Fan, X., Jiang, X., Deng, N., Dong, X., and Lin, Y. (2020). *Does role conflict influence discontinuous usage intentions? Privacy concerns, social media fatigue and self-esteem.* Information Technology & People. 34(3), pp. 1152-1174.

Fietkiewicz, K. J., Lins, E., Baran, K. S., and Stock, W. G. (2016). Inter-generational comparison of social media use: Investigating the online behavior of different generational cohorts. In *2016 49th Hawaii International Conference on System Sciences (HICSS)*, pp. 3829-3838. IEEE.

Fox, J., Roughgarden, T., Seshadhri, C., Wei, F., and Wein, N. (2020). *Finding cliques in social networks: A new distribution-free model.* SIAM Journal on Computing, 49(2), pp. 448-464.

Gefen, Karahanna, and Straub. (2003). *Trust and TAM in Online Shopping: An Integrated Model.* MIS Quarterly, 27(1), pp. 51-90 [Online]. Available at: https://www.jstor.org/stable/30036519?origin=JSTOR-pdf&seq=1 (Accessed: 16 July 2012).

Gençer, M., (2017). *Sosyal ağ analizi yöntemlerine bir bakış.* Yildiz Social Science Review, 3(2), pp.19-34.

Ghaisani, A.P., Handayani, P.W. and Munajat, Q., (2017). *Users' motivation in sharing information on social media.* Procedia Computer Science, 124, pp.530-535.

Gou, F., and Wu, J. (2022). *Triad link prediction method based on the evolutionary analysis with IoT in opportunistic social networks.* Computer Communications, 181, pp. 143-155.

Goyanes, M., and De-Marcos, L. (2020). *Academic influence and invisible colleges through editorial board interlocking in communication sciences: a social network analysis of leading journals.* Scientometrics, 123(2), pp. 791-811.

Guba, E. G. (1981). *Criteria for assessing the trustworthiness of naturalistic inquiries.* Ectj, 29(2), pp. 75-91.

Gupta, M., Abdelsalam, M., Khorsandroo, S., and Mittal, S. (2020). *Security and privacy in smart farming: Challenges and opportunities.* IEEE Access, *8*, pp. 34564-34584 [Online]. Available at: https://ieeexplore.ieee.org/abstract/document/9003290 (Accessed: 27 February 2020).

Hallikainen, P. (2015). *Why people use social media platforms: Exploring the motivations and consequences of use,* in From Information to Smart Society, Springer, Cham, pp. 9-17.

Hansen, Derek L. (2011). *Analyzing Social Media Networks with NodeXL.* Social Network Analysis, pp. 31–50.

Hansen, J. M., and Levin, M. A. (2016). *The effect of apathetic motivation on employees' intentions to use social media for businesses.* Journal of Business Research, 69(12), pp. 6058-6066.

Hitlin, P., and Rainie, L. (2019). *Facebook algorithms and personal data.* Pew Research Center, 16. [Online]. Available at: https://www.academia.edu/39128831/Facebook_Algorithms_and_Personal_Data?from=cover_page (Accessed: 16 January 2019).

Hoofnagle, C., King, J., Li, S., and Turrow, J. (2010). *How different are young adults from older adults when it comes to information privacy attitudes and policies?* University of Pennsylvania, Scholarly Commons [Online]. Available at:

https://ssrn.com/abstract=1589864 or http://dx.doi.org/10.2139/ssrn.1589864 (Accessed: 14 April 2010).

Hunter, G. L., and Taylor, S. A. (2019). *The relationship between preference for privacy and social media usage.* Journal of Consumer Marketing, 37(1), pp. 43-54.

Im, E.O. and Chee, W., (2011). *Quota sampling in internet research: Practical issues.* CIN: Computers, Informatics, Nursing, 29(7), pp. 381-385.

Jacobson, W. and Howle Tufts, S. (2013). *To post or not to post: Employee rights and social media.* Review of Public Personnel Administration, 33, pp. 84–107.

Jeong, Yongick; Coyle, Erin (2014). *What Are You Worrying About on Facebook and Twitter? An Empirical Investigation of Young Social Network Site Users' Privacy Perceptions and Behaviors.* Journal of Interactive Advertising, 14(2), pp. 51–59.

Jia, Q., and Tang, W. K. (2012). *Consensus of nonlinear agents in directed network with switching topology and communication delay.* IEEE Transactions on Circuits and Systems I: Regular Papers, 59(12), pp. 3015-3023.

