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Information Needs of Korean Immigrants in the United States: Selection and Use of Social Media

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**INFORMATION NEEDS OF KOREAN IMMIGRANTS IN THE UNITED STATES:
SELECTION AND USE OF SOCIAL MEDIA**

by
Tae Hee Lee

A Dissertation Submitted in
Partial Fulfillment of the
Requirements for the Degree of

Doctor of Philosophy
in Information Studies

at
The University of Wisconsin-Milwaukee
August 2023

ABSTRACT

INFORMATION NEEDS OF KOREAN IMMIGRANTS IN THE UNITED STATES: SELECTION AND USE OF SOCIAL MEDIA

by

Tae Hee Lee

The University of Wisconsin-Milwaukee, 2023
Under the Supervision of Professor Iris Xie, PhD

This mixed-method study investigates the information needs of Korean immigrants on social media and their selection and use of social media for finding information in the United States. The study was designed to answer six research questions: 1) What are the top types of information needs on social media that Korean immigrants fulfill during their everyday lives in the United States?; 2) What types of social media do Korean immigrants most frequently use during their everyday lives in the United States for different types of information needs?; 3) Are there any relationships between the types of social media Korean immigrants select and demographic factors, Information Communication Technology (ICT) experience level, cultural factors, and information needs?; 4) What factors influence the selection of types of social media among Korean immigrants?; 5) How do Korean immigrants use social media for finding information during their everyday lives in the United States?; 6) What factors influence Korean immigrants' social media use for information seeking in their everyday lives in the United States?

Data collection involved questionnaires, diaries, and interviews with 111 Korean immigrant participants completing questionnaires and 16 selected for diaries and interviews. Quantitative

and qualitative methods, including descriptive statistic, Chi-square test of independence, and open coding, were used for analysis.

In particular, descriptive analysis was utilized to identify education as the top information need on social media in RQ1. In RQ2, it was observed that Social Network Services (SNS) were most commonly used, while YouTube was popular for education, monitoring, and health information. The researcher investigated the relationship between social media types, demographic factors, ICT experience level, cultural factors, and information needs in RQ3 and revealed that there was a relationship between them by Chi-square test. In RQ4, the researcher identified factors influencing social media selection, such as social network influence, cultural preference, information needs, information quantity, and information format, using open coding. In RQ5, it was found that Korean immigrants primarily employed searching a keyword within a social media or clicking or subscribing to feeds/notifications to gather information. In RQ6, factors affecting social media use, such as algorithms, features, relevance of search results, and speed of information delivery, were identified.

The study uncovered information needs among Korean immigrants and shed light on their predominant needs on social media. Moreover, the study presented a theoretical model for Korean immigrants' selection and use of social media platforms. It offered practical recommendations to cater to the information needs of Korean immigrants, such as algorithm optimization, improved search functionality, and language support. The study's limitations were acknowledged, and recommendations for future research were provided.

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Chapter 1. Introduction

1.1. Background

Since World War II, many people have visited or moved to another country for work or study (Britannica, 2022). In the United States, especially, immigration from other countries is increasing, and the immigrants' nationalities and ethnicities vary (Elligsen, 2013). Through the early 19th century, most immigrants to the United States were from Europe, but immigrants have come from Asia, Africa, and Latin America since the mid-19th century (Jensen et al., 2015). According to the U.S. Census report of 2010, for example, the Asian population was 17.3 million; it continued to increase and reached 19.9 million in 2020 (U.S. Census Bureau, 2020). Moreover, this trend will continue, and the Asian population in the United States is expected to reach 10% of the general population in 2060, up from 6% in 2020 (Camarota & Zeigler, 2019). Living in a foreign country can be difficult, and the adaptation process is filled with uncertainty. In particular, finding correct information is one of the hardest things. As immigrants, people encounter new environments (Jeong, 2004; Sin & Kim, 2013; Shoham & Strauss, 2008). In a new, uncertain environment, satisfying information needs is a critical element of successful adaptation and can decrease uncertainty and vagueness (Shoham & Strauss, 2008; Showail et al., 2013). However, the immigrant's previous experience and knowledge may not work very well. For example, foreign workers could face a very different situation and suffer serious information gaps compared to when they were in their home country. Even if they are experts in their field and know how to find information and resources, their information-seeking strategies and processes may be invalid in a foreign country due to different information environments, culture shock, and a lack of language proficiency (Hamid et al., 2016; Showail et al., 2013). Moreover,

immigrants may have different kinds of information needs and information experiences in their information seeking in everyday life due to their demographic difference and immigration status (Lee, 2017). This means that different demographic backgrounds affect the results of information searching and consequently lead to different outcomes. Feliciano (2005) highlighted that immigrants' different levels of education led to different outcomes in education and personal socioeconomic status among immigrants and their children. Lee (2017) confirmed that immigrants' entry visas, such as student visas or refugee visas, positively affected their finding information about children's pathways to college completion.

However, developments in information communication technologies (ICTs), such as the Internet, provide more convenient tools for meeting the information needs of immigrants than were available in the past (Fogt & Sandvik, 2008; Haight et al., 2014; Suh & Hsieh, 2019). The development of ICTs has increased immigrants' chances of getting information in their everyday lives and also allowed them to expand their boundaries of finding information from a local level to a global level (Mehra & Papajohn, 2007). In this situation, the processes of solving information needs and adapting to life in new countries have changed. These processes seem to be easier than they were in the past, and many researchers have studied immigrants' information needs (Ellingsen, 2013; Fisher et al., 2004a; Jeong, 2004; Kim Cho, 2012; Kim & Yoon, 2012; Sin & Kim, 2013; Yi, 2007). In particular, social media has been used to deliver different types of information, such as sensational or political information, and also share information among friends or groups (Osatuyi, 2013). Social media is defined as "a means of communication through the Internet that enables social interaction" (Xie & Stevenson, 2014, p. 502). Through social media, such as Facebook and Twitter, people can create or share information, ideas,

interests, or feelings about something (Obar & Wildman, 2015). There are different types of social media including blogs, microblogs, Really Simple Syndication (RSS) feeds, wikis, and social networking services (Xie & Stevenson, 2013). The term social media includes socializing platforms, interacting with companies and brands, job seeking and professional networking, and business platforms (Aichner et al., 2021). Immigrants' use of social media has affected their lives in their new country and their adaptation process (Dayani, 2017). In particular, social media may help meet the information needs of international students (Sin & Kim, 2013) or assist in the bonding of an immigrant ethnic group (Phua & Jin, 2011) and help them build new relationships in the host country (Dayani, 2017; Forbush & Foucault-Welles, 2016; Li & Tsai, 2015).

Korean immigrants use ICTs including social media, and they may be the fastest-growing group of social media users in the United States. They are one of the fastest-growing populations in the United States and also among the top ICTs users (*Korea Herald*, 2020; Suh and Hsieh, 2019). Since 2009, immigrants from Asia made up 28% of all immigrants to the United States, and the country has had more Asian immigrants than Hispanic immigrants in that time (Budiman, 2020). It is projected that Asian immigrants will become the largest immigrant group in the United States by 2055 and that they will make up 38% of all immigrants; Hispanics are projected to make up 31% of all immigrants. Among Asian immigrants, Korean immigrants are one of the fastest-growing ethnic groups and are now the sixth-largest Asian immigrant group in the United States (Budiman, 2020). To live successfully in the United States, Korean immigrants often try to get information from Korean immigrant communities, especially churches (Jeong, 2004). However, this phenomenon is changing because of the development of ICTs such as social media. Korean immigrants may not rely on physical communities or face-to-face interactions

anymore; rather, they may find information on the Internet or social media. The reason is that South Korea is a world leader in Internet penetration and has one of the world's fastest average Internet connection speed environments (Haight et al., 2014; Suh and Hsieh, 2019). As a result, South Koreans are familiar with ICTs; 91.9% of them access the Internet daily, and 95.4% had a smartphone in 2020 (Statista, 2022a; 2022b). Moreover, South Koreans had the third-highest rate of active social media users in the world (*Korea Herald*, 2020). Therefore, Korean immigrants have been considered advanced information technology users (Haight et al., 2014; Suh and Hsieh, 2019). Some studies have investigated how Korean immigrants used social media, but the topic has not been previously studied in depth because these immigrants were not in digital poverty as refugees. Most studies have focused on how women or students among Korean immigrants acquire health information (Han et al., 2020; Kim Cho, 2012; Park et al., 2014).

Despite this previous research, there remain some less widely known reasons that Korean immigrants use social media, and cultural and social background factors that affect their information needs and associated social media use. Therefore, this study focuses on the current information needs and social media use of Korean immigrants, the relationship between those two topics, the factors that influence immigrants' information seeking through social media, and immigrants' selection and use of social media.

1.2. **Research Problem**

Many scholars have investigated the diverse ways that immigrants use to find information for various information needs (Alam & Imran, 2015; Caidi et al., 2010; Martzoukou & Burnett, 2018; Shoham and Strauss, 2008). Caidi et al. (2010) argued that immigrants can face

tremendous challenges while adjusting to a new country, and they have a serious need to access robust information sources. Without sufficient information, immigrants struggle to make almost any decision. To solve this problem, they tend to rely on social networks (Courtright, 2005). However, immigrants may not be able to find necessary information resources in a host country because they haven't yet had enough time to build social networks there and find credential information resources (Caidi et al., 2010).

Several studies have investigated what kind of information immigrants require to live in their host country, but most of those studies are related to health information needs (Gany et al., 2006; Choi, 2013; Todd & Hoffman-Goetz, 2011) or how to solve initial information needs when immigrants first arrive (Shoham & Strauss, 2008; Lingel, 2011; Machet & Govender, 2012). Immigrants may have different information needs and seeking behaviors due to factors such as their cultural and social backgrounds. Alternatively, immigrants may have many information needs besides health and settlement, and those needs can be different based on their immigration situations and process of settlement. For example, information needs for education and child support are important to Korean immigrants who have children preparing college applications (Yoon et al., 2018). Employment information is also critical to immigrants (Caidi et al., 2010). These needs have different priorities and vary by the situation each immigrant faces. However, few studies have researched information needs required in everyday life in the host country. Moreover, few studies have considered factors such as cultural differences that affect the information-seeking behaviors of immigrants. For example, immigrants who have the same ethnicity and occupation could have different information-seeking behavior depending on their immigration period (Haight et al., 2014). Cultural differences can also influence immigrants to

be active or passive under huge uncertainties by their cultural actions or host countries' unfriendly attitudes (Chen, 2010; Froese et al., 2012). Therefore, Caidi et al. (2010) argue that there are many factors besides simple demographics that influence the information-seeking behaviors of immigrants, such as their cultural differences and personal experiences, but these factors have received less attention.

Identification of information needs is also important, but information resources and sharing have been considered less in the research, even though these are key components in diffusing and acquiring information in a minority group. Chatman's research (1999; 2000) showed that immigrants have a small boundary of information activities. In her studies, groups of immigrants relied on friends or close friends for solving their information needs. That means that their information sharing and acquisition do not go beyond their small community, and therefore information resources are limited. Therefore, researching information resources and sharing could suggest improvements to information practices and let us know how to help expand immigrants' information-seeking boundaries to improve their information quality and satisfaction (Fisher et al., 2004a, 2004b; Khoir et al., 2015). With regard to information resources and the acquisition and sharing of information among immigrants, social media's role in information sharing has also been investigated, and researchers have been interested in how social media affects the acculturation process (Dayani, 2017; Li & Tsai, 2015; Forbush & Foucault-Welles, 2016; Park et al., 2014). For example, Park et al. (2014) investigated how ethnic social media affected Korean and Chinese immigrants' acculturation process in the host country and found that the use of social media has a positive effect, such as reducing stress from acculturation and psychological well-being in the host country. Unfortunately, there are

limitations in studying information resources, especially social media. Most studies about immigrants' information resources have focused solely on the identification of information needs and how to support them through particular information practices (Chu, 1999; Caidi & Allard, 2005; Lingel, 2011; Silvio, 2006). A few researchers have focused on how immigrants use social media in their everyday lives (Gillespie et al., 2016). There is much research about immigrants' information-seeking behavior or needs, but most of them are related to women and students or the information-finding needs of immigrants, especially Korean immigrants (Kim Cho, 2012; Kim & Yoon, 2012; Oh & Kim, 2014; Sin & Kim, 2013).

The limitations of prior works that examined immigrants' information needs and social media usage are also present in studies about Korean immigrants' information seeking. Many previous studies identified Korean immigrants' information needs and revealed that Korean immigrants also faced the same insufficient information situation as other ethnic groups (Han et al., 2020; Jeong, 2004; Lee, 2019; Oh et al., 2013; Oh & Kim, 2014; Suh & Hsieh, 2019). However, Korean immigrants are in a different situation than other ethnic groups such as refugees, who are identified as having limited digital literacy, because Korean immigrants are from environments with advanced ICTs. Thus, few studies have investigated the role of ICTs among Korean immigrants (Suh & Hsieh, 2019). In particular, the usage of social media among Korean immigrants or how they use social media in their everyday lives in the United States have not received enough focus. In addition, previous studies have mainly researched information needs regarding the settlement process, health information seeking among female Korean immigrants, or Korean students' information needs. Few have focused on information needs in these

immigrants' everyday life or how they use social media in their everyday lives to meet their information needs (Lee, 2019; Oh et al., 2013; Suh & Hsieh, 2019).

Therefore, the goal of this research was to explore what types of information needs Korean immigrants have on social media and how they select and use social media in their everyday lives in the United States. This research aimed to investigate the information needs, selection, and usage of social media of these immigrants as well as the factors influencing their social media selection and use. To answer these questions, this research studied Korean immigrants in the United States and analyzed how they select and use social media in their new environment to meet their information needs.

1.3. Research Purpose and Research Questions

The objective of this research was to learn what types of information needs Korean immigrants have on social media and how they select and use social media in their everyday lives in the United States. According to Jeong (2004), the Korean church was the primary information resource for everyday life information seeking by Korean students and even immigrants. That was true at the time, but the paper was written over 19 years ago. Now, immigrants' behaviors are different because of technological developments such as smartphones and social media. People can access the information they want anytime and anywhere; also, the Internet and social media provide more interactive and faster functions than traditional face-to-face or paper-based information (Haight et al., 2014; Suh & Hsieh, 2019). Therefore, this study focuses on the current information needs of Korean immigrants and their social media use. Specifically, this study focuses on what kinds of information needs Korean immigrants have in the United States,

the leading social media for finding and sharing information in their everyday lives in the United States, what factors affect their social media selections, and finally, how Korean immigrants use social media in their everyday lives in the United States and what factors affect their social media usage patterns. The following are the research questions of this study.

RQ1. What are the top types of information needs on social media that Korean immigrants fulfill during their everyday lives in the United States?

RQ2. What types of social media do Korean immigrants most frequently use during their everyday lives in the United States for different types of information needs?

RQ3. Are there any relationships between the types of social media Korean immigrants select and demographic factors, ICT experience level, cultural factors, and information needs?

RQ4. What factors influence the selection of types of social media among Korean immigrants?

RQ5. How do Korean immigrants use social media for finding information during their everyday lives in the United States?

RQ6. What factors influence Korean immigrants' social media use for information seeking in their everyday lives in the United States?

1.4. **Research Design**

The study employed a mixed-method design, utilizing both quantitative and qualitative research methods in sequence. The aim was to gain a comprehensive understanding of the information needs of Korean immigrants in the United States, including how they selected and used social media. The quantitative phase identified types of information needs and types of social media at

first, and then the qualitative phase delved deeper into the reasons behind Korean immigrants' social media selection and usage patterns.

Questionnaires were used to collect data on participants' information needs, selected social media, and the relationship between the two, as well as the participants' background information. Interviews were conducted and diaries were kept to uncover hidden factors that may not have appeared in the questionnaires, and to explore the factors in the selection and usage of social media for meeting the information needs of Korean immigrants.

The quantitative method provided an overview of the top types of information needs and most frequently used social media platforms among Korean immigrants in the United States. It also revealed a relationship between types of information needs and social media usage, as well as how an individual's background influenced their social media selection. The qualitative method shed light on the factors influencing social media selection for specific information needs, how Korean immigrants use social media to seek information in their daily lives, and the factors associated with their usage patterns.

1.5. Significance of the Study

This study contributes to a broader understanding of immigrants' information needs and information-seeking behaviors. First, by covering immigrants from newcomers to established residents within the same ethnic group, this study fills the gaps in the previous literature concerning information-seeking behaviors of immigrants by focusing on a user group that previous literature focused less on. There are many studies of immigrants' information needs and

information-seeking behavior, but the focus of those studies has been the information needs of refugees, international students, or newcomers to a host country (Ahmadinia et al., 2021; Alam & Imran, 2015; Shoham & Strauss, 2008; Suh & Hsieh, 2019). Also, most studies have focused on identifying information needs in a certain specific group, such as students, during settlement or initial arrival, but there needs to be more study of the specific information needs of more established immigrants. Moreover, most studies have investigated immigrants or refugees who have limited access to ICTs or lower levels of information literacy than people living in the host country, but there are few studies focused on immigrants from high-technology environments and with better information literacy than their host country (Suh & Hsieh, 2019). This study covers immigrants from a country with a rich environment of ICTs and also immigrants from the same ethnic group with a variety of immigration statuses.

Second, this study covers information needs in the everyday life information-seeking behaviors of immigrants that have previously received less attention. There are many studies on immigrants' information-seeking behaviors, but most of them are related to health information needs (Gany et al., 2006; Todd & Hoffman-Goetz, 2011; Choi, 2013; Lee et al., 2014) or how to meet initial information needs when immigrants first arrive (Shoham & Strauss, 2008; Lingel, 2011; Machet & Governder, 2012). Many studies have researched some form of information needs, but immigrants have more information needs in their everyday lives, such as college preparation for their children (Yoon et al., 2018) or social support for the elderly (Jun et al., 2021). Immigrants have many information needs, and those needs can be different based on their situations and their process of settlement (Mwarigha, 2002). Therefore, this study reviews information needs previously defined in everyday life information seeking of immigrants and

examines what types of information needs Korean immigrants frequently demonstrate on social media.

Third, this study provides more significant explanations for previous models that applied to immigrants' information-seeking behaviors because this study examines the multiple factors that affect these behaviors. Ultimately, this study fills a gap in the literature by taking multiple factors into account. Immigrants can use the same information resources as host-country residents, but access to information resources may be more limited than that of host-country residents because immigrants rely heavily on closed networks due to smaller social networks, communication problems, or culture shock (Adkins et al., 2017; Caidi et al., 2010; Chatman, 2000; Fisher et al., 2004a, 2004b; Jeong, 2004; Lingel, 2011; Mao, 2015). Within those limitations, there are many factors besides demographics that influence the information-seeking behaviors of immigrants, such as their cultural differences and personal experiences, but these have drawn less attention (Caidi et al., 2010). Studies of the information-seeking behaviors of immigrants are needed to take multiple factors into consideration. Simple demographics, such as age and gender, as well as more detailed ones—including language proficiency problems, cultural values, immigration status, and technology usage—can cause considerable differences within the same ethnic groups. To solve those problems and acquire more accurate results, this study examined detailed immigrant demographics and also considered technological factors including the individual's experience with Internet and social media use, level of search skills, and satisfaction with social media, and cultural factors including language proficiency, year of residency, and types of residency. Furthermore, factors involving specific information needs were investigated.

Fourth, this study also proves significant in exploring the information-seeking behaviors of immigrants who seek, find, and select social media to meet their information needs.