Jiang, Z. (Jack), Heng, C. S., and Choi, B. C. F. (2013). *Research Note—Privacy Concerns and Privacy-Protective Behavior in Synchronous Online Social Interactions.* Information Systems Research, 24(3), pp. 579–595 [Online]. Available at: https://pubsonline.informs.org/doi/abs/10.1287/isre.1120.0441 (Accessed: 28 May 2013).

Jordaan, Y., and Van Heerden, G. (2017). *Online privacy-related predictors of Facebook usage intensity.* Computers in Human Behavior, 70, pp. 90-96.

Jung, Taejin; Youn, Hyunsook; Mcclung, Steven (2007). *Motivations and Self-Presentation Strategies on Korean-Based "Cyworld" Weblog Format Personal Homepages.* CyberPsychology & Behavior, 10(1), pp. 24–31.

Kadry, S., and Al-Taie, M. Z. (2014). An introduction with an extensive implementation to a large-scale online network using Pajek, in Social network analysis. Bentham Science Publishers.

Kalloniatis, Christos; Travieso-Gonzalez, Carlos (2020). *Social Media, Ethics and the Privacy Paradox,* in Security and Privacy From a Legal, Ethical, and Technical Perspective. London: Intechopen, pp. 49-62.

Karahanna, E., Xu, S.X. and Zhang, N., (2015). *Psychological ownership motivation and use of social media.* Journal of Marketing Theory and Practice, 23(2), pp.185-207.

Kelley, P.G., Cranor, L.F. and Sadeh, N., (2013), April. Privacy as part of the app decision-making process. In *Proceedings of the SIGCHI conference on human factors in computing systems*, pp. 3393-3402.

Kelly, L., Kerr, G., and Drennan, J. (2017). *Privacy concerns on social networking sites: a longitudinal study.* Journal of Marketing Management, 33(17-18), pp. 1465-1489.

Khan, G. F., Swar, B., and Lee, S. K. (2014). *Social media risks and benefits: A public sector perspective.* Social science computer review, 32(5), pp. 606-627.

Kim, D. J., Ferrin, D. L., and Rao, H. R. (2008). *A trust-based consumer decision-making model in electronic commerce: The role of trust, perceived risk, and their antecedents.* Decision Support Systems, 44(2), pp. 544–564 [Online]. Available at: https://www.sciencedirect.com/science/article/pii/S0167923607001005?casa_token=8PL8w5kUt1wAAAAA:YUjXguYQ4SFPoGOOlkLbUlyHJCyIh9TN2B6LiqA8qzn_ki_zpPgeNKaonqbX4FR43cKZsC10DYWG (Accessed: 12 July 2007).

Kim, E., and Drumwright, M. (2016). *Engaging consumers and building relationships in social media: How social relatedness influences intrinsic vs. extrinsic consumer motivation.* Computers in Human Behavior, 63, pp. 970-979.

Kim, H. S. (2016). *What drives you to check in on Facebook? Motivations, privacy concerns, and mobile phone involvement for location-based information sharing.* Computers in Human Behavior, 54, pp. 397-406.

Kim, K. S., Sin, S. C. J., and He, Y. (2013). *Information seeking through social media: impact of user characteristics on social media use.* Proceedings of the American Society for Information Science and Technology, 50(1), pp. 1-4.

Kim, Y., Sohn, D., and Choi, S. M. (2011). *Cultural difference in motivations for using social network sites: A comparative study of American and Korean college students.* Computers in Human Behavior, 27(1), pp. 365–372.

Ko, H., Cho, C.H. and Roberts, M.S., (2005). *Internet uses and gratifications: A structural equation model of interactive advertising.* Journal of advertising, 34(2), pp.57-70.

Koseoglu, O., and Koker, N. E. (2015). *Consumer privacy in new media: a study of university students in Turkey.* Mediterranean Journal of Social Sciences, 6(2), pp. 588-588.

Krishen, A. S., Berezan, O., Agarwal, S., and Kachroo, P. (2016). *The generation of virtual needs: Recipes for satisfaction in social media networking.* Journal of Business Research, 69(11), pp. 5248-5254.

Król, K., and Zdonek, D. (2020). *Social media use and its impact on intrinsic motivation in Generation Z: a case study from Poland.* Global Knowledge, Memory and Communication. 7(4/5), pp. 442-458.

Külcü, Ö., and Henkoğlu, T. (2014). *Privacy in social networks: An analysis of Facebook.* International Journal of Information Management, 34(6), pp. 761-769.

Lai, C.H., (2019). *Motivations, usage, and perceived social networks within and beyond social media.* Journal of Computer-Mediated Communication, 24(3), pp. 126-145.