Unfortunately, most studies about immigrants' information-seeking behaviors have focused solely on identifying information needs and how to support them by improved information practices, or why immigrants use ICTs including social media (Chu, 1999; Caidi & Allard, 2005; Silvio, 2006; Lingel, 2011). In contrast, this study focused on how immigrants select and use social media and the factors associated with those decisions. This study's findings show what factors influence immigrants' social media selections and how they use social media to meet their information needs. Identifying information needs is also important, but the associated characteristics of social media by types of information needs have been less considered in the research, even though they are critical components in receiving and sharing information in a minority group. Researching social media could suggest better information practices and indicate ways to help expand immigrants' information-seeking boundaries in order to improve their information quality and satisfaction (Fisher et al., 2004a, 2004b; Khoir et al., 2015). Therefore, the results of this research can be used to enhance guidelines for social media design for enhancing user satisfaction.

1.6. Definition of Terms

Major terms used in this proposal are defined below. This proposal uses library and information science and immigration terminologies. Alphabetical order is used for the key terms.

Everyday life information seeking (ELIS): Savolainen (2009) defined ELIS as follows: "The concept of ELIS refers to the acquisition of various informational (both cognitive and

expressive) elements, which people employ to orient themselves in daily life or to solve problems not directly connected with the performance of professional tasks or full-time study (p. 1781).” This can take two forms: problem-specific information seeking, which involves finding facts, and orienting information seeking, which involves monitoring everyday events through various sources and channels.

Immigrants: The International Organization for Migration (IOM) defines an immigrant in key migration terms as “From the perspective of the country of arrival, a person who moves into a country other than that of his or her nationality or usual residence, so that the country of destination effectively becomes his or her new country of usual residence (IOM, n.d).” However, there is no universal definition for this term because some researchers have broadened it to any non-national person who was not born in a host country, or have used “immigrant,” “foreigner,” or “foreign-born” interchangeably (Gimeno-Feliu et al., 2019). In this study, an immigrant is defined as a person who is born in a country other than the United States and who came to live in the United States.

Information behaviors: These are defined as “the totality of human behavior in relation to sources and channels of information, including both active and passive information seeking, and information use. Thus, it includes face-to-face communication with others, as well as the passive reception of information as in, for example, watching TV advertisements, without any intention to act on the information given (Wilson, 2000, p. 1).”

Information need: “a recognition that your knowledge is inadequate to satisfy a goal that you have (Case, 2016, p. 5).”

Information-seeking behaviors: In this research, these are defined as “purposive seeking for information as a consequence of a need to satisfy some goal. In the course of seeking, the individual may interact with manual information systems (such as a newspaper or a library) or with computer-based systems (such as the World Wide Web) (Wilson, 2000, p. 49).”

Korean immigrants: The U.S. Census Bureau defines Korean immigrants as immigrants from both North Korea and South Korea (O’Connor & Batalova, 2019). However, due to the small population of North Koreans in the United States (O’Connor & Batalova, 2019), Korean immigrants are here defined as Koreans who were born in South Korea and came to live in the United States.

Newcomer: This is defined here as a new immigrant who was not born in the United States, regardless of their legal status, and has lived in the United States for five years or less (Caidi & Allard, 2005).

Social media: This is defined as “a means of communication through the internet that enables social interaction (Xie & Stevenson, 2014, p. 502).” There are different types of social media including blogs, microblogs, RSS feeds, wikis, and social networking services (Xie & Stevenson, 2014).

Social network: Generally, social networks are considered to be social media platforms, such as Facebook or Reddit in the library and information science field (Ahn, 2011; Xie & Stevenson, 2014). However, the term “social networks” was used in sociology and other social sciences even before the Internet. To differentiate between social media and social networking services, the term social network is defined as a social structure created by an individual or organization and a network of interactions between individuals such as friends or coworkers (Wasserman & Faust, 1994).

Social networking service (or site): In this study, this is defined as an online platform that allows people to build social relationships or social networks with others who may be close friends or share the same interests, backgrounds, or activities (Obar & Wildman, 2015; Xie & Stevenson, 2014).

1.7. Chapter Summary

In this chapter, the background of the study was first introduced, and research problems were presented to identify the limitations of previous studies and state the goals of this study. Six research questions regarding the research purpose were proposed to investigate Korean immigrants’ information-seeking behaviors in a social media context. Furthermore, the research design as well as the data collection method and analysis were outlined. Finally, the significance of the study was described.

Chapter 2. Literature Review

In this chapter, previous literature about theories and models related to the information-seeking behaviors of immigrants will be examined, along with factors relating to immigrants' information needs and social media use. Overall, five research areas are reviewed in Chapter 2: (1) theories and models of information-seeking behavior and implication for research about immigrants, (2) immigrants' information-seeking behaviors and needs, (3) cultural backgrounds of Koreans and Americans (4) social media use of immigrants, and (5) factors associated with immigrants' information needs and use of social media.

2.1. Research on Information Needs and Information-Seeking Behaviors

2.1.1. Theories and models for information needs and information-seeking behaviors

Since system-oriented approaches have been considered to have some limitations for satisfying user needs, a user-oriented approach has been gradually accepted to fill the gap between information retrieval systems and users (Xie, 2007). Dervin and Nilan (1986) observed the importance of a user-based approach. Immigrants are also not general subjects of study, so targeted, focused approaches based on human subjects are required. Therefore, to support this study, five theories of information-seeking behaviors were selected for research modeling and theoretical background.

2.1.1.1. Sense-Making Theory

Dervin's (1992) sense-making theory is a methodological approach and theoretical perspective about human behavior with regard to information seeking and has been a dominant force in

recent research for studying how humans make sense through information seeking and use (Case, 2016; Bates, 2010). Dervin's sense-making theory gives us guidelines for information use in everyday life problems. It provides concepts such as situation, gap, and uses or helps (Dervin, 1992). People encounter many problems in daily life. When people are in difficult situations, they could use their own knowledge to solve them. However, if they do not possess the necessary knowledge, they will try to overcome the gap between the situation and the solution. For this, they will look for help. It is sense-making behavior, and it happens when we encounter things out of the scope of our knowledge. Sense-making theory not only provides guidelines for designing systems to serve people and help users ask proper questions (Dervin, 1998) but also reveals the problems that users experience and how they fill gaps (Case, 2016). Dervin's sense-making theory has been used in research as a theoretical foundation (Nycyk, 2010), as an interview methodology (Olsson, 2010), and for supporting the primary background knowledge of studies (Cooper, 2013; Johnson, 2003; Machet & Govender, 2012; Mehra & Papajohn, 2007; Shoham & Strauss, 2008). Most information needs and information-seeking behavior researchers use Dervin's theory as a starting point to build their theories of information seeking and identify the information needs of a group. The sense-making theory also provides a guideline for interviewers to learn a user's situation, gap, and behaviors under neutral questioning. Researchers have constructed their research directions based on Dervin's theory. However, Dervin's theory is so general that it does not give specific guidelines for practical study (Savolainen, 1993; Savolainen & Kari, 2006). Moreover, the gaps and situations are so individual and personal that the theory seems limited in application for investigating group and organizational information behavior (Tidline, 2005).

2.1.1.2. Small World Theory

Chatman's (2000) small world theory provides an alternative viewpoint of information-seeking behavior. Mainstream research on information seeking has studied aspects of individuals that impact information-seeking behavior, but Chatman focuses on social norms that seem to affect the information-seeking behaviors of a person and social group (Burnett & Jaeger, 2008).

According to this theory, information-seeking behaviors have a boundary, and the small world surrounding users defines and creates the boundary and viewpoint of use. Within a given small world, there are four key concepts—social norms, social types, worldview, and information behavior—and each small world is differentiated by the combination of the four concepts (Fulton, 2010). According to Burnett et al. (2008, p. 538), “social norms are the standards of judgment in social appearances, worldview is the collective perception held in common by members of a social world, social types are the social classification of a person, and information behavior is a state in which one may or may not act on available or offered information.”

Chatman defined the small world as the social environments where individuals live and are bonded together by shared interests, expectations, and even economic and geographic status (Burnett et al., 2008). Therefore, information access and exchange can occur in many ways, depending on the world's norms: official access points, channels of the public sphere, and interpersonal connections (Case, 2016). Chatman also used small world theory for studying the information poor who perceive themselves to be devoid of any sources that might help them (Thompson, 2009). Chatman's small world theory has been used to find information-seeking patterns and behaviors of minority groups to provide domain knowledge and frameworks (Caidi

& Allard, 2005; Machet & Govender, 2012). Researchers have used Chatman's theory to provide domain knowledge for their research and describe the background effects of the unique social aspects and situations of minority groups. In particular, researchers have used small world theory to explain contextual frameworks of information-seeking behavior for their research targets (Burnett et al., 2008; Caidi & Allard, 2005; Jaeger & Thompson, 2004; Machet & Govender, 2012). Small world theory can also be used as a theoretical foundation for developing new theories (Fisher et al., 2004a; Fisher & Landry, 2007). Fisher et al. (2004a) developed a new theory known as information ground, and Chatman's small world theory has been used to describe key components and context models of information ground. However, small world theory has been applied so broadly that some applications do not correspond with Chatman's intentions (Fidel, 2012). Small world theory is very useful for explaining social effects and contextual situations, but it has limitations in describing and defining the complexity of human aspects that could impact information-seeking behaviors, such as individualism and cultural factors (Savolainen, 2008; Sligo & Jameson, 2000; Sligo & Williams, 2001).

2.1.1.3. Everyday Life Information Seeking

Savolainen's (1995, 2005, 2008, 2009) Everyday Life Information Seeking (ELIS) is a framework for investigating individual and social factors affecting the ELIS of targeted users. Savolainen (1995, p. 259) defined "way of life" as the "order of things" from an individual's selections. Savolainen (2009, p. 1784) defined "thing" as "various activities taking place in the daily life world, including not only jobs but also necessary reproductive tasks such as household care and voluntary activities (hobbies)" and "order" as "preference given to these activities." Therefore, "order of things" means that individuals may order various activities, such as recreation in their

daily lives, based on their priorities or preferences. For example, some people opt for recreation time as their main preference, but others choose something else. This ordering of activities may not happen automatically. The ordering of daily activities could be based on an individual's cognitive order. This phenomenon was called "mastery of life" (Savolainen, 1995, p. 259; Savolainen, 2005, p. 144).

In the mastery of life, there are four categories:

- Optimistic-cognitive: "characterized by a strong reliance on positive outcomes for problem solving" (Savolainen, 2005, p. 144)
- Pessimistic-cognitive: "approached problem solving in a less ambitious way: there are problems that might not be solved optimally" (Savolainen, 2005, p. 144)
- Defensive-affective: "grounded on optimistic views concerning the solvability of the problem; however, in problem solving and information seeking affective factors dominate" (Savolainen, 2005, p. 144)
- Pessimistic-affective: "crystallized in the expression of learned helplessness. The individual does not rely on his or her abilities to solve everyday life problems" (Savolainen, 2005, p. 145).

Savolainen (1995, 2005) stressed that a person's values, conceptions, and current phase of life could affect mastery of life. However, way of life and mastery of life are not considered with regard to an individual's information seeking in every situation, because an individual's way of life only provides general criteria for preferences and associated resources, and mastery of life only explains the tendency to adopt a certain information-seeking strategy in problem-solving

situations (Savolainen, 1995). Therefore, Savolainen (1995, 2008) utilized two concepts in an empirical study conducted in Finland and suggested two major dimensions of ELIS: orienting information and problem-specific information. Orienting information seeking is an individual's daily habit of monitoring everyday events through various sources, and problem-specific information seeking is finding information for solving specific problems or performing specific tasks (Savolainen, 2008). Savolainen's ideas of ELIS have been used widely for researching specific issues or groups' ELIS (Caidi et al., 2010; McKenzie, 2003; Pettigrew, Fidel, & Bruce, 2001)

2.1.1.4. Planned-Situation Interactive IR Model

Xie's (2007) planned-situation interactive IR model emphasizes how plans and situations affect users' information-seeking strategies in their search processes. Xie's research explores relationships between levels of users' goals and tasks and how they are forced to use information-seeking strategies and tactics to achieve their goals and tasks. There are four levels of user goals—long-term goals, leading search goals, current search goals, and interactive intentions—and three levels of tasks—goals for a task, work tasks, and search tasks (Xie, 2007). A long-term goal is defined as “a user's personal goal that they will pursue for a long time, such as professional achievement”; a leading search goal is “a user's current task-related goal that leads to a search”; a current search goal is “the specific search results a user intends to obtain”; and interactive intentions “refer to sub-goals that a user must achieve to accomplish their current search goal.”

A task is defined as “what someone does to achieve a goal” (Xie, 2009). According to Xie, each goal and task have multidimensional characteristics that affect initial planning for searching

information, and a user's personal information infrastructure and social-organizational context also affect information-seeking and planning (Xie, 2008). All factors affect information-seeking strategies and tactics such as methods, entities, and attributes. Xie's model can be used as a conceptual model of study (Lee & Yoon, 2014; Sabbar & Xie, 2016). In Sabbar and Xie (2016), Xie's model became a base for classifying information search strategies and methods for searching tactics. It has also been applied in data analysis and provided a coding scheme so that researchers could acquire organizational results (Sabbar & Xie, 2016; St. Jean et al., 2012). Lee and Yoon (2014) used Xie's model to emphasize the role of search tasks, and they built their new model based on Xie's. Xie's contribution of focusing on tasks and goals has motivated studies about search strategies corresponding with information needs and motivation (Vilar & Zumer, 2011; Savolainen, 2012a; 2012b). However, Xie's model is limited to studying users' information-seeking behaviors because the planned situation model is more focused on the information retrieval system (Lee & Yoon, 2014), so information resources in different environments would be discovered.

2.1.1.5. Information Ground Theory

Information ground theory originated with Pettigrew (1999; 2000), and Fisher developed the theory further (Fisher et al., 2004a; 2004b; Fisher et al., 2006). The concept of information ground is the social setting of certain subject groups and the place to use and share information (Landry, 2014). According to Landry (2014, p. 65), "people frequent an information ground for a specific purpose, such as attending worship service, but end up sharing or receiving information with those present," so information grounds can be used to refer to any place that people gather on purpose and share information. Therefore, information grounds are not only physical places

such as libraries but also environments temporarily created when people come together, whether for sharing information or not, such as cafes and bookstores; this can occur at any time (Fisher et al., 2004b; Pettigrew, 1999). Information flow directions and forms are varied and have multiple contexts, such as group size and information quality or significance, to transform a general place into an information ground for users. People have at least one information ground, and the order of primary information resources varies between subject groups (Fisher et al., 2004b; Fisher & Landry, 2007; Fisher et al., 2006; Savolainen, 2008). Information ground theory provides not only a conceptual framework for information use and sharing (Khoir et al., 2015; Landry, 2014; Savolainen, 2008) but also encourages empirical research about the role of social settings among varied populations such as immigrants (Fisher et al., 2004a; Khoir et al., 2015), migrant farmworkers (Fisher et al., 2004b) and college students (Fisher et al., 2006). Also, the emphasis on information sharing between people and sources of information among people in the information ground has affected the study of interactions among people and resources (Caidi et al., 2010; Du et al., 2013). However, the information ground concept has some limitations in explaining how user behavior is shaped through social environments such as social norms (Landry, 2014) and how to collect and analyze data (Prigoda & McKenzie, 2007). The concept of information ground can be applied very widely and casually so that a subject's social norms would be different and varied in a given place (Savolainen, 2008; Landry, 2014). Further, in categorizing the type of information ground, there is a possibility of vagueness in participants' perspectives (Prigoda & McKenzie, 2007).

2.1.2. Implications for Immigrants' Information Needs and Information-Seeking Behaviors

People encounter many problems in daily life. When they are in problematic situations, they could use their own knowledge to solve them. If they do not know how to solve problems, they will seek information to help them. However, it is not always easy to represent what users want to find, because users cannot specify their needs (Belkin, 1980). The gap between situation and solution is increased by uncertainty, and people attempt to reduce the gap (Case, 2016). This process can be called sense-making behavior, and it happens when people encounter something out of the scope of their knowledge (Dervin, 1992). When people are in this situation, their information-seeking behavior is activated to bridge the gap. Many researchers have developed information-seeking behavior models (Kuhlthau, 1991; Savolainen, 1995; Wilson, 1999) and have focused on individual aspects of information-seeking behavior.

For immigrant information-seeking behavior studies, Dervin's (1998) individual and cognitive approach to sense-making theory has provided a foundation to investigate information needs from a situational gap, called a programmatic situation (Machet & Govender, 2012). On the one hand, when immigrants were in their home country, a gap between situation and outcome would either not exist or there would be a very short bridge between them. On the other hand, they may have a vast, long bridge in their host country because the situation may have changed, and the expected outcome may be different than in their home country. Shoham and Strauss (2008) mention many sub-needs created under information needs such as housing, education, and transportation. This new circumstance in a host country and the situational gap are important to resolve. In this situation, Dervin's theory provides a clue to information-seeking behavior in the

everyday life of immigrants. However, there are two limitations to solely applying Dervin's sense-making theory to the study of the information-seeking behaviors of immigrants. First, Dervin's sense-making theory is focused on individual and demographic factors but is less concerned with social aspects such as cultural differences (Caidi & Allard, 2005). Second, information-seeking behavior does not always follow a linear path or the optimal route for meeting a user's information needs (Machet & Govender, 2012).

The majority of research on information seeking has focused on individual aspects that affect information-seeking behaviors (Lingel, 2011). However, there are reasons to research the social contexts that affect information-seeking behaviors. Some researchers have focused on this problem and researched the social aspects of information-seeking behaviors (Chatman, 2000; Caidi & Allard, 2005; Machet & Governder, 2012; Silvio, 2006). Shoham and Strauss (2008) observe that both individual information needs and group information needs affect individuals and that immigrants' individual and social environments affect information needs. Small world theory focuses on social norms that seem to affect a person and social group's information-seeking behaviors and provides an alternative viewpoint of information-seeking behavior (Chatman, 2000). According to Chatman's small world theory, information-seeking behavior has a boundary made by the small world, which defines and creates the limitations and viewpoints of users from the surrounding environment of users. Many accessible information resources surround immigrants, but their information-seeking behaviors tend to stay in the group that has a similar difficulty or inability to obtain useful information (Caidi & Allard, 2005). In this circumstance, the gap and uncertainty among immigrants could be bigger than among host-country residents due to language barriers and cultural differences, so their information-seeking

process could be more challenging and have smaller boundaries than that of host-country residents (Fisher et al., 2004b; Lingel, 2011). In addition to individual aspects and challenges, differences based on ethnicity or other group identities also affect immigrants' information-seeking behavior (Markus & Kitayama, 1991; Lingel, 2011). However, the small world theory is limited with regard to defining the information-seeking behaviors of immigrants because it only covers social aspects, and it lacks analysis of individual complex needs, such as cultural differences and work roles (Savolainen, 2008; Sligo & Jameson, 2000; Sligo & Williams, 2001).

To discover more detailed information-seeking behaviors of immigrants using social media, Savolainen's concept of ELIS (1995, 2008, 2009) has been used to study immigrants' information-seeking behaviors, along with other theories of information-seeking behaviors, such as Chatman's small world theory or Dervin's sense-making theory. ELIS provides a guideline to investigate social and psychological factors, such as social position and cultural context, that affect the source preferences of an individual or a specific group, and it also helps to identify more detailed information needs and how an individual or a specific group will seek information to meet their needs (Fisher et al., 2006; Savolainen, 2009). It means that information-seeking behaviors for meeting people's information needs are related to a situation that an individual is located in (Harris & Dewdney, 1994; Wathen & Harris, 2006). Savolainen (2008) distinguishes orienting information seeking, which is information searching without an intent to solve, and problem-specific information seeking, which is information searching with the intent to solve specific problems. However, the two modes are sometimes hard to distinguish and may even interconnect (Caidi et al., 2010). In particular, orienting information seeking, such as monitoring the environment for information about the new culture, can solve specific problems that are

defined as solved by problem-specific information seeking. Nevertheless, the two concepts (orienting and practical information seeking) of ELIS have been used to define the information needs and information-seeking behaviors of immigrants (Caidi et al., 2010; George & Mwarigha, 1999; Jeong, 2004). Therefore, the types of information needs and information-seeking behaviors defined in previous ELIS research will provide a guideline for identifying information-seeking behaviors of immigrants in a social media context and correct the lack of small world theory.

Similarly, Xie's model will be used for deeper analysis to make up for the weak points of defining the complexity of personal characteristics in previous research. According to Xie's model (2007; 2008; 2009), many factors, such as goal, task, and social-organizational context, affect information-seeking behaviors and strategies. According to Xie (2009, p. 340), goals and tasks lead "users to look for information" and affect "how they seek information," and the relationship between goals and tasks is that higher levels of goals and tasks influence lower levels of goals and tasks. Also, personal information structures, such as knowledge skills and cognitive style, affect how people plan their searches, and an individual's social-organizational context can influence both goals and personal information infrastructure. In summary, users make a plan for their information-seeking strategies and tactics based on social-organizational context and personal information infrastructure to reach their goals and complete their tasks, which also affects how they build the plan (Xie, 2007). It can be applied to anyone, but immigrants might have different or more attributes than host-country residents in terms of personal information infrastructure and level of goals and tasks because they have higher uncertainty and may need to spend more time adjusting and dealing with unfamiliar rules (Khoir et al., 2015). Therefore, initial information search planning for immigrants is more complicated

than for host-country residents and also has more hidden variables such as ethnic bonds, non-fluency in the host country's language, and familiar information resources (Fisher et al., 2004b; Jeong, 2004). In addition, immigrants' personal knowledge and experiences affect the entire process of information-seeking behavior (Hsieh-Yee, 2001), and there may also be different search strategies due to language differences (Sabbar & Xie, 2016). In this complex circumstance, Xie's model can reveal how immigrants build information-searching strategies and provide the opportunity to analyze each process of information-seeking behavior and how it is formed and used.

In addition to Xie's model, information ground theory can provide a more detailed point of view. In previous models and theories, information resources, especially social media, have not been widely considered as information needs and seeking, but information ground theory has contributed the notion of information use and sharing to the role that context plays in a user's information behavior (Landry, 2014). An information ground can occur at any time and any place, such as a coffee shop, in addition to formal information resources such as libraries (Fisher et al., 2004b). Information ground theory has been applied to immigrant societies for identifying what kind of information ground they have, how they use it, and how information practices increase immigrants' information literacy (Caidi et al., 2010; Fisher et al., 2004a; Fisher et al., 2004b; Khoir et al., 2015). Moreover, this theory has been tested with various professional groups, such as students and marketing professionals (Du et al., 2013; Fisher & Landry, 2007). In Fisher et al. (2004b), church, school, and workplace were identified as information grounds of Hispanic migrant workers, who shared information when they visited those places. Libraries have been studied as information grounds, but libraries were not a major information ground for

immigrants (Fisher et al., 2004a) or international students (Bordonaro, 2006), compared with other information grounds like churches and college campuses. This research revealed that most people have at least one information ground (Landry, 2014). Recently, information ground has been specified by the people-place-information trichotomy (Savolainen, 2008) and has expanded its subjects to, for example, physical therapy and the World of Warcraft electronic gaming environment (Landry, 2014). However, Landry (2014) observed that an information ground does not shape information-seeking behavior, and the application of information ground theory is varied and difficult because of the diversity of subjects (Prigoda & McKenzie, 2007). Despite this, information ground theory can help identify social media as one of the important existing information resources among immigrants, how immigrants have used it, and why they select it as their information ground. Table 1 shows how these various applied theories contributed to this study.

Table 1. Summary of Applied Theories in the Information-Seeking Behaviors of Immigrants

Theory	Contribution	Limitation	Implication
Dervin's Sense-Making	<ul style="list-style-type: none"> • Defined nature of a problematic situation in everyday life 	<ul style="list-style-type: none"> • Generalized concept • No specific process 	<ul style="list-style-type: none"> • Theoretical support to define gap of immigrants' information needs and information-seeking behaviors
Chatman's Small World	<ul style="list-style-type: none"> • Defined social norm • Provided predictable boundary of information seeking 	<ul style="list-style-type: none"> • Generalized concept • Lack of individual information seeking • No specific process 	<ul style="list-style-type: none"> • Defining the particular characteristics of social-organizational context among immigrants

Savolainen's Everyday Information- Seeking Behavior	<ul style="list-style-type: none"> • Defined micro level of information-seeking behaviors and needs 	<ul style="list-style-type: none"> • Two modes (orienting and practical information seeking) can be intertwined 	<ul style="list-style-type: none"> • Defining information needs and information-seeking behaviors in the everyday life
Xie's Planned- Situational Interactive IR Model	<ul style="list-style-type: none"> • Defined from micro level of information-seeking strategies to macro level of searching and retrieval components 	<ul style="list-style-type: none"> • Need to define more about work roles/tasks/goals and related information sources and seeking strategies 	<ul style="list-style-type: none"> • Reveal information seeking strategy • Define complexity of personal characters related with goal and task
Information Ground Theory	<ul style="list-style-type: none"> • Defined existing information resources • Included the notion of information user and sharing in user's information behavior 	<ul style="list-style-type: none"> • Not enough to explain how user behavior is shaped • Difficult to collect data and analysis 	<ul style="list-style-type: none"> • Show how social media is working as information resource for immigrants

2.2. Uniqueness of Immigrant Information Needs and Information-Seeking Behaviors

2.2.1. Various Information Needs of Immigrants

Information needs are defined in this study as “a recognition that your knowledge is inadequate to satisfy a goal that you have” (Case, 2016, p. 5). Belkin (1980) states that information needs are created by the gap between what a person knows and does not know or what a person knows and what a person needs to know in an anomalous state of knowledge. Specifically, Dervin (1998) explains that information needs are the gaps that occur when a person cannot move to the next step until they fill the gaps with knowledge. Furthermore, the reasons that the information

needs arise are various because different users are in different situations, and their requirements to fulfill their gaps are also different (Bigdeli, 2007). Chowdhury (2010) summarizes information needs as vague phenomena that arise from a person's current knowledge being insufficient to solve a task or question so that the knowledge gap is not sufficiently bridged.

Some immigrants, like self-initiated expatriates, have tried to change their status from a temporary permit, such as an H1B in the United States, to become permanent residents. Other immigrants are dispatched or sponsored by organizations of their home country and maintain their temporary immigration status (Seol, 2012; Showail et al., 2013). There are many forms of immigration status in foreign countries, but they all have one thing in common: whatever their status, these immigrants have insufficient information and resources (Khoir et al., 2015; Machet & Govender, 2012; Shoham & Strauss, 2008). Savolainen (2008, 2016) observes that there are many sociological and cultural barriers, such as language problems and cultural taboos, that affect information seeking in diverse contexts.

In these diverse environments, the immigrants' information needs are also diverse, and many factors affect their formation. For immigrants, initial information needs are often related to how to settle in a new country without serious obstacles (Lingel, 2011; Machet & Govender, 2012; Peterson, 2014; Shoham & Strauss, 2008). Mwarigha (2002) identified three stages in the settlement process of newcomers: new, intermediate, and last. In the new stage, immigrants are trying to find orientation information on topics such as language learning and a place to live. In the intermediate stage, immigrants' needs are related to understanding the systems and services of their resident country for a long-term stay. In the last stage, immigrants are looking for ways

to be equal participants in their resident country, the same as the citizens of the country. Every stage has many steps involved in adjusting to immigration and living in new countries, leading to the primary information needs of housing, schooling, health, driving, banking, legal issues, work, and language (Shoham & Strauss, 2008). Suh and Hsieh (2019) revealed that Korean immigrants had information needs in jobs, housing, health, law, education, banking, socializing, and transportation. Fisher et al. (2004b) studied Hispanic workers' information ground and categorized their information needs into consumer affairs, education, employment, health, home, housing, legal information, transportation, and other needs. Immigrants have more information needs than host-country residents, and it is critical that these primary information needs be satisfied for successful settlement in the new resident country (Khoir et al., 2015; Shoham & Strauss, 2008; Suh & Hsieh, 2019). After satisfying basic individual needs, immigrants' information needs move to civic participation or social connection through domestic relationships (Caidi et al., 2010).

In particular, health information is one of the main information needs among immigrants, but also the most challenging to find the right information for (Ahmadinia et al., 2021; Suh & Hsieh, 2019). Information needs for health information among immigrants have been studied, especially for refugees and immigrant women (Ahmadinia et al., 2021; Lee, 2019; Sayakhot & Carolan-Olah, 2016). Suh and Hsieh (2019) studied Korean immigrants' information needs, and they found that health information is one of the most challenging types of information to search, access, and understand because of a language barrier and insufficient knowledge about health information. Ahmadinia et al. (2021) investigated the health information needs and information seeking of refugees in Europe. They conclude that finding health information is very hard for

refugees because of the lack of knowledge to access health information services. There are many information needs of immigrants, but this study uses categories from Caidi et al. (2010), who categorize immigrants' information needs based on Savolainen's two concepts: orienting information seeking and problem-specific information seeking. Table 2 shows detailed lists of the information needs of immigrants.

Table 2. Categories of Information Needs of Immigrants (Caidi et al., 2010, pp. 503–504)

Category	List of Information Needs
Orienting Information Seeking	<ul style="list-style-type: none"> • Monitoring the environment for information about the new culture as well as orientation on “life in the new country” • Information about cultural or religious events • Political information and current events (including news about the country of origin) • Information about broader societal contexts, including identity issues
Problem-Specific Information Seeking	<ul style="list-style-type: none"> • Language information (including information about training, translation, and interpretation services) • Employment information (including job-searching skills and special services for foreign trained professionals) • Information about making connections in the community (including connections to professional associations, volunteering opportunities, mentoring, and community organizations) • Housing information • Health information • Information about workplace safety • Legal information • Education-related information • Information about recreation • Information about transportation • Information about banking

2.2.2. Information-Seeking Behaviors of Immigrants

Information-seeking behaviors can be described as intentional human activities for resolving uncertainty or lack of information, according to many researchers (Vakkari, 1999; Wilson, 2000; Peterson & Merino, 2003). For example, Vakkari (1999) defines information seeking as a process of searching, obtaining, and using information for a purpose when an individual does not have sufficient prior knowledge. Wilson (2000) also states that information-seeking behavior has the purpose of finding information for satisfying a goal that results from a need by interacting with manual information systems such as newspapers or with computer-based systems such as the Internet. Peterson and Merino (2003) argue that information seeking has the intention that the use of knowledge is to complete a task. Therefore, the process of information seeking is the activity undertaken to reduce the gap between what a user wants—information needs—and what a user has—prior knowledge (Dervin, 1992; Case, 2016). Specifically, information-seeking behavior is a set of actions in which a person expresses information needs and then seeks, evaluates, and selects the right information for him or her, and finally uses the information to fulfill his or her information needs (Kakai et al., 2004).

Information-seeking behaviors of immigrants also vary because of differing information needs. Researchers have investigated immigrants' information needs and associated information-seeking behaviors and found that the various information needs stimulate their information-seeking behaviors and the strategy for information seeking is changed by new information needs in a host country (Courtright, 2005; Lee, 2019; Mason & Lamain, 2007; Oh & Butler, 2016). For example, work- and career-related information is identified as a priority for immigrants because

both are critical elements to maintaining a job in a host country (Showail et al., 2013).

Immigrants who had a job in their home country knew how to work in certain fields, but their roles and work environments in their new countries are not the same as in their home countries. This means that they already have information-seeking procedures for finding information from their experiences in their home countries, but their information-seeking strategies are inadequate in their new environments due to a lack of information about their new organizations and country (López-Jacob et al., 2010; Showail et al., 2013). Under unfamiliar circumstances, their strategies for information seeking are divided into two types: finding helpful information for their work roles and tasks, and finding information resources for new job openings (Bolino, 2009; Showail et al., 2013). Bolino (2009, p. 19) indicated that immigrants seek information about “how to perform their jobs (i.e., technical information), ask what is expected of them (i.e., reference information), and ask about the appropriateness of their social behavior at work (i.e., social feedback),” and the searches are related to “positive socialization outcomes, including job satisfaction, performance, and intention to remain on the job.” In sum, immigrants try to find as much information as they can to understand and adjust to unfamiliar work environments (López-Jacob et al., 2010; Showail et al., 2013), but if information needs are not satisfied, their needs for new job openings for continuing their careers could be increased (Bolino, 2009).

Different resources for information-seeking behaviors are represented by various researchers. It means that different immigrant groups’ information-seeking behaviors could have different tactics for finding information. For example, Lee (2019) researched a comparison of mothers’ health information-seeking behavior between American mothers, Korean mothers, and Korean mothers in the United States and revealed a significant difference in information-seeking

behavior among the three groups, especially in information source preferences and the mothers' frequency of using each information source. Courtright (2005) investigated Latino newcomers' health information-seeking behaviors and found that Latino newcomers tended to use personal networks as primary sources of health information in the host country, even though health professionals and organizations are available to them. In addition, many researchers have investigated immigrants' information-seeking behaviors and found an interesting behavior: relying on gatekeepers (Chu, 1999; Jeong, 2004; Metoyer-Duran, 1993; Silvio, 2006). Chu (1999) states that a person who could speak both the language of the mother country and the official language in the host country became an ethnolinguistic gatekeeper because they had the ability to access and disseminate information, even though they did not have professional knowledge about the information they delivered. Jeong (2004) researched information-seeking behaviors of Korean graduate students in the United States and identifies Korean Christian church members as the main information gatekeepers for the students because of language problems and the comfort of familiar surroundings, even though the information from the church is not accurate or sufficient.

Compared to host-country residents, immigrants' information-seeking behaviors have more strategies for seeking information, such as monitoring events and avoiding the language of the host country (Cardi et al., 2010; Jeong, 2004; Mwarigha, 2002). In particular, Mwarigha (2002) researched the settlement process of newcomers and found that finding language interpretation and instruction is one of the key components in finding settlement information in immigrants' information-seeking behaviors. However, Jeong (2004) interviewed Korean graduate students in the United States, and avoiding English information resources was one of their information-

seeking patterns; their information-seeking behaviors were limited to Korean communities. Cardi et al. (2010) state that newcomers attempt to find ways of monitoring everyday events via multiple information resources in their early stages of settlement because they do not have any information about the host country, and so immigrants want to orient themselves to life in the new country. However, most immigrants struggle with information overload and difficulties in accessing appropriate information due to language barriers or lack of knowledge.

2.2.3. Challenges for Immigrants' Information Seeking in the Host Country

2.2.3.1. Gaps and Uncertainty in Immigrants' Information Seeking

People encounter many problems in daily life. As mentioned before, the gap between a situation and its solution is increased by uncertainty, and people have needs and thus attempt to reduce the gap (Case, 2016). According to Savolainen (1995), information needs and information-seeking behaviors are related to the aspect of information acquisition for living that is not only a school- or job-related task but also miscellaneous decision making, such as shopping. However, these information needs and information-seeking behaviors in everyday life among immigrants are different from those of host-country residents due to the boundary of ethnic groups and also the tendency to stick together within the same ethnic group (Chatman, 2000; Jeong, 2004).

For immigrants, the gaps and uncertainty could be bigger than for host-country residents due to a language barrier and cultural differences, so their information-seeking behaviors could have more challenges and smaller boundaries than those of host-country residents (Fisher, 2004). Individual aspects could be universal, but there are existing cultural differences among ethnic groups or different group identities (Markus & Kitayama, 1991). Some researchers, like

Chatman, focused on this problem and researched information-seeking behaviors' social aspects (Chatman, 2000; Caidi & Allard, 2005; Silvio, 2006; Machet & Governder, 2012). These researchers' focus was on the information-seeking patterns and behaviors of minority groups. In particular, Chatman's small world theory provides an alternative viewpoint of information-seeking behavior. The mainstream of research into information seeking has studied individual aspects that affect information-seeking behaviors (Dervin, 1992). However, Chatman focused on social norms that seemed to affect the information-seeking behaviors of a person or social group. According to Chatman's small world (2000), information-seeking behavior has a boundary created by the small world, which defines and creates the limitations and viewpoints of users from the surrounding environment of users. Many accessible information resources surround them in form of host-country nationals, but the immigrants' information-seeking behavior tends to stay in the group with a similar identity.

2.2.3.2. Difficulties in Information Seeking for Immigrants

The majority of immigrants in the United States strive to improve their lives and those of their families, and so they wish to enhance their financial, societal, and occupational achievements (Clark, 2003). Therefore, immigrants have many information needs for living, but their information-seeking behavior is changed, and the boundary of information searching reduced, by a lack of information resources or the inability to access information resources (Caidi et al., 2010; Khoir et al., 2015; Kim Cho, 2012; Kim & Yoon, 2012; Shoham & Strauss, 2008). This change can be caused by language problems or cultural differences (Caidi et al., 2010; Waters & Pineau, 2016). For example, according to some studies (Jeong, 2004; Kwon et al., 1997; Min, 1991), Korean immigrants have strong ties to their ethnic group due to the language barrier,

culture shock, and lack of educational opportunities and occupational skills in the United States. Also, their surrounding environment and information sources are very different from South Korea, so their information-searching behaviors could have more obstacles than in their home country (Jeong, 2004; Kim Cho, 2012; Kim & Yoon, 2012; Oh & Kim, 2014; Sin & Kim, 2013).

It is obvious that difficulties and challenges faced by immigrants in the host country shape their information-seeking behaviors. In previous studies, many researchers have observed that most immigrants' information-seeking boundaries are small and limited to the same ethnic groups or experience groups for various reasons, such as language proficiency, negative experiences with the host country's information resources, and lack of knowledge about their surroundings in a host country (Caidi et al., 2010; Fisher et al., 2004b; Khoir et al., 2015; Silvio, 2006). For example, negative experiences due to language fluency and cultural differences have led immigrants not to seek information actively (Mao, 2015). Similar cases are found in other studies of immigrants: southern Sudanese in Canada, North American immigrants in Israel, and Asian immigrants in Australia (Khoir et al., 2015; Silvio, 2006; Shoham & Strauss, 2008). Silvio (2006) found that young southern Sudanese immigrants preferred information from close and trusted friends, relatives, and coworkers. Shoham and Strauss (2008) state that there are many information resources provided by immigration organizations like listservs and websites, but every interviewee complained of trouble finding information about where to settle and live and that they had to acquire such information from friends. The same situation happens to other immigrant groups, such as immigrant workers who have a job in a host country (Fisher et al., 2004b; Thomas, 2008). Thomas (2008) found that migrant workers in Singapore preferred to

find job-related information from families and friends. Similarly, Fisher et al. (2004b) indicate that the primary sources of information among Hispanic immigrant workers are family and friends. In Fisher's study, Hispanic workers tended to stay in closed relations with their family and friends to find information or they did not seek out further information, even though it existed right outside of their small world boundary when they did not find the right information from their trusted resources. In addition to family and friends, immigrant workers acquired information from their colleagues (López-Jacob et al., 2010; Showail et al., 2013). For example, López-Jacob et al. (2010) interviewed immigrant workers and found their information-seeking was tied to their coworkers or someone who had already gone through the same situation. In sum, immigrants' information-seeking behaviors and boundaries are problematic in that their trust is not based on the quality of information but on the closeness of the sources of information, such as relatives and people in the same ethnic group or organization (Caidi et al., 2010; Fisher et al., 2004b; Kim Cho, 2012; Oh & Kim, 2014; Silvio, 2006).