Lamm, A.J. and Lamm, K.W., (2019). *Using non-probability sampling methods in agricultural and extension education research.* Journal of International Agricultural and Extension Education, 26(1), pp. 52-59.

Lau, J., Zimmerman, B. and Schaub, F., (2018). *Alexa, are you listening? Privacy perceptions, concerns and privacy-seeking behaviors with smart speakers.* Proceedings of the ACM on Human-Computer Interaction, 2(CSCW), pp.1-31.

Lee, J. Y., Bachrach, D. G., and Lewis, K. (2014). *Social network ties, transactive memory, and performance in groups.* Organization science, 25(3), pp. 951-967.

Lee, Y., (2020). *Motivations of employees' communicative behaviors on social media: Individual, interpersonal, and organizational factors.* Internet Research, 30(3), pp. 971-994.

Leino-Kilpi, H., Välimäki, M., Dassen, T., Gasull, M., Lemonidou, C., Scott, A., and Arndt, M. (2001). *Privacy: a review of the literature* , International journal of nursing studies, 38(6), pp. 663-671.

Li, N., Najafian Razavi, M., and Gillet, D. *Trust-aware privacy control for social media. Proceedings of the 2011 Annual Conference Extended Abstracts on Human Factors in Computing Systems - CHI EA '11.* Vancouver, Canada. 7-12 May 2011.

Li, Y., Rho, E. H. R., and Kobsa, A. (2022). *Cultural differences in the effects of contextual factors and privacy concerns on users' privacy decision on social networking sites.* Behaviour & Information Technology, 41(3), pp. 655-677.

Li, Z., Sun, L., Geng, Y., Dong, H., Ren, J., Liu, Z., Tian, X., Yabar, H., and Higano, Y. (2017). *Examining industrial structure changes and corresponding carbon emission reduction effect by combining input-output analysis and social network analysis: A comparison study of China and Japan.* Journal of Cleaner Production, 162, pp. 61-70.

Lin, H. F. (2006). *Understanding behavioral intention to participate in virtual communities.* CyberPsychology & Behavior, 9(5), pp. 540-547.

Lin, J.S., Lee, Y.I., Jin, Y. and Gilbreath, B., (2017). *Personality traits, motivations, and emotional consequences of social media usage.* Cyberpsychology, Behavior, and Social Networking, 20(10), pp. 615-623.

Lin, S. W., and Liu, Y. C. (2012). *The effects of motivations, trust, and privacy concern in social networking.* Service Business, 6(4), pp. 411-424 [Online]. Available at: https://link.springer.com/article/10.1007/s11628-012-0158-6 (Accessed: 19 July 2012).

Lin, X., Sarker, S., and Featherman, M. (2019). *Users' psychological perceptions of information sharing in the context of social media: A comprehensive model.* International Journal of Electronic Commerce, 23(4), pp. 453-491.

Liu, S., Chai, H., Liu, Z., Pinkwart, N., Han, X., and Hu, T. (2019). *Effects of Proactive Personality and Social Centrality on Learning Performance in SPOCs.* In CSEDU, 2, pp. 481-487.

Luo, M., and Hancock, J. T. (2019). *Self-disclosure and social media: motivations, mechanisms and psychological well-being.* Current Opinion in Psychology, 31, pp. 110-115 [Online]. Available at: https://www.sciencedirect.com/science/article/pii/S2352250X19301423?casa_token=IPOmVlmM7CUAAAAA:PF7kpaK2G_EFcoF_0S5w13P7HDJHjWqfCuvGkiZI0ySOAqgEF4HfE88fF0PgjqUj52Q4-2Hf7zxW (Accessed: 3 September 2019).

Lupton, Deborah (2018). *How do data come to matter? Living and becoming with personal data.* Big Data & Society, 5(2) [Online]. Available at: https://journals.sagepub.com/doi/full/10.1177/2053951718786314 (Accessed: 5 July 2018).

M. Barthélemy (2004). *Betweenness centrality in large complex networks.* The European physical journal B, 38(2), pp. 163–168.

MacKay, R. S., Johnson, S., and Sansom, B. (2020). *How directed is a directed network?* Royal Society open science, 7(9), pp. 201138-1 – 201138-24.

Makkonen, P., Lampropoulos, G., and Siakas, K. (2019). Security and privacy issues and concerns about the use of social networking services. In *E-Learn: World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education*, pp. 457-466. Association for the Advancement of Computing in Education (AACE).