These difficulties and limitations also apply to Korean immigrants. According to prior research (Jeong, 2004; Sin & Kim, 2013), Korean immigrants struggle to find reliable information resources, and their information-seeking behaviors become more limited than when they had been in their home country due to language problems and lack of knowledge of how to access information resources. Before the Internet, Korean churches were the main places for creating and sharing information because they were the fastest way to acquire and share information (Jeong, 2004). According to Jeong (2004), a pastor provided news from South Korea, and new members, such as students, listened for information from older members who had more experience. In this information-seeking process, there was no validation process, and information

just flowed from top to bottom (Jeong, 2004). This process, and the ethnic bonds caused by language barriers, led Korean students and immigrants to remain close and share their experiences and search for information during their social meetings at church (Kwon et al., 1997; Jeong, 2004). According to Chatman's conclusion that minority or vulnerable population groups are not active seekers of useful information but rather stay in close, familiar groups, it is possible to think of Korean churches as the Koreans' small world, which was efficient even though their information quality was not as rich as expected (Chatman, 2000).

In addition, lower satisfaction and negative emotions also cause immigrants to pursue passive modes of information-seeking behavior and to tend to stay inside their small world of immigrants (Mao, 2015; Shoham & Strauss, 2008). According to Shoham and Strauss (2008), lower satisfaction due to difficult experiences in information seeking limit the successful resource choices of immigrants. Similarly, Mao (2015) observes that negative emotions from difficult experiences seeking information led immigrants to seek information only from trusted sources and give less consideration to whether the information is accurate.

In sum, immigrants' information needs and information-seeking behaviors are complex and have significantly different elements. Table 3 shows a summary of immigrants' information-seeking behaviors described in this section.

Table 3. Challenges in Information Seeking among Immigrants

Category	Summary
Gaps and uncertainty in information seeking of immigrants	<ul style="list-style-type: none"> • Various information needs stimulate their information-seeking behaviors • The method of information seeking varies according to information needs • More strategies for seeking information than residents in a host country • Different information-seeking strategies are influenced by different situations of immigrants, even when immigrants are in the same ethnic group
Difficulties in immigrants' information seeking	<ul style="list-style-type: none"> • Insufficient information and resources • Language problems • Cultural difference • Lack of knowledge of how to access information resources • No validation process for trusted information resources • Staying with trusted people or group and not actively seeking other resources • Lower satisfaction with and negative emotions from outside information resources of ethnic groups

2.3. Cultural Background Between Korea and the United States

Life in another country is filled with uncertainties—sometimes considerable—and it can seem like the uncertainties cannot be resolved. Therefore, researchers state that knowing a different culture or the difference between cultures is critical to being successful in a new country (Gesteland, 1999; Usunier et al., 2005). Technology development has allowed for the reduction of uncertainty because people can find information via the Internet, but there are still some problems with regard to finding the right information in another country and communicating with people who speak a different language and have a different culture than one's own.

Specifically, communication, which is based on proper language and intercultural knowledge, is a key element to learning to live in another country and adjusting to life there (Froese et al., 2012; Jeong, 2004; Morales & Zhou, 2015). Satisfaction of information needs is a key factor in a successful absorption process (Shoham & Strauss, 2008), and learning the new country's language are key parts of better fulfilling information needs (Baron et al., 2014; Froese et al., 2012; Showail et al., 2013). Therefore, smooth communication can be regarded as a key element of information seeking. Many researchers have studied intercultural communication and what kinds of things significantly improve intercultural communication (Hall, 1976; Lim, 2002; Whorf, 1956). Earlier researchers focused on language and believed that languages are not only the representation of one's mind but also determine one's thinking (Whorf, 1956). According to Lim (2002), Sapir, Whorf, and Humboldt introduced the term "linguistic relativity" because they thought that a language's structure influenced users to have a worldview that was different from speakers of other languages. According to Whorf's hypothesis (1956), language is a portal into, and a window onto, a culture's worldview.

However, some researchers argue that empirical studies of Whorf's hypothesis did not have enough evidence and, as a result, could not show significant differences (Lim, 2002; Wardhaugh, 1998). In other studies, researchers wanted to determine how languages were bonded to their cultural contexts and users (Bernstein, 1972; Hall, 1976; Lim, 2002). Recent studies of culture are based on functional relativism, which argues that language itself does not form a worldview, but the usage pattern of language determines a person's worldview because language and culture have a reciprocal relationship (Lim, 2002). Besides studying language, intercultural communication scholars have studied culture itself (Dahl, 2003; Hall, 1976; Schwartz, 2006).

Cultural values and resultant behavior have been studied frequently. Many researchers have investigated how culture is categorized, such as high context or low context, individualistic or collectivist (Dahl, 2003; Hofstede, 1994; Schwartz, 2006).

Even though these approaches have given us a more flexible and open point of view, those studies were one-directional approaches based on the Western model of the universe or a simple generalization based on a few factors (Lim, 2002). Therefore, recent studies have focused on identifying cultural factors, such as nonverbal forms of communication (e.g., kinship and social roles), that are introduced as a means to understand the differences between cultures. These factors provide alternative ways to comprehend the differences between cultures because a simple point of view cannot determine culture or personal behavior. Scholars consider intercultural communication to be a key element of adjusting to a new country and understanding another culture. Some studies have examined immigrants' information behaviors, particularly how intercultural communication influences their information-seeking behaviors and adjustment to a new country (Froese et al., 2012). For example, ethical issues, work attitudes, and miscommunication may arise from not fully understanding another culture, but increased knowledge of intercultural communication can reduce these problems. In particular, Koreans and Americans have very different languages and cultures.

2.3.1. Distinct Cultural Backgrounds in South Korea and the United States

Many researchers hold that Asian and Western cultures are different because their conceptualizations of the world are quite different (Gesteland, 1999; Hall, 1969, 1973; Hofstede, 1994, 1998; Lim, 2009; Lim et al., 2011). Besides spoken language, some researchers have

focused on nonverbal language, such as chronemics (time), proxemics (space) (Gesteland, 1999; Hall, 1969, 1973), and worldview (Hofstede, 1994; Lim, 2002; Moemeka, 1998). For example, Gesteland (1999) writes that Americans live in monochromic cultures, whereas Arabs and Southeast Asians live in polychromic cultures. Different concepts about time and space that include language have led to new ways of thinking that form significant cultural differences between Koreans and North Americans.

2.3.1.1. The Way Individuals Approach the World

To explain the difference, Hofstede (1980) proposes the individualism–collectivism framework. He defines collectivism as the degree of integration into a group and individualism as the degree of a tendency toward an individual. He posits that people from collectivist societies are more likely to prioritize the needs of their family or group over their own interests. Therefore, people from collectivistic societies value the group’s accomplishments more than their own. He considers East Asian countries such as Korea to be collectivist societies (Hofstede, 1998). His research has influenced researchers’ widely accepting a stereotype or myth that Americans are more individualistic and Asians are more collectivistic. However, some studies indicate that the measurement of individualism–collectivism has not been validated and cannot be applied to all countries (Bond, 2002; Miller, 2002; Nishida, 1996; Oyserman et al., 2002). Nishida (1996) argues that the individualism–collectivism dichotomy is based on a Western perspective. He observes that the individualism–collectivism framework put non-individualistic countries into the collectivist category, even though some countries like Japan were not collectivist.

Because of the limitations of the individualism–collectivism framework, several scholars have suggested alternative perspectives or supplementary concepts (Markus & Kitayama, 1991; Moemeka, 1998). First, scholars have proposed alternative approaches that redefine the individualism–collectivism relationship. Moemeka (1998) argues that the opposite of individualism is not collectivism but communalism, which is “the principle or system of social order in which, among other things, the supremacy of the community is culturally and socially entrenched, society is hierarchically ordered, life is sacrosanct, and religion is a way of life” (p. 124). Alternatively, some scholars have attempted to overcome the limitations of the individualism–collectivism framework in a different way. Some East Asian cultures are not suitable for the individualism–collectivism framework, so another framework needs to be developed (Lim & Giles, 2007; Nisbett et al., 2001). According to Nisbett et al. (2001) and Lim and Giles (2007), Westerners approach the world analytically, but Easterners usually take a holistic view so that holistic and analytic peoples’ conceptual structure of relationships is different. Lim and Ahn (2015) state that in holism, nothing is isolated and independent, but everything is interconnected relatively. In other words, holism posits that everything is interrelated, and the relationship already existed before a person was born. An analytic worldview allows people to categorize the world.

This framework helps explain different behaviors among Koreans and Americans. According to Lim and Giles (2007), Korean college students have a relative personal identity that is easily affected by changing situations because they consider many things that are related to them and how those items affect their face. American students have a more stable, universal personal identity in changing situations because they focus on the visible components between the

situation and themselves. Lim and Giles also observed that Asian businesspeople do not separate personal and business relationships. In contrast, Americans maintain separate business and personal relationships.

2.3.1.2. The Way People Relate to Each Other to Function Properly in the Social Network

These different ways of thinking influence communication styles. Many elements, such as status and power, affect people's relationships and their use of linguistic codes. According to Gesteland (1999), people in formal cultures tend to be organized in hierarchies of status and power that must be respected. In informal cultures, hierarchies of title, status, age, and position are not significantly represented in conversation, and many do not respect these hierarchies. In contrast, showing and respecting status differences among customers, governors, and elders is critical in formal cultures. For example, status, especially age, is widely accepted as one of the most powerful elements in Korea and is respected through strict verbal and nonverbal practices. For example, younger people cannot call elders by only their first names; they need to use that name with a title or can use only the title to save face (Ervin-Tripp, 1974; Lim, 2009). Conversely, North America is considered an informal culture, so its communication style is generally very casual in most situations (Gesteland, 1999).

Korean culture and Western culture also differ in their interactions with others. Face is considered as an interaction between two people in Western cultures, but non-interaction-specific face is often considered to be more important than interaction-specific face. Goffman (1967) defined "face as an image of self delineated in terms of approved social attributes" (p. 5).

Therefore, face is a social construct and is intended to work positively because saving face is

same as maintaining a reputation. Usually, face maintenance is a condition of interaction, not its objective. Facework refers to any behavior that is designed to save a person's face (Goffman, 1967). Goffman divided facework into avoidance process (for preventing current or future threats), corrective process (for fixing a threatened face), and aggressive use (for reestablishing face). All facework can neutralize a particular threat, and the choice of process is based on what situation a person has encountered. The situation affects people relatively, so their facework processes may vary.

Also, people who have different cultural backgrounds will perceive, think, and behave according to their context, so their face behaviors may be different. In Western culture, face is a two-person issue because Westerners assume that people are individual and rational and that every relationship with people is also linear (Lim, 2009). Face is affected by the relationship between these two people, and as a result, facework is interactional or situational in Western culture. In Asian cultures, face is related to social constructs and is processed in relation to people's relative position in the society (Chang & Holt, 1994; Lim, 2004, 2009; Morisaki & Gudykunst, 1994). Lim (2009) examines face among Koreans and identifies elements in Korean face that are based on holism because the facework of Koreans happens relatively in the same relationships. In Western culture, the face relationship supposes that each person in an interaction has an equal power distance, but relationships among Asians have different power distances that are dictated by social positions and even demographics (Lim, 2004; 2009). Face is public in both the East and West, but Koreans are more sensitive about this public face, because face is the demonstration of belonging to a group of exemplary and honorable human beings (Lim, 2004). For example, in a close dyad, Koreans are much more direct than Americans. If they are with a related third party

such as colleagues, Koreans become very gentle and polite. If the third party is not significantly connected to their life or is a total stranger, Koreans are carefree. This facework is a long-term relational issue, and it is important to Koreans to get it right (Lim, 2009).

Besides the way of thinking and communication style, interpersonal relationships differ by culture and country. Therefore, Korean immigrants have different notions of relationships as compared with people who are born and raised in the United States. Space, or proxemic, patterns are formed differently, and those different forms often conflict with each other (Hall, 1969). Hall (1969) studied people's interactions with space and proved that each culture has a different conceptualization of territoriality, distance, and space. For example, blank marginal space is regarded as a part of the entire space by the Japanese, but North Americans consider it to be a section of empty space. Mei and Wenhua (2013) also noted that Americans provide separate rooms for their children and consider privacy a major concern, but the Chinese do not seriously think about privacy or provide a separate room. The different recognitions of proxemics are also represented in virtual world-like blogs. In Jie et al.'s (2014) study of cultural influence on Web 2.0, they found that Americans maintain their distance to respect each other's privacy and copyrights, but Koreans are less concerned about those issues because Korean culture encourages closeness, and sharing is a general component of the culture.

2.3.2. Background of Korean Immigrants

The number of immigrants in the United States is growing and was approaching 20 million in 2020 (U.S. Census Bureau, 2020). Among Asian immigrants, Korean immigrants are the sixth-largest immigrant group, numbering approximately 1.7 million in 2020 (U.S. Census Bureau,

2020). According to several studies (Jeong, 2004; Kwon et al., 1997; Min, 1991), Korean immigrants remain strongly tied to their ethnic group due to the language barrier and culture shock from their lack of education and occupational skills in the United States. Also, the surrounding environments and information sources are very different from South Korea, so their information-searching behavior in seeking a living in the United States may have more obstacles than what these immigrants had in their home country (Jeong 2004; Lee, 2019; Kim, 2016). As ICTs and social media have developed, Korean immigrants have also been affected by using these resources. In fact, they may be the fastest-growing group of social media users in the United States because South Korea is a world leader in Internet penetration and has one of the world's fastest average Internet connection speed environments (Haight et al., 2014; Suh & Hsieh, 2019). According to Statista (2022a; 2020b) and *The Korean Herald* (2020), South Koreans are familiar with ICTs; 91.9% of them access the Internet daily, and 95.4% of them had a smartphone in 2020. They ranked third-highest among active social media users in the world.

Therefore, it is necessary to focus on what information needs and information-seeking behaviors Korean immigrants have on social media while also considering cultural factors. As discussed previously, cultural differences affect communication styles and worldviews so much that verbal and nonverbal communication have formed differently. Consequently, Korean and Americans have developed different ways of thinking, communication styles, and relationships with others that may affect their use of social media. Table 4 shows a brief summary of some differences between Koreans and Americans.

Table 4. Differences between Koreans and Americans in Communication with Others

	Born in Korea	Born in the United States
Way of thinking	<ul style="list-style-type: none"> • Holistic • Collectivist 	<ul style="list-style-type: none"> • Analytic • Individualistic
Relationship with others	<ul style="list-style-type: none"> • Close sharing, less privacy • Social reputation or construction 	<ul style="list-style-type: none"> • Keeping distance and privacy • Interactional or situational process

2.4. Social Media and Immigrants

ICT developments have helped users expand the boundaries of their social and information worlds. Particularly, social media, such as Facebook and Instagram, have become popular and continuously increased their users (Pew Research Center, 2021). Social media now have a huge role in the lives of many individuals, including youth and adults in the United States (Erdem, 2018). Social media are defined as “[f]orms of electronic communication (such as websites for social networking and microblogging) through which users create online communications to share information, ideas, personal messages, and other content (such as videos),” according to *Merriam-Webster* (2021). Kaplan and Haenlein (2010, p. 61) define the term as “a group of Internet-based application that builds on the ideological and technological foundation of Web 2.0, and that allow the creation and exchange of user-generated content.” In other words, the main purpose of social media is to maintain friendships or build new social connections via the Internet (Muscanell & Guadagno, 2012). Also, a social media user can connect to a wide range of individuals, who can often be useful sources of information (Fisher & Julien, 2009). Bayer et al. (2020) studied the various components that made up social media platforms, their impact on

individuals and society, and the broader ecological systems in which they operated. In the study, they define social media as a collection of internet-based platforms, tools, and applications that allow individuals and organizations to create, share, or exchange content, participate in social networking, and engage in other forms of social interaction and collaboration in a virtual environment. The authors highlight the interactive nature of social media, the ability to share user-generated content, and the potential for social connections and network formation as key features of social media platforms. They also note the role of algorithms and data-driven decision-making in shaping user experiences on social media. From the many definitions of social media, one thing is clear; users can use social media as an instrument for gathering and sharing information in their everyday lives. For example, users can answer a question in public or just browse around to acquire information by joining selected groups on social media.

Many scholars have specifically investigated how social media affects the acculturation process of immigrants or integration into new host countries (Erdem, 2018; Li & Tsai, 2015; Park et al., 2014). Because social media has a unique character in that it provides borderless cross-cultural exchanges in a virtual environment (Varma, 2011), most studies have focused on how social media can help the experience of immigrants during the process of acculturation or adaptation to a new country (Dayani, 2017; Park et al., 2014; Forbush & Foucault-Welles, 2016). There are many types of social media used in the world, and the changes also have affected immigrant societies. The next sections show the types of social media, how to find information on social media, and how social media has become important for immigrants.

2.4.1. Types of Social Media

Social media was launched in the early 2000s, and users have increased rapidly worldwide. According to the eBizMBA rank report (2021), Facebook had 2.2 billion unique monthly visitors, YouTube had 1.85 billion, Instagram had 1.1 billion, and Twitter had 375 million. The number of users and also social media usage time have increased dramatically. For example, Facebook was officially launched in 2005, but it had 900 million unique monthly visitors by 2015, and now it has 2.2 billion (eBizMBA, 2021). According to Cloudflare (2021), a web traffic analytics site, there are four social media sites on the list of top web traffic in the world: TikTok (no. 1), Facebook (no. 3), YouTube (no. 8), and Twitter (no. 9). These social media applications or sites offer users the opportunity to interact with others in different ways. Different types of social media provide different ways of interacting with others. For example, TikTok and YouTube allow users to share and find video-oriented information, but Facebook and Twitter provide communications based on photos or just words (Xie & Stevenson, 2014). In addition, Reddit provides a space where users can share and post all different types of information in subreddits that permit users to view particular topics, such as cars and health (Stevenson, 2017). Table 5 shows definitions of different types of social media.

Table 5. Definitions of Different Types of Social Media (Xie & Stevenson, 2014, p. 504)

Types	Definitions	Examples
Blog	Allows a user to share thoughts and opinions on subjects in a diary-like fashion in a series of posts. Creates discussions or an informational site published online and consisting of discrete entries or “posts.”	Blog
Microblog	Allows users to communicate with a handle or username that the user creates, and to write short messages, typically of 140 characters, that are sent to the user’s followers.	Twitter

Photo sharing	An online image or video hosting site that allows users to share, comment, and connect through posted images.	Facebook; Instagram; Flickr; Pinterest; Twitter
Podcast	A multimedia digital file that is stored on the Internet and is available to download, similar to a radio broadcast that is available freely online.	Podcast
RSS feeds	Rich Site Summary or Really Simple Syndication is a frequently updated web feed that indicates news, events, and blog entries that a user can subscribe to and follow. RSS takes current headlines from different websites and pushes those headlines to the user's computer for quick scanning.	RSS feeds
Social networking service	An online platform for users to communicate and connect via interests, backgrounds, and activities, which are part of a large social network.	Facebook; Instagram; Twitter; Reddit
Video	Content distribution of videos, typically available for free to the public.	YouTube; TikTok
Wiki	Allow users to create and edit web page content online. Hyperlinks and crosslinks connect between pages. Users are allowed and encouraged to edit wikis.	Wikipedia

There have been many studies about how to use social media and which social media platforms have been selected by Korean women or students, but little research is concerned with immigrant males' or long-term immigrants' information seeking and information needs (Kim et al., 2015; Suh & Hsieh, 2019). Therefore, it is worth investigating what kind of social media is used among Korean immigrants generally, including long-term immigrants and male immigrants. For this study, social media platforms based in South Korea need to be included because Korean immigrants may use different social media platforms based on Korean language and culture. Unfortunately, no studies have investigated what kind of social media Korean immigrants use, so this study used a survey from South Korea regarding the most frequently used social media in

that country. Table 6 shows the Korean social media most frequently used by Koreans, including social media from other countries.

Table 6. Most Frequently Used Social Media in South Korea in 2020 (*Expat Guide Korea*, 2020; Statista, 2020)

Types	Examples
Blogs	Naver Blog, Daum Cafe
Microblogs	KakaoStory, Twitter
Photo sharing	Facebook, KakaoStory, Naver Band
Podcasts	Podcasts
RSS feeds	RSS feeds
Social networking services	Facebook, Instagram
Video	YouTube; TikTok
Wikis	Namuwiki; Wikipedia

2.4.2. Finding Information on Social Media and Related Functions

On social media, there are several ways to find information. For example, people can find information by clicking hashtags (Potnis & Tahamtan, 2021), or people can receive news from any organization or friends and family that they subscribed to or followed (Fletch & Nielsen, 2018; Singh & Gill, 2015).

Firstly, following something or someone is one of the main ways to use some social platforms. Fletcher & Nielsen (2018) conducted a comparative analysis of survey data from six countries (Denmark, Finland, France, Germany, Italy, and the United Kingdom) to explore patterns of incidental news exposure on social media platforms, including Facebook, Twitter, and WhatsApp. They found that following news organizations and journalists on social media was one of the main ways that people intentionally seek out news on these platforms. Also, their

findings suggested that following news organizations and journalists on social media could provide an important source of news for some users, particularly for younger and more educated individuals. However, they noted that the extent of news exposure through following news organizations and journalists varied by platform and by country, and that this type of intentional exposure to news was not necessarily the norm for all social media users. Also, users liked to receive information from their friends. In addition, Singh and Gill (2015) conducted a survey of 1,000 participants from six universities in North India, collecting data on their SNS usage habits, motivations, and perceptions. The findings show that the majority of participants used SNSs for social purposes, such as staying in touch with friends and family, sharing personal experiences, and entertainment. Users particularly tended to add individuals they already knew in real life, such as friends and family members.

Secondly, users can also join online communities that align with their interests, as social media platforms often have groups or communities focused on specific topics. This can be an effective way to access information and connect with others who share similar interests. For example, Shaffer-Hudkins et al. (2014) examined the use of social media among individuals with diabetes. The study explored how individuals with diabetes used social media to find information and support related to their condition. As a result, the study found that online communities could play a particularly important role in providing support and information to individuals with diabetes, as they allow individuals to connect with others who share similar experiences and challenges. Xie et al. (2021) examine how mothers exchange parenting-related information in online communities. The study employs a meta-synthesis approach to analyze and synthesize findings from previous research studies on the topic. The authors found that mothers use online

communities to exchange information and advice related to parenting. Therefore, online communities provide a platform for mothers to connect with others who share similar experiences and challenges, and to seek and offer advice and support.

Thirdly, social media platforms enable users to search for content using keywords or hashtags, which can be an effective way to locate information on specific topics by increasing the relevance of results. Boyd and Ellison (2007) provided a comprehensive overview of the search function on SNSs. They emphasized the significance of the search feature for users to find and connect with others by searching for names, email addresses, or additional profile details when they searched to find someone's information. Privacy controls were noted as crucial for search results, as some users may prefer not to have their profiles searchable by others. They observed that SNS search functions are constantly evolving to accommodate users' needs and preferences, and that personalized search results could impact user behavior on social media platforms. Also, users may use hashtag search for finding information or filtering function. For example, Potnis and Tahamtan (2021) investigated the role of hashtags as a gatekeeping mechanism for information on social media. By analyzing data from Twitter, the study identified the most commonly used hashtags for categorizing and filtering information related to specific topics. The researchers found that hashtags play a crucial role in determining how information is shared and accessed on social media. These hashtags serve to categorize and organize information, simplifying the process for users to find and share content related to particular topics. Additionally, hashtags function as a gatekeeping mechanism, enabling users to filter out irrelevant or unwanted content while prioritizing information deemed most relevant or useful to them.

Fourthly, users may browse to find the information they want. This browsing may be helped by algorithm functions on social media. Boyd and Ellison (2007) state that personalized search results are based on algorithms on SNSs. They discuss how search algorithms on SNSs might prioritize specific results, such as those from connected users or more popular profiles. Singh and Gill (2015) also found that users tend to browse through their friends' profiles and add them to their friends' list, thus expanding their network of connections on these platforms.

Alternatively, users may use multiple methods or functions to find information on social media. Fyfield et al. (2021) conducted a study to explore how teachers navigate a large volume of educational videos on YouTube, and how the YouTube algorithm impacts their search strategies. Through interviews with teachers, the study identified various approaches teachers use to find relevant videos, including searching by keywords, browsing recommended videos, and exploring channels and playlists. Furthermore, teachers reported that they heavily rely on the YouTube algorithm to surface high-quality and relevant content during their searches. Similarly, users employed different methods to find information based on their degree of closeness with someone. For instance, Lampe et al. (2006) found that Facebook users tend to engage in “searching” for people with whom they have an offline connection, rather than “browsing” for complete strangers to meet.

While there has been a significant amount of research on how immigrants find information using social media, the majority of studies have concentrated on why they use social media or how they receive help through it (Lin & Lu, 2011; Osatuyi, 2013; Whiting & Williams, 2013).

Unfortunately, very few studies have examined the type of social media that immigrants use, how immigrants select social media for their information needs, and how immigrants use these social media. For instance, Dekker et al. (2018) investigated the social media use of Syrian asylum migrants, but the authors' focus was on the information needs of these migrants and not on how they used social media to find information. Thus, it is important to shift attention to *how* immigrants use social media to obtain information rather than *why* they use it.

2.4.3. Social Media and Immigrants' Information Seeking

2.4.3.1. Social Media as Ethnic Media of Immigrants

The information environment has changed rapidly since the Internet was introduced and telecommunication networks were optimized. In the past, social gathering places, such as churches and community centers, were the major information social resources, and newspapers and televisions were the main technological channels of information. However, technological development has allowed people to find and share information via the Internet, especially from mobile and social media (Haight et al., 2014). After the global diffusion of the Internet, information and communication technologies have become an important information resource for immigrants (Caidi & MacDonald, 2008; Caidi et al., 2010; Chen, 2010; Haight et al., 2014). Chen (2010) argues that mass media, such as television, provides a good resource to learn about other cultures and reduces uncertainties over cultural differences. In addition, the Internet has become a powerful and convenient tool for helping the intercultural adaptation of immigrants. It also lends a huge advantage to newcomer immigrants, and mobile devices have greatly expanded the accessibility of the Internet, especially for international students and immigrant workers (Baron et al., 2014; Lingel, 2011; Mao, 2015). For example, one interview subject in Lingel's

study (2011) referred to his iPad as his third hand because it provided information such as time, radio, and maps via the Internet.

In this circumstance, some researchers have studied immigrants' information needs and what source immigrants use for solving their information needs (Caidi et al., 2010; Esses et al., 2012; Mason & Lamain, 2007). In the past, ethnic newspapers and television were the main technological channels of information for immigrants if immigrants had access to those ethnic media, whether those were located in their home country or new country (Caidi & MacDonald, 2008; Moon & Park, 2007). When there were no ethnic media, or there was limited access to it, immigrant community centers such as churches provided information through pastors or members (Jeong, 2004). However, technological developments such as the Internet provided more convenient information resources, like websites or social media based on their language or ethnic background, for meeting the information needs of immigrants than in the past (Fogt & Sandvik, 2008; Haight et al., 2014; Lin & Song, 2006; Mehra & Papajohn, 2007). For example, Mehra and Papajohn (2007) found that international teaching assistants use the Internet for connecting the global, which is mainly their home country, and the local, meaning the country they are currently living in, in their everyday lives because these immigrants have two purposes—settlement in the new country and connection to the home country—and the Internet supported both purposes. Lin and Song (2006) concluded that ICTs supported easier access to ethnic media and even local news sources so that immigrants could keep track of their home country's news and also learn local information about their host countries.

Like other ICTs, social media platforms have been researched, and those studies found that social media helps immigrants to live in a host country (Khoir et al., 2014; Kim Cho, 2012; Oh & Syn, 2015; Sin & Kim, 2013). According to Muscanell and Guadagno (2012), social media helps users to keep in touch with their friends or make new virtual friends. Social media has two conflicting characteristics: social media is a place for personal information exchange within a closed relationship, but it can also be a place without privacy (Sin & Kim, 2013). This means that social media users only share their very private information with close friends, and they also share and find any information without privacy concerns from other social media users. For example, Quirke (2012) investigated young Afghan immigrants' information-seeking behaviors, and found that they use mobile phones and Facebook to maintain relationships with family and friends; they also use videos from YouTube as learning resources. Whatever the characteristics of social media are, it is obvious that social media have become one of the most useful information resources for immigrants, and have had a positive impact on adjustment in new countries (Khoir et al., 2014; Kim Cho, 2012; Sin & Kim, 2013). According to the research on social media users, social media help international students' relocation (Sin & Kim, 2013; Zhang & Goodson, 2011) and also provide advanced acquisition of useful information for making a living (Kim Cho, 2012; Oh et al., 2013; Oh & Syn, 2015). For immigrant workers, social media and networking sites such as LinkedIn have become one of the best methods for maintaining their jobs, building new social connections, and discovering new job opportunities (Baron et al., 2014; Vaiman et al., 2015). Therefore, social media has enhanced immigrants' information access and participation in local society in their host countries and also allowed immigrants to connect with each other in their host countries (Andrade & Doolin, 2016; Suh & Hsieh, 2019).

2.4.3.2. Social Media and Acculturation

Many researchers have studied the impact of social media on immigrants. They have focused on how social media affects the acculturation process of immigrants. According to Berry (2008), immigrants go through the acculturation process when they start to live in a new country. Berry (2008) takes the term “acculturation” from Redfield, Linton, and Herskovits (1936), who defined it as follows: “acculturation comprehends those phenomena which result when groups of individuals having different cultures come into continuous first-hand contact, with subsequent changes in the original culture patterns of either or both groups” (p. 149). In other words, acculturation occurs when two different cultures coexist simultaneously. Therefore, immigrants are one of the leading groups experiencing the acculturation process now. In the acculturation process, an immigrant will modify their cultural aspect or way of thinking and communication when they adapt to a new country or borrow a behavior from another culture that is different from their own (Dayani, 2017). Kim (2016) emphasizes the role of communication in acculturation because an immigrant who has better communication skills in a new culture tends to be more acculturated in the new country. In acculturation, immigrants face unknown problems that they have never experienced before or face situations without solutions due to many barriers such as language (Allen et al., 2014; Dayani, 2017; Kim, 2016). Berry (1997) shows that the acculturation process is affected by the context of two cultures (mother country and host country) and proposes a two-dimensional acculturation model. In his initial study (1997) and a later study with Sabatier (2011), Berry notes that acculturation experiences are voluntary, immigrants do not need to abandon one of the cultures, and the two cultural processes can occur independently. Berry (1997; 2001) suggests that two-dimensional acculturation models have two axes: the x-axis is the maintenance of identity and characteristics from the home country, and the y-axis is

relationships with the host society. With these two axes, four types of acculturation attitudes of individuals are represented: assimilation, integration, separation, and marginalization (Figure 1).

Figure 1. Berry’s Acculturation Model

		Is it considered to be of value to maintain one’s identity and characteristics?	
		No	Yes
Is it considered to be of value to maintain relationships with larger society?	Yes	Assimilation	Integration
	No	Marginalization	Separation

Assimilation is defined as when “individuals do not wish to maintain their cultural identity and seek daily interaction with other cultures.” Integration is “[w]hen there is an interest in both maintaining one’s original culture, while in daily interactions with other groups.” Separation is “when individuals place a value on holding on to their original culture, and at the same time wish to avoid interaction with others.” Finally, marginalization is “when there is little possibility or interest in cultural maintenance, and little interest in having relations with others” (Berry, 1997, p. 9). Based on Berry’s model, many researchers have studied how acculturation level is affected by different factors (De Leersnyder et al., 2011; Allen et al., 2014; Doucerain et al., 2015; Yoon et al., 2012). De Leersnyder et al. (2011) examined Korean immigrants in the United States and Turkish immigrants in Belgium and found that exposure to the host country’s culture and engagement with it is essential to change the degree of acculturation. Also, Yoon et al. (2012)

show that well-established social connections in both mainstream communities and ethnic communities in a host country affect acculturation on immigrants' subjective well-being.

Social media has become one of the most popular communication tools in the digital world, and researchers have been interested in studying social media because it provides real-time information delivery and sharing information (Hamid et al., 2016; Obar & Wildman, 2015).

Researchers have particularly focused on how social media affects the process of acculturation among immigrants (Forbush & Foucault-Welles; 2016; Park et al., 2014). For example, Park et al. (2014) investigated Korean and Chinese immigrants' acculturation processes and how the social media they use affects the process of acculturation in both groups. They found that immigrants who use Facebook have a positive acculturation process. Besides the impact on the acculturation process, previous studies revealed that social media helps immigrants maintain contact with friends or family in their home country (Dekker & Engbersen, 2014; Pearce et al., 2013). Dekker and Engbersen (2014) note that immigrants use social media to maintain their relationships with friends and family members through rich-content and synchronous communications in their home country. Besides helping immigrants connect with their home country, social media provides a place to build social networks in the host country and also receive valuable information about the host country from others who are not close to them (Dekker & Engbersen, 2014; Li & Tsai, 2015; Mao & Qian, 2015). For example, Mao and Qian (2015) researched how Facebook affects the acculturation process of Chinese professionals, and the results showed that professionals use Facebook as a useful learning and knowledge source for the host country. In addition, Li (2012) investigated Chinese international students' social media use in the United States and compared their usage of Facebook and Renren. Even though

participants lived in the United States, they were likely to use both social media platforms because they could interact with their friends in both countries, but many participants preferred to find information on Renren rather than Facebook. Li and Tsai (2015) researched Hispanic immigrants and how they use social media, and the results indicated that Hispanic immigrants who use English-based social media have better orientations toward U.S. culture and society. Based on previous studies, it is obvious that social media has an important role in the acculturation process, and it can accelerate or slow down that process.

2.4.3.3. Social Media Use and Immigrants' Information Needs and Seeking

Meeting information needs and efficient information-seeking behavior are very important for adapting to a new country because these activities lead the way in learning about the host country and adopting the host society (Kim, 2016). Prior research about reasons for using social media shows that information seeking is one of the main reasons to do so. Many researchers have investigated the reasons for using social media, and the reasons were diverse, including social interaction, information seeking, expression of opinion, and information sharing (Lin & Lu, 2011; Osatuyi, 2013; Whiting & Williams, 2013). In particular, Whiting and Williams (2013) categorized common themes in social media usage by analyzing prior works (social interaction, information seeking, passing the time, entertainment, relaxation, communicatory utility, and convenience utility) and found that social interaction and information seeking were the top two themes mentioned by participants, followed by passing the time, entertainment, and relaxation.

In addition, many researchers have also focused on how social media helps immigrants in their host country because of social media's strengths, such as helping users to keep in touch with

their friends or make new virtual social friends without geographical limitations (Muscanell & Guadagno, 2012) and providing information and sharing it in real time (Hamid et al., 2016). Based on these strengths, researchers investigated how social media plays a role as an information resource during the settlement and adaptation process and what kinds of information they found from social media (Kim Cho, 2012; Oh et al., 2013; Oh & Syn, 2015; Sin & Kim, 2013; Zhang & Goodson, 2011). In particular, Sin and Kim (2013) note that social media is considered to have a positive impact on immigrants' adjustment in the new country because immigrant users can find information in both languages. They studied how international students use social media and found that it can help international students' adaptation to a new country because social media can provide information daily, and students can acquire valuable information, including finance, health, and news, from social media. Dekker et al. (2018) studied Syrian asylum migrants' social media use and found that they prefer information on social media based on their personal experience, and their information needs on social media are mainly concentrated on migration information and traveling routes to destination countries. In addition, there is much research about how social media is used for acquiring health information among immigrants, especially Korean women. The results have shown that social media is the most frequently visited and trusted information resource, and Korean women considered information from social media useful (Kim Cho, 2012; Oh et al., 2013; Oh & Syn, 2015).

However, the strength of social media also negatively affects adapting to the new country and finding accurate information. The one strength of social media is that it has no geographical limitations. Prior research reveals that social media is a communication tool that helps a user communicate with a tremendous number of individuals all over the world virtually (Whiting &

Williams, 2013; Williams et al., 2012). In most research, social media is considered a positive tool for cross-cultural adjustment, but it is hard to say whether social media can be helpful to everyone working to adapt to a new society and acquire accurate information. Researchers have found that increasing access to ethnic media has influenced immigrants to keep their ethnic identities (Bucholtz, 2019; Kim Cho, 2012; Martin & Rizvi, 2014; Wenjing, 2005). In particular, Bucholtz (2019) and Martin and Rizvi (2014) found that the usage of ethnic social media based on immigrants' mother country or language can slow down the speed of adaptation to a host country and also decrease the chance to meet host-country residents because the immigrants may receive less information about local society but more information from their society of origin.

In sum, whatever the characters of social media are and whomever its main users may be, it is obvious that social media has become one of the most useful information resources for users, including immigrants (Dekker et al., 2014; Oh & Syn, 2015; Sin & Kim, 2013). Although there has been much research on social media use among immigrants, most studies have focused on why immigrants use social media or how they receive help by using social media.

Unfortunately, few studies have considered what kind of social media immigrants use and also how immigrants select social media for their information needs. For example, Dekker et al. (2018) studied Syrian asylum migrants' social media use, but they focused on what information needs Syrian asylum migrants were trying to meet by using social media. Therefore, it is meaningful to investigate what factors affect immigrants' selection of social media, how they use social media for meeting their information needs, and what factors are associated with social media usage for finding information.

2.5. Factors Affecting Korean Immigrants' Information Needs, and Selection and Usage of Social Media

Immigrants have various information needs for daily living, and they use information resources, such as social media, to meet their information needs. Many scholars have focused on diverse ways of finding information for various information needs of immigrants (Alam & Imran, 2015; Caidi et al., 2010; Martzoukou & Burnett, 2018; Shoham and Strauss, 2008) and also researched how they use social media in a host country (Dayani, 2017; Forbush & Foucault-Welles, 2016; Li & Tsai, 2015; Park, et al., 2014). The information needs and selection and use of social media by immigrants may be affected by many factors, including age, gender, information-searching skills, and cultural differences. Therefore, it is worth knowing what factors have been identified by previous studies and how those factors affect Korean immigrants' information seeking and selection and use of social media.