Manca, S. and Ranieri, M., (2017). *Networked scholarship and motivations for social media use in scholarly communication.* International review of research in open and distributed learning, 18(2), pp. 123-138.

Marin, Lavinia (2020). *Three contextual dimensions of information on social media: lessons learned from the COVID-19 infodemic.* Ethics and Information Technology [Online]. Available at: https://link.springer.com/article/10.1007/s10676-020-09550-2 (Accessed: 26 August 2020).

Martin, K. (2015). *Understanding Privacy Online: Development of a Social Contract Approach to Privacy.* Journal of Business Ethics, 137(3), pp. 551–569 [Online]. Available at: https://link.springer.com/article/10.1007/s10551-015-2565-9 (Accessed: 19 February 2015).

McDonald, P., and Thompson, P. (2015). *Social Media(tion) and the Reshaping of Public/Private Boundaries in Employment Relations.* International Journal of Management Reviews, 18(1), pp. 69–84 [Online]. Available at: https://onlinelibrary.wiley.com/doi/full/10.1111/ijmr.12061?casa_token=34tZD9jk2tYAAAAA%3Ar75GZ-BfQrlDWtTmloW6P1voAC0ZA0OzxyG-VqFaTxQvVVOzdjjA97o78AhJGj1jhGD8qs4zL2w-OoL3NA (Accessed: 6 March 2015).

Mohamed, N., and Ahmad, I. H. (2012). *Information privacy concerns, antecedents and privacy measure use in social networking sites: Evidence from Malaysia.* Computers in Human Behavior, 28(6), pp. 2366-2375.

Mooney, R. (2018). *The Impact of Social Media and Social Media Influencers on Millennials Motivation Towards Gym usage*. Unpublished Doctoral Thesis. National College of Ireland.

Moorosi, N., and Marivate, V. (2015). Privacy in mining crime data from social media: A south african perspective. In *2015 Second International Conference on Information Security and Cyber Forensics (InfoSec)*, pp. 171-175. IEEE.

Mrvar, A., and Batagelj, V. (2016). *Analysis and visualization of large networks with program package Pajek.* Complex Adaptive Systems Modeling, 4(1), pp. 1-8.

Müller, K., and Schwarz, C. (2021). *Fanning the flames of hate: Social media and hate crime.* Journal of the European Economic Association, 19(4), pp. 2131-2167.

Nakada, M., and Tamura, T. (2005). *Japanese conceptions of privacy: An intercultural perspective.* Ethics and Information Technology, 7(1), pp. 27-36.

Nelson, D. W., Moore, M. M., and Swanson, K. K. (2019). *Fashion and social networking: a motivations framework.* Journal of Fashion Marketing and Management: An International Journal, 23(4), pp. 608-627.

Newman, M. E. (2005). *A measure of betweenness centrality based on random walks.* Social networks, 27(1), pp. 39-54.

Nicholas, J., Onie, S. and Larsen, M.E., (2020). *Ethics and privacy in social media research for mental health.* Current Psychiatry Reports, 22(12), pp. 1-7.

Norberg, P. A., Horne, D. R., and Horne, D. A. (2007). *The privacy paradox: Personal information disclosure intentions versus behaviors.* Journal of consumer affairs, 41(1), pp. 100-126.

O'Brien, D., and Torres, A. M. (2012). *Social networking and online privacy: Facebook users' perceptions.* Irish Journal of Management, 31(2), pp. 63-136.

Oh, S. and Syn, S.Y., (2015). *Motivations for sharing information and social support in social media: A comparative analysis of F acebook, T witter, D elicious, Y ou T ube, and F lickr.* Journal of the Association for Information Science and Technology, 66(10), pp. 2045-2060.

Okamoto, K., Chen, W., and Li, X. Y. (2008). *Ranking of closeness centrality for large-scale social network,* in International Workshop on Frontiers in Algorithmics, Berlin, Heidelberg: Springer. pp. 186-195.

Oksa, R., Saari, T., Kaakinen, M., and Oksanen, A. (2021). *The motivations for and well-being implications of social media use at work among millennials and members of former generations.* International Journal of Environmental Research and Public Health, 18(2), pp. 803-825.

Oliveira, M., and Gama, J. (2012). *An overview of social network analysis.* Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery, 2(2), pp. 99-115.

Ozok, A. Ant; Zaphiris, Panayiotis (2009). *"Why People Use Social Networking Sites",* Online Communities and Social Computing in Computer Science lecture notes, 5621(10), pp. 143–152, Oslo.