2.5.1. Demographic Data

Demographic factors are essential for understanding immigrants' information-searching behavior and social media usage (Caidi et al., 2010; Haight et al., 2014; Machet & Govender, 2012). According to Machet and Govender (2012), different demographic factors—age, gender, ethnic group, and income level—affect immigrants' information needs and selection of information resources. For example, Haight et al. (2014) expanded the boundary of demographic factors—including gender and education—and investigated their impact on access to the Internet, level of online activity, and social networking. They found that multiple factors affect the groups of

recent immigrants, earlier immigrants, and Canadian-born residents. Therefore, looking at demographic differences is the starting point of this research.

2.5.1.1. Age

Age is a well-known factor in studies of information seeking and immigrants. The Pew Research Center (2021) has investigated and revealed that there is an age difference in selecting social media. In the study, adults under 30 preferred to use Instagram, Snapchat, and TikTok, but Facebook and YouTube are the most popular social media platforms for those over 40. Mao (2015) investigated Chinese immigrants' information-seeking patterns in Canada, testing relationships between information seeking and demographics, such as gender and age, and found that gender had less correlation than other factors. However, age and years of residence in Canada had a significant negative correlation in the category of getting information from Chinese websites and social media.

2.5.1.2. Gender

Gender is also a main factor in studies of information seeking and immigrants. For example, according to research about social media users, females use social media more than males (Madden & Zickuhr, 2011; Moore & McElroy, 2012). Furthermore, gender differences lead to different purposes for social media usage. For example, males' purposes are more likely to be task-oriented, and females' reasons are more likely to be maintaining an existing relationship (Lin & Lu, 2011; Muscanell & Guadagno, 2012). However, there are contradictory results as well. Comparing previous studies, when Mao (2015) investigated Chinese immigrants' information-seeking patterns in Canada and tested relationships between information seeking and

demographics, such as gender and age, it was found that gender had less correlation with information seeking.

2.5.1.3. Education

Education level is also an important factor in determining information needs and information-seeking behaviors. Haight et al. (2014) researched the impact of demographic factors on access to the Internet, online activity, and social media, and found that education level affected social media usage. For example, people with high school degrees or lower have a lower percentage of adoption than any other education group. Similarly, Oh et al. (2012) investigated health information seeking among Korean immigrants in the United States and revealed that less educated Korean immigrants were more likely to seek health information via Korean ethnic media, whereas more highly educated Korean immigrants were more likely to find health information online, including via U.S. media.

2.5.1.4. Income Level

Income level is another key factor that creates differences among immigrants or between host-country residents and immigrants. Machet and Govender (2012) state that low income and low self-esteem are related, and income level, like other demographic differences such as age, plays an important role in determining information needs and information sources of new immigrants to New Zealand. In particular, Haight et al. (2014) found that more recent immigrants have lower Internet access rates than people born in Canada, but recent immigrants with more income and online access have more online activity than Canadian-born residents.

2.5.1.5. Marital and Parental Status

Some studies about immigrant women have found marital and parental status to be critical demographic factors (Kim Cho, 2012; Lee, 2019; Moon & Park, 2007). Marital status can be a key factor in creating differences among immigrants and between host-country residents and immigrants (Lee, 2019). For example, Kim Cho (2012) states that Korean married immigrant women consume Korean media more frequently than U.S. media. Also, previous studies found that parental status affects immigrants' information-seeking behavior, especially among women (Kim Cho, 2012; Lee, 2019; Moon et al., 2019). For example, Lee (2019) found that Korean immigrant married mothers seek children's health information on the Internet more than American mothers born in and currently living in the United States.

2.5.2. ICT experience

2.5.2.1. Technology Usage Level

Information and communication technology provides huge advantages in finding information for immigrants (Caidi et al., 2010; Baron et al., 2014). In many studies, information and communication technology are generally considered positive tools for cross-cultural adjustment, but it is hard to say whether information and communication technology can be helpful to adapt to a new society for everyone in every case. Some authors observe that digital devices and services are not perfect solutions for every information-seeking immigrant (Caidi et al., 2010; Chen, 2010; Haight et al., 2014; Machet & Govender, 2012; Mao, 2015; Thomas, 2008).

According to previous research, technology usage levels differ according to demographic factors and personal acceptance of new technology. Firstly, different demographics, such as age and language, cause big differences between younger and older immigrants or recent immigrants and

earlier immigrants (Haight et al., 2014; Machet & Govender, 2012; Mao, 2015). Secondly, technology acceptance levels also create a huge gap between young and old immigrants; a similar demographic gap is created by occupation (Haight et al., 2014; Mao, 2015). Thirdly, income level also affects the ability to access information resources, as low-income immigrants have fewer opportunities to access digital devices and learn how to access information resources in residential communities (Caidi et al., 2010; Haight et al., 2014; Mao, 2015; Thomas, 2008). Lastly, information and communication technology and social media can cause slower adaptation and isolation in foreign countries because immigrant users may prefer to access their home countries' websites, so their information-seeking behaviors are not totally related to their settlements (Caidi et al., 2010; Chen, 2010). However, other results also indicate that social media helps to adapt to new countries (Erdem, 2018; Zhang & Goodson, 2011). For example, Zhang and Goodson (2011) investigated international students' adjustment in the United States and found that establishing social networks positively impacts cross-cultural adjustment.

2.4.2.2. Satisfaction and Previous Experience with ICT

Satisfaction describes users' reactions to the system's performance in achieving their goal (Jeng, 2006). Satisfaction has been used as a usability criterion and also as one of the top variables for evaluating a user's overall perception of online systems. However, it has also been considered a dependent variable that is affected by many other factors, such as ease of use (Jabeen et al., 2017; Liu and Luo, 2011; Thong & Yap, 1996). For example, Thong and Yap (1996) state that user satisfaction would be increased if an information system meets users' requirements, but user satisfaction would be decreased if not. In other words, satisfaction can be considered an overarching variable that reflects users' overall experience of an online system (Al-Maskari and

Sanderson, 2010; Joo et al., 2011; Abdel-Maksoud, 2018). Al-Maskari and Sanderson (2010) found that satisfaction was a subject variable influenced by other factors such as effectiveness. In addition, Joo et al. (2010) stress that effectiveness and efficiency are highly correlated with satisfaction when students use a digital library at a university library. Also, Abdel-Maksoud (2018) states that students' perceptions of ease of use are significantly related to satisfaction with online e-learning systems.

In studying users, Kuhlthau (2004) and Wu (2011) both state that emotions like anxiety are a key factor in information-seeking behavior. Immigrants often have anxiety over finding information and have even more desire for a fast and correct answer (Caidi et al., 2010; Showail et al., 2013). As a result, Shoham and Strauss (2008) observe that satisfaction with meeting information needs is one of the key factors in a settlement in a new country. Better satisfaction leads immigrants to be more active, but low satisfaction causes immigrants to be isolated (Al-Esia & Skok, 2015; Caidi et al., 2010; Froese et al., 2012; Mao, 2015). Therefore, previous experience or emotions, including satisfaction, are important influences on immigrants' information-seeking behavior (Caidi et al., 2010; Fisher et al., 2004a). For example, Fisher et al. (2004a) studied immigrants in the New York Public Library and found that emotional security is required to access libraries and use them continuously. Immigrant workers' information seeking and successful settlement also are influenced by emotional support from communities or organizations meeting information needs and helping with adjustments (Showail et al., 2013; Vaiman et al., 2015). Udwan et al. (2020) also found that the well-being of refugees and immigrants who were satisfied with social media in a new country was improved by reducing isolation and stress and increasing social networking. However, too much information on social media may reduce the satisfaction of

immigrants and cause avoidance or fatigue toward using social media (Kainat et al., 2021; Ndumu, 2020).

2.5.3. Culture

2.5.3.1. Language Proficiency

Most studies about the information-seeking behaviors of immigrants indicate that language is the key obstacle in meeting information needs and finding reliable information resources (Baron et al., 2014; Caidi et al., 2010; Fisher et al., 2004b; Jeong, 2004; Khoir et al., 2015; Mao, 2015; Silvio, 2006). Froese et al. (2012, p. 334) observe that “insufficient language proficiency can consequently act as a natural barrier to intercultural communication and information flows in the workplace and have a negative influence on immigrant workers’ work-related adjustment.”

Showail et al. (2013) also observe that language is one of the factors that cause immigrant workers to feel they are outsiders and that there are barriers to becoming an active resident of a foreign country. It is the same for Asian immigrant groups. Jeong (2004) found that language barriers lead Korean graduate students to seek out strongly ethnic places such as Korean immigrant churches. Ahmad et al. (2004) studied Chinese immigrant women’s health information-seeking and found that language difficulties prevent them from accessing English-language health information. In addition, if immigrants feel that their language proficiency is not sufficiently advanced, even though they can understand English, they still prefer information resources in their mother language (Baron et al., 2014; Fisher et al., 2004a). Higher language proficiencies provide wider and more accurate information resources in the immigrants’ resident countries, including information and communication technology access and skills (Baron et al., 2014).

2.5.3.2. Cultural Barriers and Personal Adaptation

Cultural differences affect communication styles and worldviews, so much so that verbal and nonverbal communication have formed differently in different groups. Consequently, Koreans and Americans have developed different ways of thinking, communication styles, relationships with others, linguistic approaches, and facework strategies. These cultural and communication differences are critical factors because they can cause barriers to access in information seeking. Several researchers who studied immigrants have found that cultural and language differences can be an obstacle to finding information about living in the host country (Caidi et al., 2010; Froese et al., 2012; Showail et al., 2013; Todd & Hoffman-Goetz, 2011). Savolainen (2016) explains that cultural barriers, including social stigmas or cultural taboos, can hinder, restrict, or delay information seeking, which can lead to negative affective reactions such as frustration. Consequently, those cultural and communicational disadvantages force immigrants to engage in different information-seeking behaviors, such as concealing attempts to find information or keeping their information-seeking boundaries restricted to familiar resources such as their ethnic community (Fisher et al., 2004a; Jeong, 2004; Savolainen, 2016). Thus, cultural barriers are one of the factors that immigrants consider when choosing information resources and seeking strategies (Mao, 2015; Mehra & Papajohn, 2007; Todd & Hoffman-Goetz, 2011). In addition, cultural barriers such as respect for authorities (Mao, 2015) and preference for face-to-face communication (Todd & Hoffman-Goetz, 2011) affect the information-seeking behaviors of immigrants.

Also, personal adaptation to the host country's environment can lead to unique information needs and uses (Caidi et al., 2010). Caidi et al. (2010) explain that different personal cognitive strategies and primary cultural backgrounds have some influence on immigrants' information-seeking behaviors. A study about immigrant workers in Saudi Arabia (Showail et al., 2013) also found that culture shock problems lead to ambiguity and that strong cultural differences eventually cause serious difficulty for these workers in seeking help and information. Some researchers (Al-Esia & Skok, 2015; Gany et al., 2006; Froese et al., 2012; Todd & Hoffman-Goetz, 2011) have found that personal adaptation from cultural differences influences negative intercultural communication on cross-cultural adjustment and also information-seeking behavior. For example, Todd and Hoffman-Goetz (2011) found that Asians preferred experience-inductive approaches to seeking cancer information compared to European-American patients, who tended toward a fact-inductive approach, whereas immigrant Chinese women preferred face-to-face information from doctors and had less trust in web-based resources. Therefore, personal adaptation is an obvious factor in understanding the information-seeking behaviors of immigrants. However, it is not necessarily a permanent effect because the level of personal adaptation can be reduced or expanded by personal experience and induction into the host countries' cultures (Al-Esia & Skok, 2015; Chen, 2010; Froese et al., 2012). If immigrants can manage good interactions with their host country's culture and find learning opportunities, those immigrant workers tend to actively find information. In contrast, immigrant workers who have more introverted personalities, or those to whom the host country's culture is closed, tend to avoid searching for information and prefer to remain in isolation (Al-Esia & Skok, 2015; Froese et al., 2012). Between individual cases, therefore, there can be different results of immigrant

information-seeking behaviors, so a comparison and defined personal history and background are required.

2.5.3.3. Status of Immigrants

According to the U.S. Census report of 2010, the Asian population has continued to increase. The population of Korean immigrants was over 1.4 million in 2000 (Hoeffel et al., 2012) and reached 19.9 million in 2020 (U.S. Census Bureau, 2020). There are many types of visas, and every immigration status can lead to different information needs and information-seeking behaviors. For example, international students' information seeking is mostly related to academic improvement (Bordonaro, 2006; Yi, 2007), and foreign workers' information seeking is mainly connected to job security (Showail et al., 2013). If they have families, their information needs can be related to housing (Shoham and Strauss, 2008). Within a group, there can also be another type of status. For example, there are three types of foreign workers—expatriates, inpatriates, and self-initiated foreign workers (Showail et al., 2013)—and those different types of working statuses can also influence information seeking. For example, inpatriates and expatriates plan to return to their home country, so their information seeking is rarely connected to long-term residence. However, self-initiated foreign workers usually do not have any support from their home country, and their intention is to live in the foreign country. As a result, their information seeking is related to long-term residential information (Showail et al., 2013). At the same time, those inpatriates and expatriates may try to change their status to permanent residence due to their personal desire (Seol, 2012). Therefore, it is difficult to identify all variables in immigrants' status and corresponding information needs and information seeking (Caidi et al.,

2010). Also, some immigrants have undocumented statuses or different income levels and, therefore, different information-seeking behaviors (Baron et al., 2014).

In sum, many factors affect the information seeking of immigrants. Table 7 summarizes the factors that influence the information seeking of immigrants and usage of social media as defined by previous studies.

Table 7. Factors that Influence Immigrants’ Information Seeking and Social Media Use

Factors		Summary
Demographic data		<ul style="list-style-type: none"> • Age • Gender • Education level • Income level • Marital status • Parental status
ICT experience	Technology usage level	<ul style="list-style-type: none"> • Regarded as huge advantage in finding information • Affected by demographic factors • Possibility of becoming negative tool for adaptation
	Previous experience and satisfaction	<ul style="list-style-type: none"> • Better satisfaction leads immigrants to be more active • Low satisfaction causes immigrants to be isolated
Culture	Language proficiency	<ul style="list-style-type: none"> • Key obstacle • Natural barrier to intercultural communication and information flow
	Immigration status	<ul style="list-style-type: none"> • Year of residence in the host country • Type of immigrant • Job types

Barriers due to cultural differences and personal adaptation	<ul style="list-style-type: none"> • Cultural taboos • Preferences for communication style • Respect for authority or trust in media • Level of cultural shock • Level of adaptation
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2.6. Research Questions and Hypotheses

In order to comprehend any possible relationship between the immigrants’ information needs and the selection and use of social media, the broader research question is as follows: “In the context of everyday life information seeking, how can Korean immigrants meet their information needs through social media? And what factors influence the selection and use of social media?” To find the answer, the following are the research questions and hypotheses of this study.

RQ1. What are the top types of information needs on social media that Korean immigrants fulfill during their everyday lives in the United States?

RQ2. What types of social media do Korean immigrants most frequently use during their everyday lives in the United States for different types of information needs?

RQ3. Are there any relationships between the types of social media Korean immigrants select and demographic factors, ICT experience level, cultural factors, and information needs?

H₀₃: There are no significant relationships between selected social media among Korean immigrants and various variables including demographic factors, ICT experience level, cultural factors, and information needs.

RQ4. What factors influence the selection of types of social media among Korean immigrants?

RQ5. How do Korean immigrants use social media during their everyday lives in the United States?

RQ6. What factors influence Korean immigrants' social media use for information seeking in their everyday lives in the United States?

2.7. Summary of Literature Review

Immigrants' information needs and information-seeking behaviors are very complex and have significantly different elements. Many theories and models are applicable to researching the information needs and information-seeking behaviors of immigrants. However, a few theories and models cannot explain every factor and phenomenon because immigrants have many unique factors such as different statuses in the same demographic or communication problems related to language or cultural differences. Therefore, the five theories mentioned above could be applied with some limitations, but will still cover a broad range of research. For example, Dervin's sense-making theory and Chatman's small world theory form a theoretical foundation, Savolainen's everyday life information-seeking behavior theory defines information needs and information-seeking behaviors in the everyday life, and Xie's planned-situational interactive IR model provides a basic model of the information-seeking behaviors of immigrants that is related to goal, task, and role. Lastly, Fisher's information ground theory identifies existing information resources and environments. Beyond the mixed application of these theories and models,

considering various additional factors will also be required to handle the diverse demographics that can influence immigrants' information-seeking behaviors.

Identification of information needs and information-seeking behaviors is important, but understanding how information flows and is used among immigrants is also valuable because their information behavior heavily relies on closed networks (Chatman, 2000; Fisher et al., 2004a, 2004b; Jeong, 2004; Lingel, 2011; Mao, 2015). Immigrants' demographic differences and different use levels of ICTs affect their information-seeking abilities and strategies. Moreover, the challenge of finding information despite cultural differences also affects immigrants so that they may use the same information resources as host-country residents but use them differently due to smaller social networks, communication problems, or culture shock. Alternatively, immigrants may stick to their ethnic media only. Therefore, it would be helpful to use other fields of study, such as intercultural communication theories, to find various reasons for different usage in the same information environments or different information environments. Particularly, cultural barriers and personal adaptation affect communication styles and worldviews so strongly that individuals' information-seeking behaviors on social media have formed differently depending on their culture.

There are many social media are existed in the world. Therefore, the impact of social media on immigrants' information seeking and the acculturation process is explored, highlighting how it facilitates connections with the home country, access to host country information, and social networking opportunities. The positive and negative effects of social media on acculturation are revealed in previous literatures but many studies focused on why immigrants use social media

and less focused on how they use social media. Therefore, it would be helpful to explore how immigrants use social media. In addition, the factors influencing immigrants' information needs and their selection and use of social media are needed to be discussed, including age, gender, ICT experience, and cultural differences in this study.

Moreover, limited research has been conducted on immigrants' information needs, their selection of social media, and how they use social media. Therefore, this study aims to provide a foundation for helping guide immigrants, and it thus needs to include a holistic view of information-seeking environments and factors with detailed examinations of various situations of immigrants when they try to fulfill their information needs and select social media for finding a solution, and how they use social media for solving their information needs.

Chapter 3. Methodology

3.1. Introduction

This chapter presents several facets of the methodology that this study used to investigate the research question. The research design is explained, and the research questions and hypotheses are described. Both quantitative and qualitative research methodologies are used to understand the information needs of Korean immigrants, the usage of social media among Korean immigrants, and the factors affecting the usage of social media among Korean immigrants. Considering the diversity of immigrants' information needs and usage of social media among different subgroups, this study administered questionnaires (online), interviews (in-person or online), and diaries (online) to study Korean immigrants' information needs and their interactions with social media. Due to the limitations and advantages of each research method, this study used a mixed method to try to capture the advantages of both research methods while reducing the risks of their disadvantages. Finally, validations in both quantitative and qualitative research were considered.

3.2. Research Design

3.2.1. Paradigm of Research Method

Library and information science use two research methods, quantitative and qualitative, which are also used in the social and behavioral sciences. Quantitative research is based on the post-positivist/positivist paradigm and uses numerical data, while qualitative research is based on the constructivist paradigm and focuses on narrative data (Teddlie and Tashakkori, 2009).