Özgüven, N., and Mucan, B. (2013). *The relationship between personality traits and social media use.* Social Behavior and Personality: An International Journal, 41(3), pp. 517-528 [Online]. Available at: https://www.ingentaconnect.com/content/sbp/sbp/2013/00000041/00000003/art00017 (Accessed: 1 April 2013).

Pagani, M., Hofacker, C. F., and Goldsmith, R. E. (2011). *The influence of personality on active and passive use of social networking sites.* Psychology & Marketing, 28(5), pp. 441-456.

Pangrazio, L. and Selwyn, N., (2019). *'Personal data literacies': A critical literacies approach to enhancing understandings of personal digital data.* New Media & Society, 21(2), pp. 419-437.

Papadopoulou, P. (2007). *Applying virtual reality for trustbuilding e-commerce environments.* Virtual Reality, 11, pp. 107–127.

Park, N., Kee, K.F. and Valenzuela, S., (2009). *Being immersed in social networking environment: Facebook groups, uses and gratifications, and social outcomes.* Cyberpsychology & behavior, 12(6), pp. 729-733.

Park, S., Park, M., Kim, H., Kim, H., Yoon, W., Yoon, T. B., and Kim, K. P. A closeness centrality analysis algorithm for workflow-supported social networks. In *2013 15th International Conference on Advanced Communications Technology (ICACT)* pp. 158-161. PyeongChang. 27-30 January 2013.

Perez, C., and Germon, R. (2016). *Graph creation and analysis for linking actors: Application to social data,* in Automating Open Source Intelligence, Syngress, pp. 103-129.

Pirnay-Dummer, P., Ifenthaler, D., and Seel, N. M. (2012). *Designing model-based learning environments to support mental models for learning,* in Theoretical Foundations of Learning Environments, 2nd edition. Routledge. pp. 66-94.

Poushter, J. (2016). *Smartphone ownership and internet usage continues to climb in emerging economies.* Pew Research Center, 22(1), pp. 1-44.

Psychoula, I., Singh, D., Chen, L., Chen, F., Holzinger, A. and Ning, H., (2018), October. Users' privacy concerns in IoT based applications. In *2018 IEEE SmartWorld, Ubiquitous Intelligence & Computing, Advanced & Trusted Computing, Scalable Computing & Communications, Cloud & Big Data Computing, Internet of People and Smart City Innovation (SmartWorld/SCALCOM/UIC/ATC/ CBDCom/IOP/SCI)*. pp. 1887-1894. IEEE.

Quinn, K., and Epstein, D. *#MyPrivacy: how users think about social media privacy* in *Proceedings of the 9th International Conference on Social Media and Society* pp. 360-364. Copenhagen, Denmark. 18-20 July 2018.

Radin, T. J. (2001). *The privacy paradox: E-commerce and personal information on the Internet.* Business and Professional Ethics Journal, 20(3/4), pp. 145-170.

Raghavan Unnithan, S. K., Kannan, B., and Jathavedan, M. (2014). *Betweenness centrality in some classes of graphs.* International Journal of Combinatorics, 2014, pp. 1-12.

Redmiles, E. M., Bodford, J., and Blackwell, L. (2019). "I just want to feel safe": A Diary Study of Safety Perceptions on Social Media. In *Proceedings of the International AAAI Conference on Web and Social Media*, Vol(13), pp. 405-416.

Reynolds, B., Venkatanathan, J., Gonçalves, J., and Kostakos, V. (2011). Sharing ephemeral information in online social networks: privacy perceptions and behaviours. In *IFIP Conference on Human-Computer Interaction*, pp. 204-215. Springer, Berlin, Heidelberg.

Ridings, C. M., and Gefen, D. (2004). *Virtual community attraction: Why people hang out online.* Journal of Computer-mediated communication, 10(1), JCMC10110.

Roberts, C. (2010). *Correlations among variables in message and messenger credibility scales.* American behavioral scientist, 54(1), pp. 43-56.

Rodgers, R. F., Mclean, S. A., Gordon, C. S., Slater, A., Marques, M. D., Jarman, H. K., and Paxton, S. J. (2021). *Development and validation of the motivations for social media use scale (MSMU) among adolescents.* Adolescent Research Review, 6(4), pp. 425-435.

Saxena, A., Malik, V., and Iyengar, S. R. S. Estimating the degree centrality ranking. In *2016 8th International Conference on Communication Systems and Networks (COMSNETS)* IEEE. Bangalore, India. 5-10 January 2016.

Schivinski, B., Christodoulides, G. and Dabrowski, D., (2015). A scale to measure consumer's engagement with social media brand-related content. In: *ICORIA 2015: 14th International Conference on Research in Advertising,* Birkbeck, University of London. London, 3-4 July 2015.

Schwartz, B. (1968). *The Social Psychology of Privacy.* American Journal of Sociology, 73(6), pp. 741–752.

Seidman, G., (2013). *Self-presentation and belonging on Facebook: How personality influences social media use and motivations.* Personality and individual differences, 54(3), pp. 402-407.

Shao, W., Ross, M., and Grace, D. (2015). *Developing a motivation-based segmentation typology of Facebook users.* Marketing Intelligence & Planning. 33(7), pp. 1071-1086.

Sheldon, P., Herzfeldt, E., and Rauschnabel, P. A. (2020). *Culture and social media: the relationship between cultural values and hashtagging styles.* Behaviour & Information Technology, 39(7), pp. 758-770.

Shi, X., Adamic, L. A., and Strauss, M. J. (2007). *Networks of strong ties.* Physica A: Statistical Mechanics and its Applications, 378(1), pp. 33-47.

Shih, H. P., Lai, K. H., and Cheng, T. C. E. (2013). *Informational and relational influences on electronic word of mouth: An empirical study of an online consumer discussion forum.* International Journal of Electronic Commerce, 17, pp. 137–166.

Shin, D. H. (2010). *The effects of trust, security and privacy in social networking: A security-based approach to understand the pattern of adoption.* Interacting with Computers, 22, pp. 428–438.

Siltaloppi, J., and Vargo, S. L. (2017). *Triads: A review and analytical framework.* Marketing Theory, 17(4), pp. 395-414.

Slater, N., Itzchack, R., and Louzoun, Y. (2014). *Mid size cliques are more common in real world networks than triangles.* Network Science, 2(3), pp. 387-402.

Sloan, L. and Quan-Haase, A. eds., (2017). *The SAGE handbook of social media research methods*. 2nd edition. Sage.

Smith, M., Szongott, C., Henne, B., and von Voigt, G. *Big data privacy issues in public social media. 2012 6th IEEE International Conference on Digital Ecosystems and Technologies (DEST).* Campione d'Italia, Italy. 18-20 June 2012.

Soffer, T., and Cohen, A. (2014). *Privacy perception of adolescents in a digital world.* Bulletin of Science, Technology & Society, 34(5-6), pp. 145-158.

Spiekermann, S., Acquisti, A., Böhme, R. and Hui, K.L., (2015). *The challenges of personal data markets and privacy.* Electronic markets, 25(2), pp. 161-167.

Spiliotopoulos, T. and Oakley, I., (2013), April. Understanding motivations for facebook use: Usage metrics, network structure, and privacy. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. pp. 3287-3296.

Spotify (2022). Find Playlists [Online]. Available at: https://support.spotify.com/us/article/find-playlists

Srinivas, Amedapu; Velusamy, R. Leela. *Identification of influential nodes from social networks based on Enhanced Degree Centrality Measure. IEEE 2015 International Advance Computing Conference (IACC).* Banglore, India. 12-13 June 2015.

Stanfield, D. (2019). *A survey of social workers in Aotearoa New Zealand about their professional use of social media.* Aotearoa New Zealand Social Work, 31(4), pp. 35-47 [Online]. Available at: https://search.informit.org/doi/abs/10.3316/informit.915126821754902 (Accessed: 1 January 2020).

Stavros, C., Meng, M.D., Westberg, K. and Farrelly, F., (2014). *Understanding fan motivation for interacting on social media.* Sport management review, 17(4), pp.455-469.

Steijn, W. M., and Vedder, A. (2015). *Privacy under construction: A developmental perspective on privacy perception.* Science, Technology, & Human Values, 40(4), pp. 615-637.

Such, J. M., and Criado, N. (2018). *Multiparty privacy in social media.* Communications of the ACM, 61(8), pp. 74–81 [Online]. Available at: https://dl.acm.org/doi/abs/10.1145/3208039?casa_token=rnXWN7ZbcVoAAAAA:U7hBHRRTLNhfd5nAT6MeaWfsie4npsHa0h5A4z4lr-cC2F4lZNyIiiu6Ip8YJKSLY5RoZDCwr-fx-UQ (Accessed: 23 July 2018).

Sumner, C., Byers, A., and Shearing, M. (2011). *Determining personality traits & privacy concerns from facebook activity.* Black Hat Briefings, 11(7), pp. 197-221.

Swani, K., Milne, G. R., Brown, B. P., Assaf, A. G., and Donthu, N. (2017). *What messages to post? Evaluating the popularity of social media communications in business versus consumer markets.* Industrial Marketing Management, 62, pp. 77-87.