Quantitative research methods provide numerical information for gathering, analyzing, and presenting data in various fields, including the social and behavioral sciences (Teddlie & Tashakkori, 2009). These methods are based on positivism, which assumes the existence of one objective reality and aims to develop universal laws (Punch, 2013). Post-positivism is a revised form of positivism that addresses criticisms of the quantitative orientation (Teddlie & Tashakkori, 2009). Despite their differences, both positivism and post-positivism assume the existence of one reality, and quantitative research methods assume the existence of only one truth (Clark, 1998; Ryan, 2006). Quantitative methods employ deductive reasoning to generalize theories and hypotheses by finding evidence to match a developed theory (Teddlie & Tashakkori, 2009). Therefore, quantitative research methods focus on testing hypotheses with empirical data using confirmatory and descriptive research approaches. Techniques for investigating empirical data have been developed, including correlation research, experimental research, quasi-experimental research, and inferential statistical analysis (Teddlie & Tashakkori, 2009).

Qualitative research methods have gained popularity in the past few decades due to their focus on in-depth investigation and interpretation of phenomena and hidden factors (Teddlie & Tashakkori, 2009). While scientific research methods have traditionally aimed for one truth and reproducible results (Clark, 1998; Punch, 2013), qualitative researchers argue that reality is dynamic and may have multiple subjective meanings (Guba & Lincoln, 1994; Punch, 2013). Positivist quantitative research methods have been criticized for their emphasis on objectivism and controlled laboratory testing (Flick, 2014). The qualitative paradigm is based on constructivism, which posits that reality is socially constructed and subject to multiple interpretations (Punch, 2013; Flick, 2014). Qualitative research methods use inductive reasoning

and non-numeric data to create new theories (Teddlie & Tashakkori, 2009). Five types of qualitative research methods are narrative research, phenomenology, ground theory, ethnography, and case study, each having a unique methodology (Flick, 2014; Teddlie & Tashakkori, 2009; Creswell, 1998). Overall, the focus of qualitative research methods is to find and explain the process and meaning of phenomena and hidden factors with the following research methods. Narrative research examines the lives of individuals in narrative data, such as interviews. Phenomenology describes the meaning of experience for several individuals about a concept or phenomenon. Ground theory is a methodology for theory development that is grounded in narrative data. Ethnography involves studying cultural or social groups in a natural setting for an extended period of time to describe and interpret the research subject group's participant observation and interviews. Case studies allow researchers to conduct an in-depth analysis of a single case, or multiple cases, over an extended period of time. (Flick, 2014; Teddlie & Tashakkori, 2009; Creswell, 1998).

Mixed-method research has emerged as a response to the paradigm war between quantitative and qualitative researchers, as both methodologies have been criticized for providing incomplete views of complex human phenomena (Antwi & Hamza, 2015; Chen & Hirschheim, 2004). Mixed-method approaches adopt the pragmatic view that research questions should drive methodology selection, and that multiple methods can be combined to provide a more comprehensive understanding of a phenomenon (Punch, 2013; Sale et al., 2002; Teddlie & Tashakkori, 2009). This approach is becoming increasingly popular in the social and behavior sciences as well as in library and information science (Chen & Hirschheim, 2004; Creswell, 2009).

In library and information science, researchers are interested in both systems and human aspects, and therefore, using a combination of methodologies can provide a more in-depth investigation (Liebscher, 1998). The complexity of research problems has led researchers to recognize that using a single method or paradigm may not provide the understanding needed (Creswell & Clark, 2011; Ma, 2012; Sale et al., 2002; Teddlie & Tashakkori, 2009). Mixed-method approaches have emerged, allowing researchers to adopt a pragmatic approach and choose methods based on research questions, using both inductive and deductive reasoning to explore a phenomenon (Punch, 2013; Sale et al., 2002; Teddlie & Tashakkori, 2009). Ma (2012) suggests that combining large-scale data analyses with detailed descriptions can provide a richer understanding of information-related phenomena. Table 8 shows the theoretical stances of quantitative, qualitative, and mixed methods.

Table 8. Difference between Three Research Methods

	Quantitative	Qualitative	Mixed
Paradigm	<ul style="list-style-type: none"> • Positivist • Post-Positivist 	<ul style="list-style-type: none"> • Constructivist 	<ul style="list-style-type: none"> • Pragmatist
Logic	<ul style="list-style-type: none"> • Deductive 	<ul style="list-style-type: none"> • Inductive 	<ul style="list-style-type: none"> • Deductive and inductive
Data collection method	<ul style="list-style-type: none"> • Surveys, questionnaires, examinations 	<ul style="list-style-type: none"> • Interviews, observations, documents, case studies 	<ul style="list-style-type: none"> • Uses any methods for answering research question
Data analysis	<ul style="list-style-type: none"> • Hypothesis test, descriptive or inference statistic 	<ul style="list-style-type: none"> • Open coding, narrative analysis 	<ul style="list-style-type: none"> • Integrates both quantitative and qualitative analysis

3.2.2. Research Design

Similar to information-related phenomena, immigrants' information needs and information-seeking behaviors have complex contexts and many hidden factors. Immigrants have different cultural backgrounds, demographics, legal statuses, and previous knowledge that all might cause them to act differently from people in their host country when they are searching for information. Given these complications, mixed-method research can provide an in-depth analysis of immigrants' information-seeking behavior. This study is therefore using a convergent parallel mixed research design.

The reason for using a mixed-method design is to investigate situational and practical issues that could be answered by understanding “both subjective (individual), inter-subjective (language-based, discursive, cultural), and objective (material and causal) realities in the world” (Antwi & Hamza, 2015, p. 223) and by using both inductive and deductive approaches (Teddlie & Tashakkori, 2009). According to Creswell & Clark (2011), mixed methods can be used when one data source may be insufficient—for example, when studying only a few subjects in qualitative research, thus preventing the generalizability of results. On the other hand, having many subjects in quantitative research can decrease the understanding of specific factors of the research problems. Therefore, mixed-method research combines or mixes quantitative and qualitative research methods and approaches to research subjects in a single study (Flick, 2014). As mentioned above, researching information-seeking behavior involves complex situations and may require mixed-method research to provide an in-depth understanding of the topic (Liebscher, 1998; Ma, 2012). Because this study is an investigation of Korean immigrants' information needs and use of social media, applying just one research method could result in

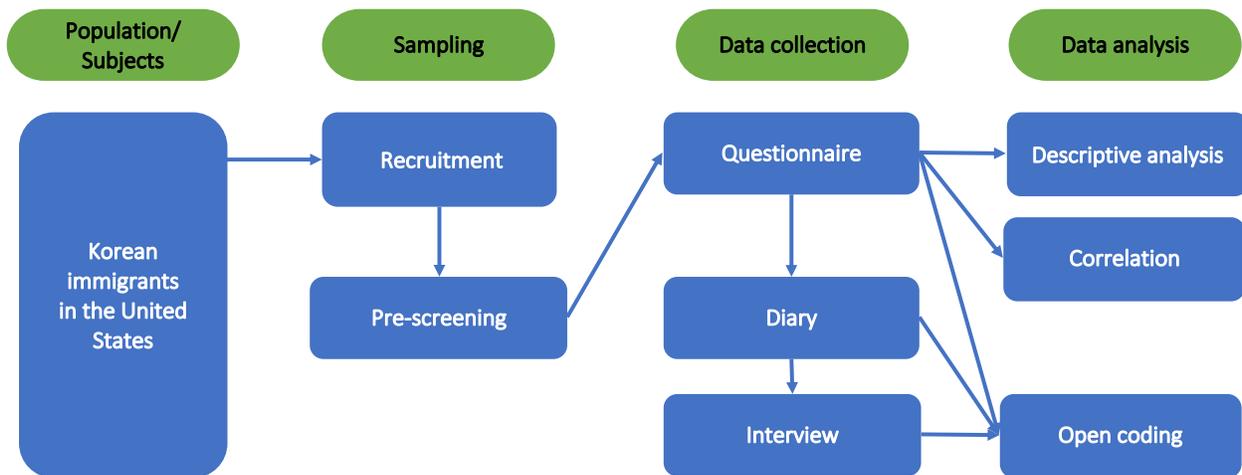
oversights in the investigation or incorrect explanations. Regarding the quantitative approach, insufficient sampling or time shortages could influence this research. Without enough data, the results would not have been actionable because the statistical results would be insufficient to attain an objective standard and possibly would prevent the ability to generalize the findings. On the other hand, the qualitative approach in this study could have meant the research would be vulnerable to the researchers' opinions, and the result could have been too subjective (Teddlie & Tashakkori, 2009).

Using a mixed method in the social sciences, including library and information science, is therefore suggested by several researchers. Lor (2012) recommends using a mixed-method approach in the study of international library and information science because mixed methods provide and deal with multiple aspects in comparative social research. Kim Cho (2012) uses a mixed-method design to investigate ethnic Korean online social media usage by married Korean immigrant women. Oh et al. (2014) apply a mixed-method approach to gain an "understanding of the complex information behaviors of international students during settlement" (p. 1). A study of everyday life information-seeking behavior and the Asian immigrant settlement processes also used a mixed-method approach to provide an in-depth analysis of the relationship between the information behaviors of Asian immigrants and the settlement process (Khoir et al., 2015). Like previous studies, finding related factors and investigating hidden obstacles in meeting the information needs and usage of social media by Korean immigrants may require multiple perspective reviews.

Therefore, this study uses a mixed-method design to gain an in-depth understanding of the research topic. In such a design, “its two-phase structure conducts the two methods in separate phases and collects only one type of data at a time. This means that single researchers can conduct this design; a research team is not required to carry out the design” (Flick, 2014, p. 82). In other words, a researcher can gather the quantitative and qualitative datasets in sequence during the research (Creswell & Clark, 2011).

Therefore, this study uses both quantitative and qualitative research methodologies to explore the information needs of Korean immigrants and associated social media usage. This study administered questionnaires, interviews, and diaries to study Korean immigrants’ information needs and social media usage. Three data collection methods were designed for gaining an in-depth understanding of the information needs of Korean immigrants and their usage of social media. Each data collection method has its advantages and limitations, so the mixed methodologies support each other. Quantitative and qualitative research methods were used in sequence. In the quantitative data collection method, questionnaires were administered to get an overview of the information needs of Korean immigrants, their frequency of social media use, and any connection between their information needs and social media. In the qualitative data collection method, this study gathered diaries and conducted interviews to learn more detailed and specific reasons for immigrants’ using social media for everyday life information seeking in the United States. Figure 2 shows the research procedures of this study.

Figure 2. Research Procedures



3.3. Ethical Considerations and Institutional Review Board Approval

3.3.1. Ethical Considerations

Research ethics are critical procedures in both quantitative and qualitative research, whether or not human subjects are involved:

Research ethics addresses the question, which ethically relevant influences the researcher's interventions could bear on the people with or about whom the researchers do their research. In addition, it is concerned with the procedures that should be applied for protecting those who participate in the research, if this seems necessary. (Schnell & Heinritz, 2006, p. 17)

There are many ethical standards documents from many organizations in the United States, such as the National Institutes of Health (Teddle & Tashakkori, 2009). Whether human or even animal subjects are involved, these organizations require researchers to provide direct notification of all relevant information to meet ethical standards (Bordens & Abbott, 2011;

Kuula, 2010). Qualitative research methods usually investigate human subjects, as do quantitative research methods, so following research ethics and procedures is very important in these studies. Researchers should not disturb participants or disregard their concerns, such as about privacy. Flick (2014) recommended following the principles of research ethics developed by Schnell and Heinritz (2006): (a) justify the necessary issues of the research; (b) explain the research's aim and the research's circumstances surrounding participants; (c) explain the methodological procedures; (d) estimate the relevant positive or negative consequences to participants in the research; (e) assess possible violations and damages arising from doing the research; (f) prevent violations and damages; (g) avoid making false statements about the usefulness of the research; and (h) respect the current regulations of data protection (2006, pp. 21–24). Before starting the research, two things must be cleared: voluntary participation and approval by institutional review boards (IRB; Trochim, 2005). To enforce ethical considerations and protect subjects' rights, as a first step, IRB approvals are required in human-related research (Teddlie & Tashakkori, 2009; Trochim, 2005). After receiving approval from IRB, researchers must have informed consent regarding participants' agreement to participate that informs them of their privacy rights (Flick, 2014; Teddlie & Tashakkori, 2009). It is crucial that participants' roles in the research are voluntary and attained without coercion (Trochim, 2005). Research ethics are also considered during data analysis to ensure that data is judged objectively. Research should protect participants' confidentiality and anonymity (Flick, 2014; Teddlie & Tashakkori, 2009).

Lor (2012) observed that international and comparative library information science research has additional ethical considerations. Every country has cultural differences as well as different

understandings and expectations of privacy and confidentiality. Moreover, some developing countries have been forced to show respect to authorities because of power relations. In this circumstance, cross-country and cross-cultural research are required to maintain ethical considerations and protect the identities of participants.

3.3.2. Institutional Review Board Approval

This study recruited participants throughout the United States and investigated the data of human subjects. Therefore, ethical considerations needed to be respected throughout the research. To proceed with the study, Institutional Review Board (IRB) approval was required because human subjects are involved. In compliance with the regulations of the University of Wisconsin-Milwaukee IRB, permission for conducting the research was granted (IRB#: 23.017 08/05/2022). The required IRB forms, including the IRB Manager Protocol Form, Interview Consent Form, Web-Survey Consent Form, and Waiver Form were filed and submitted to the IRB committee. After approval was granted, all participants were recruited voluntarily, and their privacy, personal information, and collected data have been handled to ensure anonymity and confidentiality. For example, in this research, the identities of participants were kept confidential. Rather than using their names, the researcher assigned each individual a unique participant number (e.g., Participant #1(P1), Participant #2 (P2), etc.) for reference throughout the study. Also, participant records were maintained with password protection on my personal computer, ensuring that they remained inaccessible to others. Digital files, including diary Word files and interview audio recordings, were securely stored immediately after transcription to maintain confidentiality.

3.4. Participants

3.4.1. Sampling and Recruitment

The goal of this study is to explore the information-seeking behaviors of Korean immigrants who live in the United States. Its basic population thus included Korean immigrants throughout the United States. Participants were recruited through multiple methods, including emails and snowball methods, to acquire a large enough sample size to avoid bias. For example, emails were sent via Korean organizations' mailing lists, such as Life Creek Church (Korean immigrant church) and associations of Korean Americans in Milwaukee. Also, participants also passed the invitations to their friends or family members. Before potential subjects could participate in this study, a pre-screening questionnaire was utilized to determine eligibility. To participate in the study, Korean immigrant subjects were required to be at least 18 years old, have used social media for a minimum of six months, and have resided in the United States for at least six months. In order to compensate participants for their completion of the study, each participant was offered a \$5 gift card when they participated in the questionnaire. Participants who participated in the diary or interview phases received an additional \$15 gift card.

The study gathered 113 total participants, including two pilot tests of the questionnaire data collection. Table 9 shows the characteristics of the Korean immigrants who participated in the questionnaire, excluding the two pilot test populations. The participants' average Korean language proficiency was 6.55 out of seven, and their average English language proficiency was 4.8 out of seven. Their average score for the cultural aspect assessment was 4.63 out of seven.

After conducting and analyzing questionnaires, this study recruited 16 participants for diaries and interviews from the questionnaire respondents who were checked on willing to participate in the diaries and interviews. Purposive sampling was used for participants who joined diary and interview sections. Among those who were willing to participate, participants were selected by age and gender to avoid age and gender bias. Table 10 shows the characteristics of Korean immigrants who participated in the diary and interview data collection. Their average Korean language proficiency (6.64), English language proficiency (4.63), and cultural aspect assessment score (4.54) were not significantly different from those of the participants in the questionnaire phase.

Table 9. Characteristics of Participants in the Questionnaire

Category	Sub-category	Criteria	Number of participants (N=111)	Percentage
Demographic	Age	18–29	13	11.7
		30–39	24	21.6
		40–49	35	31.5
		50 over	39	35.1
	Gender	Male	50	45.0
		Female	59	53.2
		Another gender identity not listed here	2	1.8
	Education level	Less than high school	0	0
		High School	12	10.8
		Associate	6	5.4
		Bachelor	33	29.7
		Master	29	26.1
		Doctorate	31	2.9
Income level	Other	0	0	
	\$0–32,000	16	14.4	
	\$32,001–53,000	9	8.1	
		\$53,001–106,000	27	24.3

		\$106,000 or above	33	29.7
		Don't want to answer	26	23.4
Marital status		Single (never married)	12	10.8
		Married	92	82.9
		Widowed	2	1.8
		Divorced	1	0.9
		Separated	0	0
		Don't want to answer	4	3.6
Parental status		Yes	81	73.0
		No	28	25.2
		Pregnant	2	1.8
		Don't want to answer	0	0
ICT experience	Search skills	Beginner	2	1.8
		Intermediate	65	58.6
		Advanced	38	34.2
		Expert	6	5.4
	Year of using Internet	0–3	0	0
		4–6	2	1.8
		7–9	6	5.4
	Year of using social media	Over 10	103	92.8
		0–3	5	4.5
		4–6	13	11.7
7–9		19	17.1	
		Over 10	74	66.7
Cultural background	Year of residence in U.S.	1<	5	4.5
		1–5	10	9.0
		5–10	11	9.9
		10 over	85	76.6
	Type of residence in U.S.	H	2	1.8
		Green Card	34	30.6
		Citizen	50	45.0
		F	18	16.2
		J	4	3.6
		E	3	2.7
		Other	0	0

Table 10. Characteristics of Participants in Diary and Interview

Category	Sub-category	Criteria	Frequency	Percentage
Demographic	Age	18–29	4	25.0
		30–39	4	25.0
		40–49	4	25.0
		50 over	4	25.0
	Gender	Male	8	50.0
		Female	8	50.0
		Another gender identity not listed here	0	0
	Education level	Less than high school	0	0
		High school	3	18.7
		Associate	1	6.3
		Bachelor	5	31.3
		Master	3	18.7
		Doctorate	4	25.0
	Income level	Other	0	0
		\$0–32,000	3	18.8
		\$32,001–53,000	1	6.3
		\$53,001–106,000	5	31.3
		\$106,000 or above	3	18.7
	Marital status	Don't want to answer	4	25.0
		Single (never married)	5	31.3
		Married	10	62.4
		Widowed	0	0
		Divorced	0	0
		Separated	1	6.3
Parental status	Don't want to answer	0	0	
	Yes	7	43.8	
	No	9	56.2	
	Pregnant	0	0	
ICT experience	Search skills	Don't want to answer	0	0
		Beginner	0	0
		Intermediate	9	56.3
		Advanced	6	37.4
	Expert	1	6.3	
			0–3	0
		4–6	0	0

	Year of using Internet	7–9	1	6.3
		Over 10	15	93.7
	Year of using social media	0–3	1	6.3
		4–6	1	6.3
		7–9	4	25.0
		Over 10	10	62.4
Cultural background	Year of residence in U.S.	1<	3	18.7
		1–5	3	18.7
		5–10	1	6.3
		10 over	9	56.3
Type of residence in U.S.		H	1	6.3
		Green Card	3	18.7
		Citizen	4	25.0
		F	6	37.4
		J	2	12.6
		E	0	0
		Other	0	0

3.5. Data Collection Methods

Participant data collection for this study was conducted by methods: questionnaires, diaries, and interviews. First, questionnaires were used to collect background information about participants, their types of social media usage, and their types of information needs. Second, diaries were used to learn how participants use social media in their daily life. Lastly, interviews were used to collect a more in-depth understanding of how the participants used social media and what kind of hidden factors were embedded in the selection and usage of social media for meeting their information needs. Some questions in the online questionnaires and interviews were created based on previous immigrant studies about information-seeking behaviors, needs, ICT usage, and intercultural assessments (Kim & Kreps et al., 2015; Kim & Lee, et al., 2015; Mason, 1995; Su, 1993; Suh & Hsieh, 2019).