Taddicken, M. (2014). *The 'privacy paradox' in the social web: The impact of privacy concerns, individual characteristics, and the perceived social relevance on different forms of self-disclosure*. Journal of Computer-Mediated Communication, 19(2), pp. 248-273.

Tan, X., Qin, L., Kim, Y., and Hsu, J. (2012). *Impact of privacy concern in social networking web sites.* Internet Research. 22(2), pp. 211-233.

Tang, J., and Liu, H. (2015). *Trust in Social Media,* Synthesis Lectures on Information Security, Privacy, and Trust*,* 10(1), pp. 1–129.

Thorisdottir, I. E., Sigurvinsdottir, R., Asgeirsdottir, B. B., Allegrante, J. P., and Sigfusdottir, I. D. (2019). *Active and passive social media use and symptoms of anxiety and depressed mood among Icelandic adolescents.* Cyberpsychology, Behavior, and Social Networking, 22(8), pp. 535-542.

Tierney, M., Spiro, I., Bregler, C., and Subramanian, L. (2013). Cryptagram: Photo privacy for online social media. In *Proceedings of the first ACM conference on Online social networks*, pp. 75-88.

Trepte, S. (2020). *The social media privacy model: Privacy and communication in the light of social media affordances.* Communication Theory, 31(4), pp. 549-570 [Online]. Available at: https://www.researchgate.net/profile/Sabine-Trepte/publication/341231711_The_Social_Media_Privacy_Model_Privacy_and_Communication_in_the_Light_of_Social_Media_Affordances/links/605e1264458515e83472de48/The-Social-Media-Privacy-Model-Privacy-and-Communication-in-the-Light-of-Social-Media-Affordances.pdf (Accessed: 7 May 2020).

Trepte, S., and Reinecke, L. (2011). *The social web as a shelter for privacy and authentic living,* Privacy online, Berlin, Heidelberg: Springer, pp. 61-73.

Tsay-Vogel, M., Shanahan, J., and Signorielli, N. (2018). *Social media cultivating perceptions of privacy: A 5-year analysis of privacy attitudes and self-disclosure behaviors among Facebook users.* New media & society, 20(1), pp. 141-161.

Tsvetovat, M., and Kouznetsov, A. (2011). *Social Network Analysis for Startups: Finding connections on the social web*. O'Reilly Media, Inc.

TUIK (2021) [Online]. Available at: https://data.tuik.gov.tr/Bulten/Index?p=Hanehalki-Bilisim-Teknolojileri-(BT)-Kullanim-Arastirmasi-2021-37437

Tulane University (2020). *Key social privacy issues for 2020 [Blog]*. Available at https://sopa.tulane.edu/blog/key-social-media-privacy-issues-2020

Turcotte, J., York, C., Irving, J., Scholl, R. M., and Pingree, R. J. (2015). *News Recommendations from Social Media Opinion Leaders: Effects on Media Trust and Information Seeking.* Journal of Computer-Mediated Communication, 20(5), pp. 520–535 [Online]. Available at: https://academic.oup.com/jcmc/article/ 20/5/520/4067592 ?login=false (Accessed: 1 June 2015).

Ur, Blase; Wang, Yang (2013). *Proceedings of the 22nd International Conference on World Wide Web - WWW '13 Companion - A cross-cultural framework for protecting user privacy in online social media,* pp. 755–762. Rio de Janeiro, Brazil. 13-17 May 2013.

Valente, T. W., Coronges, K., Lakon, C., and Costenbader, E. (2008). *How correlated are network centrality measures?* Connections (Toronto, Ont.), 28(1), pp. 16-26.

Van der Velden, M., and El Emam, K. (2013). *"Not all my friends need to know": a qualitative study of teenage patients, privacy, and social media.* Journal of the American Medical Informatics Association, 20(1), pp. 16–24 [Online]. Available at: https://academic.oup.com/jamia/article/20/1/16/2909199?login=false (Accessed: 1 January 2013).

Van Schaik, P., Jansen, J., Onibokun, J., Camp, J., and Kusev, P. (2018). *Security and privacy in online social networking: Risk perceptions and precautionary behaviour.* Computers in Human Behavior, 78, pp. 283-297.

Verduyn, P., Ybarra, O., Résibois, M., Jonides, J. and Kross, E., (2017). *Do social network sites enhance or undermine subjective well-being? A critical review.* Social Issues and Policy Review, 11(1), pp. 274-302.

Walsh, R.M., Forest, A.L. and Orehek, E., (2020). *Self-disclosure on social media: the role of perceived network responsiveness.* Computers in Human Behavior, 104, pp.106162-1 – 1-6162-47.

Waters, S. and Ackerman, J., (2011). *Exploring privacy management on Facebook: Motivations and perceived consequences of voluntary disclosure.* Journal of Computer-Mediated Communication, 17(1), pp. 101-115.

Whiting, Anita; Williams, David (2013). *Why people use social media: a uses and gratifications approach.* Qualitative Market Research: An International Journal, 16(4), pp. 362–369 [Online]. Available at: https://www.emerald.com/insight/content/doi/10.1108/qmr-06-2013-0041/full/html?casa_token=a8NAVykNcFUAAAAA:QCzwzbtvxmlhCXzIL0gduhQjHDqyHs9T0pWjMAiBuVMQcbpO70WaB1DR7RTu7FMasq4URWh7AJWl_NUphq214Q4qxmuyV-jS8JRMObHhSDJrvFcM3cEGRg (Accessed: 30 August 2013).

Xu, K., Guo, Y., Guo, L., Fang, Y., and Li, X. (2017). *My Privacy My Decision: Control of Photo Sharing on Online Social Networks.* IEEE Transactions on Dependable and Secure Computing, 14(2), pp. 199–210 [Online]. Available at: https://ieeexplore.ieee.org/abstract/document/7120947?casa_token=f-x0rmjrZ70AAAAA:rH0kZ_vjxn2EcrYZ-ijlPXs6LkpqazU4v87EaOCj6SBF36LGKNzr7CamPZc37OsWByJ7rNQt0T5r (Accessed: 1 April 2017).

Xu, L., Bao, T., Zhu, L., and Zhang, Y. (2019). *Trust-Based Privacy-Preserving Photo Sharing in Online Social Networks.* IEEE Transactions on Multimedia, 21(3), pp. 591–602 [Online]. Available at: https://ieeexplore.ieee.org/abstract/document/8579104?casa_token=_KHOfnaAtYwAAAAA:PEhrPruwd675YAUV0YJalbwCdv62ZTEwJi4V-gGx8rN9RTpWpCvvufRa3xXTp12Csf-h2ceLt9Y_ (Accessed: March 2019).

Yang, S., Huang, L., Zhang, Y., Zhang, P., and Zhao, Y. C. (2021). *Unraveling the links between active and passive social media usage and seniors' loneliness: a field study in aging care communities.* Internet Research, 31(6), pp. 2167-2189.

Yao-Huai, L. (2005). *Privacy and data privacy issues in contemporary China.* Ethics and Information Technology, 7(1), pp. 7-15.

Yu, Q., Shao, H., and Duan, Z. (2011). *Research groups of oncology co-authorship network in China.* Scientometrics, 89(2), pp. 553-567.

Zafer, A. B. (2012). *A comparison of social networks: native and immigrant women of Inegöl.* Uludağ Üniversitesi Fen-Edebiyat Fakültesi Sosyal Bilimler Dergisi, 13(22), pp. 85-102.

Zagidullin, M., Aziz, N., and Kozhakhmet, S. (2021). *Government policies and attitudes to social media use among users in Turkey: The role of awareness of policies, political involvement, online trust, and party identification.* Technology in Society, pp. 101708-1 – 101708-28

Zhang, J., and Luo, Y. (2017). Degree centrality, betweenness centrality, and closeness centrality in social network. In *2017 2nd international conference on modelling, simulation and applied mathematics (MSAM2017)* , Atlantis Press, pp. 300-303.

Zhao, Chen; Jiang, Gonglue (2011). *Proceedings of the 2011 annual conference on Human factors in computing systems - CHI '11 - Cultural differences on visual self-presentation through social networking site profile images. ,* pp. 1129–. Vancouver, Canada. 7-12 May 2011.

Zhuravskaya, E., Petrova, M., and Enikolopov, R. (2020). *Political effects of the internet and social media.* Annual Review of Economics, 12, pp. 415-438.

Zuniga, H. G.; Diehl, T.; Huber, B.; Liu, J. (2017). *Personality Traits and Social Media Use in 20 Countries: How Personality Relates to Frequency of Social Media Use, Social Media News Use, and Social Media Use for Social Interaction?* Cyberpsychology, Behavior, and Social Networking, *20*(9), pp. 540-552 [Online]. Available at: https://www.liebertpub.com/doi/abs/10.1089/cyber.2017.0295 (Accessed: 1 September 2017)