3.5.1. Questionnaire

Questionnaires are the most popular data collection method in quantitative research.

Questionnaires with open-ended questions can be used in qualitative research, but they are also powerful tools in quantitative data collection (Bordens & Abbott, 2011). Quantitative questionnaires provide numeric data and a quantitative description of a targeted population for a sample of the population (Creswell, 2009). Bordens and Abbott (2011) observed that quantitative questionnaires are commonly used by politicians to investigate what is currently happening in the world and what may happen in the future. Questionnaires provide highly visible and understandable data that allow researchers to conduct regression or correlation analyses in inference statistics. In the questionnaires, there are four types of questions: (a) open-ended items (i.e., participants respond in their own words), (b) restricted items or closed-ended items (i.e., participants choose from a list of items), (c) partially open-ended items (i.e., participants choose items, but are provided with additional items like “other” and participants can answer in “other” with their words), and (d) rating scale (i.e., participants rate on the scale; Bordens & Abbot, 2011). The questionnaires can be distributed via mail, telephone, or Internet (Bordens & Abbot, 2011). Teddlie & Tashakkori (2009) note that questionnaires are “good for measuring attitudes and eliciting other content from research participants, and inexpensive, and quick turnaround” (p. 239). Due to this strength, questionnaires have been used in studies of information-seeking behaviors of immigrants to measure the impact of ICTs and satisfaction (Chen, 2010; Kim Cho, 2014; Machet & Govender, 2012; Oh & Kim, 2014). For example, Oh and Kim (2014) used online questionnaires to compare how American and Korean students use social media to find health information, collecting data from 575 college students, which were enough to be

generalized and overviewed. As a result, they found differences in types, frequency, topics, and privacy concerns of users of social media for health information (Oh & Kim, 2014).

Similar to those studies, this study provides an overview of the information needs of Korean immigrants and investigates their social media use. Besides closed-ended items in the questionnaires, partially open-ended items were included, because participants might wish to share different items that were not indicated in the list. Participants were located in all regions of the United States, so the online questionnaires were suitable for easy distribution and recruiting participants on a large scale and in various locations (Bordens & Abbot, 2011). As a quantitative data collection, the questionnaire was created in UWM Qualtrics. Participants accessed the questionnaire via the Internet in this study. The main categories of questions were (1) personal backgrounds, (2) types of social media (*Expat Guide Korea*, 2020; Statista, 2020; Xie & Stevenson, 2014), and (3) types of information needs (Caidi et al., 2010; Shoham & Strauss, 2008; Suh & Hsieh, 2019). The list of types of social media and the list of types of information needs were pre-defined. First, this study used the same types of social media as defined by Xie and Stevenson (2014) and added more social media listed in *Expat Guide Korea* (2020) and Statista (2020) to account for more recent popular social media options in the United States and South Korea. Second, this study used the pre-defined eight categories of types of information needs from Shoham and Strauss (2008) and Suh and Hsieh (2019) and then added monitoring information as defined by Caidi et al. (2010).

As this study utilized pre-defined categories of social media and information needs, it was important to evaluate the comprehensibility of the questionnaire and make any necessary

additions or deletions. To accomplish this, two participants were recruited to pilot the questionnaire and provide feedback. In response to their comments, this study changed category names to broader, more recognizable terms and added more detailed sub-categories for each main category of information needs. For example, bank information was a pre-defined category, but this study changed the name to financial information and included bank information, car insurance, health insurance, life insurance, and home/rent insurance as sub-categories. Furthermore, the two pilot studies showed that participants might have more information needs and social media types than were listed, so additional “other” sections were added to the questionnaire, allowing participants to add more types of information needs and associated types of social media.

Thus, questionnaires were created based on previous literature and were already pre-defined, but added more detailed sub-categories and descriptions. They consisted of closed-ended questions and 7-point Likert scale questions used for measuring frequency and satisfaction. Specifically, this list of questions and associated measurements was created:

- demographic items
 - age (18–29, 30–39, 40–49, 50+)
 - gender (Male, Female, Another gender identity not listed here)
 - education level (Less than high school, High school, Associate, Bachelor, Master, Doctorate, Other)
 - annual income level (\$0-32,000, \$32,001-53,000, \$53,001–106,000, \$106,001 or above, Don’t want to answer)

- marital status (Single (Never married), Married (Living together), Widow, Divorced, Separated, Don't want to answer)
- children to support/parenting status (Yes, No, Pregnant, Don't want to answer)
- ICT experience items
 - information search skill (Beginner, Intermediate, Advanced, Expert)
 - years of using the Internet (0-3, 4-6, 7-9, over 10 years)
 - years of using social media (0-3, 4-6, 7-9, Over 10 years)
 - year of living in the United States (6-12 months, 1-5 years, 6-10 years, Over 10 years)
 - frequency of using social media (7-point Likert scale)
 - satisfaction with using social media (7-point Likert scale)
- cultural items
 - status of immigrants (Citizen, Green Card, E, F, H, J, Other)
 - language proficiency (7-point Likert scale for Korean and English)
 - level of cultural adaptation (7-point Likert scale)
- information needs items and associated social media (7-point Likert scale)
 - education, financial, health, law, monitoring, settlement, socializing, transportation, work, or other information needs
 - associated social media (name, frequency, satisfaction)

Online questionnaires were written in both English and Korean to avoid misunderstanding by Korean immigrants who were not familiar with English. Appendix A provides more detailed information about the online questionnaires. Online questionnaires were distributed through

UW-Milwaukee Qualtrics. Participants accessed the online questionnaire via the provided link through email and then started answering questionnaires.

3.5.2. Diary

Collecting participant diaries is a form of document analysis and has been considered a good research method to “collect detailed information about behavior, events and other aspects of individuals’ daily lives, and can help determine the antecedents, correlates, and consequences of daily experiences” (Lakshminarayanan, 2010, p. 148). Providing a diary to participants can allow the researchers to gain insight into how participants are using social media in daily life. Diaries allow researchers to see user activities that cannot be observed or discovered by interviews and also see data and activities sequentially (Lakshminarayanan, 2010). However, diaries heavily rely on participant self-reporting, which can be influenced by memory bias or lack of explanation from participants (Lakshminarayanan, 2010). Even though diary analysis has credibility issues, diaries are helpful in recording daily activities in some studies on the information-seeking behaviors of immigrants (Binsahl et al., 2015; Choemprayong, 2010).

This study instructed participants to use a diary for two weeks before interviews to collect more qualitative data which helped the researcher ask more detailed questions. Diaries were distributed to participants in a structured format for easy organization and for gathering more accurate data from participants (Pickard, 2007). Diaries were used to record whenever participants used social media to gather information, how they used it, why they used it, what information they tried to find, whether they found accurate information or not, and any other comments on their usage of social media. This diary process allowed this study to see

participants' activities in a way that is difficult to achieve in the questionnaires and interview methods. Therefore, diaries allowed this study to acquire detailed data about participants' patterns of social media usage and the reasons for their social media selections. Participants wrote on each section and item. An example of a diary and the associated instructions are shown in Table 11.

Table 11. Diary Template Example

<p>Subject Number: P1</p> <p>Please fill in the blanks in the table. During the two weeks, please record as many as possible.</p> <ul style="list-style-type: none"> - Date/time <ul style="list-style-type: none"> o MM/DD, HH/MM PM/AM (e.g., 06/02, 04:53 PM). - Type of information seeking <ul style="list-style-type: none"> o Please choose from the types of information I provided. o If you cannot find the right type, feel free to write down your information need, such as travel. - Purpose of information seeking <ul style="list-style-type: none"> o Feel free to write down your purpose. o For example, I want to find a good vacation place for this summer. - Types of social media <ul style="list-style-type: none"> o Please choose from the types of social media I provided. o If you cannot find the right type, feel free to write down the social media you used. - Reason to use social media <ul style="list-style-type: none"> o Feel free to write down your reason. o For example, I want to find good place to go for summer vacation from friends' vacation pictures. - How do you use social media? <ul style="list-style-type: none"> o Feel free to write down your activities. o For example, I just scroll down a list of YouTube videos after searching summer vacation. - Usage Time <ul style="list-style-type: none"> o Minutes (e.g., 17 min.) - Did you find information you wanted? <ul style="list-style-type: none"> o Yes/No question - Was it expected or unexpected information when you found it? <ul style="list-style-type: none"> o Yes/No question - How do you feel? Comments <ul style="list-style-type: none"> o You can freely provide your comments. <p>After finishing, please click the save button. After two weeks, please send it back to me (taehee@uwm.edu).</p>

Date /Time	Type of information seeking	Purpose of information seeking	Types of social media	Reason to use social media	How do you use social media?	Usage time (min)	Did you find the information you wanted?	Is it expected or unexpected? (Yes/No)	How do you feel? Comments?
07-10 10:30am	Education	Find information about university that my son may enter	YouTube	There are many videos about universities	Search university name in YouTube and then scrolling down the list to find relevant title	An hour	Yes	Yes	It was taking a time to find a video had good and relevant information about XXX university

3.5.3. Interview

The interview is the most popular data collection method in qualitative research because interviews allow researchers to see subjective viewpoints and interpret participants' perceptions and opinions in a way that would otherwise be diminished in quantitative research (Flick, 2014; Punch, 2013). Typically, an interview involves the interviewer asking an interviewee question, and interview questions are formed as open-ended, closed-ended, or both (Teddlie & Tashakkori, 2009). According to Flick (2014), there are six types of interviews: focused, semi-standardized, problem-centered, expert and elite, ethnographic, and online interviews. Focused interviews provide a uniform stimulus, such as a film, to interviewees and then measure the impact on the interviewees during the interview. Semi-standardized interviews are based on subject theory, which assumes that "the interviewees have a complex stock of knowledge about the topic under study" (p. 217) and have been used to reconstruct the interviewee's subject knowledge. Problem-centered interviews focus on a certain problem and collect biographical data related to the problem from interviewees by incorporating questions and narrative stimuli. Expert and elite

interviews are used to develop a typology or theory by interviewing experts in an organization. Ethnographic interviews are designed to “discover the cultural meanings people have learned” (Punch, 2013, p. 164) and are generally combined with participant observation. Online interviews are the same as face-to-face interviews, but the method of contact is changed to the Internet so that interviewers and interviewees can meet or communicate via email or an online communication program.

The strength of interviews is that they allow “one-to-one interaction between researchers and interviews” so that “interviewers can ask for explanations of vague answers or to provide clarification if a question is not clear” (Teddlie & Tashakkori, 2009, p. 229). Moreover, interviews can collect general information or specific motivations for behavior, so they have been used by researchers to reconceptualize or conduct deep investigations into a certain topic, such as initial studies about unknown populations in cross-cultural and multicultural research (Teddlie & Tashakkori, 2009). Many studies of immigrants’ information needs or information-seeking behaviors have used interviews as a major data collection method (Kim et al., 2015; Khoir et al., 2015; Lingel, 2011; Mao & Qian, 2015; Oh et al., 2014; Shoham & Strauss, 2008; Showail et al., 2013; Thomas, 2008). Oh et al. (2014) used interviews to investigate the information-seeking behaviors of international students settling in an unfamiliar environment in order to collect qualitative data concerning participants’ initial arrival experiences and adjustments to their new environment. Open coding was used to analyze the data. Similarly, this study isolated Korean immigrants’ specific reasons for using social media in terms of certain factors, such as immigration status or cultural differences.

This study used semi-structured interviews that provided predetermined questions and also open-ended questions to explore a certain problem or episode and collect biographical narrative data. Face-to-face interviews would have been suitable for this study because they would have allowed the researcher to collect verbal and nonverbal communication data. However, because participants in this study were located throughout the United States and this research was done during the Covid-19 epidemic, the interviews were conducted online. Also, participants were hesitant to turn on their webcams, so all interview recordings were voice recordings in Microsoft Teams and Zoom software.

As a qualitative data collection, interviews were used for finding in-depth reasons or hidden factors related to the usage of social media for meeting the information needs of Korean immigrants. Interviews consisted of open-ended and closed-ended questions and took around half an hour. As a qualitative data collection method, in-depth interviews are frequently used because they can produce rich data to enhance the understanding of information-seeking behaviors (Seidman, 2006). The main categories of interview questions in this study were (1) participants' experiences with meeting information needs in their everyday lives in the United States; (2) identification of types of information needs in their everyday lives in the United States; (3) use of social media in their everyday lives in the United States for meeting their information needs; (4) selection of social media for meeting information needs; (5) challenges of using social media in the United States; and (6) desire and expectation.

Based on the previous research (Shoham & Strauss, 2008; Suh & Hsieh, 2019), this research expended and modified questions because this study focuses on social media. For example,

previous research asked one question for ICT use, such as “How do you use ICTs?” (Suh & Hsieh, 2019), but this study changed and added more detailed questions: “How do you use social media?”, “What kind of social media do you usually use for finding information?”, and “What kind of information do you like to search for on social media and why?” Interviews were conducted for each individual interviewee at the time that was the most convenient for them. All data acquired from intensive interviews were transcribed in Korean and then coded in Korean. Then, the coded data were translated into English. The reason why translation occurred after analysis was that it might be best if the researcher spoke the same language as the participants to avoid the potential loss of implicit expressions that could result from translating before analysis (Nurjannah et al., 2014). Appendix C provides more detailed information regarding interview questions.

3.6. Data Analysis

Data analysis in the mixed-method approach is determined by the type of mixed-method research design (Creswell, 2009). It is mandatory that both quantitative data and qualitative data are analyzed, but the procedure of analysis differs according to the type of mixed method. This study uses an explanatory sequential design in which quantitative analysis occurs first and qualitative analysis occurs second (Teddlie & Tashakkori, 2009; Creswell & Clark, 2011). Data in this study included online questionnaires, diaries, and interviews. The data from the participants’ online questionnaires were collected in scores of 7-point Likert scales based on a variety of criteria and associated explanations. The collected data were analyzed both quantitatively and qualitatively. Interview data from the selected participants were recorded, transcribed, and then translated. The collected transcripts were analyzed qualitatively. In addition to the interview data, the diary data

collection method was used for showing daily usage patterns of social media and was analyzed qualitatively. Table 12 outlines the general procedures of the data collection and analysis with associated research questions and hypotheses.

Table 12. Research Questions and Associated Data Collection and Data Analysis Methods

Research questions and associated hypotheses	Data collection	Data analysis
RQ1		
<ul style="list-style-type: none"> • What are the top types of information needs on social media that Korean immigrants fulfill during their everyday lives in the United States? 	<ul style="list-style-type: none"> • Online questionnaire 	<ul style="list-style-type: none"> • Open coding • Descriptive analysis
RQ2		
<ul style="list-style-type: none"> • What types of social media do Korean immigrants most frequently use during their everyday lives in the United States for different types of information needs? 	<ul style="list-style-type: none"> • Online questionnaire 	<ul style="list-style-type: none"> • Descriptive analysis
RQ3		
<ul style="list-style-type: none"> • Are there any relationships between the types of social media Korean immigrants select and demographic factors, ICT experience level, cultural factors, and information needs? <ul style="list-style-type: none"> ○ H₀₃: There is no significant relationship between selected types of social media among Korean immigrants and various variables including demographic factors, ICT experience, cultural factors, and information needs. ○ H₀₃₋₁: There are no significant relationships between types of information needs of and types of social media used by Korean immigrants. ○ H₀₃₋₂: There are no significant relationships between demographic variables, including Age (H_{03-2a}), Gender (H_{03-2b}), Education level (H_{03-2c}), Income level (H_{03-2d}), Marital status (H_{03-2f}), and Parenting status (H_{03-2g}), and types of social media in Korean immigrants. 	<ul style="list-style-type: none"> • Online questionnaire 	<ul style="list-style-type: none"> • Chi-square test of independence

-
- H₀₃₋₃: There are no significant relationships between ICT experience variables, including Level of search skills (H_{03-3a}), Year of internet use (H_{03-3b}), Year of social media use (H_{03-3c}), Frequency of social media use (H_{03-3d}), Satisfaction with social media (H_{03-3e}) and types of social media used by Korean immigrants.
 - H₀₃₋₄: There are no significant relationships between cultural variables, including Korean proficiency (H_{03-4a}), English proficiency (H_{03-4b}), Cultural aspect assessment score (H_{03-4c}), Year of residency (H_{03-4d}), and Types of residency (H_{03-4e}) and types of social media used by Korean immigrants.

RQ4.

- What factors influence the selection of types of social media among Korean immigrants?
 - Online questionnaire
 - Interview
 - Diary
 - Open coding
 - Descriptive analysis

RQ5.

- How do Korean immigrants use social media for finding information during their everyday lives in the United States?
 - Online questionnaire
 - Interview
 - Diary
 - Open coding
 - Descriptive analysis

RQ6.

- What factors influence Korean immigrants' social media use for information seeking in their everyday lives in the United States?
 - Online questionnaire
 - Interview
 - Diary
 - Open coding
 - Descriptive analysis
-

3.6.1. Quantitative Data Analysis

SPSS 26 was used to analyze the quantitative data. After the questionnaires were received, all data were stored in SPSS 26, which was then used to generate descriptive analysis and inferential statistics as well as measures of validity and reliability. Demographic and cultural background

data, frequency of social media use and satisfaction with social media data, and type of information seeking by Likert scale were used for answering RQ1 and RQ2 by descriptive analysis, and the hypotheses in RQ3 were answered by inferential statistics correlation. RQ4, RQ5, and RQ6 used descriptive analysis to show how many coded items occurred in participants' diaries and interviews.

After validity and reliability were checked, quantitative data were analyzed statistically.

Traditionally, statistical analysis can be divided into descriptive or inferential statistics.

Descriptive analysis involves a procedure of summarizing data that provides a brief review of the quantitative data, whereas *inferential statistics* are generated from descriptive results, allowing researchers to “infer the characteristics of a population from the characteristics of the samples comprising the data” (Bordens & Abbott, 2011, p. 430). The goal of descriptive analysis is to simplify collected quantitative data and present a simple summary about the sample that has been collected (Gravetter & Wallnau, 2013). It is a technique that will “take raw scores and organize or summarize them in a form that is more manageable. Often the scores are organized in a table or a graph so that it is possible to see the entire set of scores. Another common technique is to summarize a set of scores by computing an average” (Gravetter & Wallnau, 2013, p. 8). It means that each raw data score, no matter how many samples there are for that score, can be presented and summarized by means and median of the score.

This study used descriptive analysis to examine RQ1, RQ2, RQ4, RQ5, and RQ6. RQ1 was a question about the types of information needs Korean immigrants have, and this study used pre-defined information needs (Caidi et al., 2010, pp. 503–504), but modified them to collect more

detailed data and make them more understandable to participants. After collecting data, descriptive analysis results were used to generate a table of frequency of and satisfaction with types of information needs Korean immigrants have. RQ2 was a question about the types of social media Korean immigrants frequently used for different types of information needs. Descriptive analysis results were used to generate a table of frequency of and satisfaction with types of social media and also a table of which social media platforms are frequently used for certain types of information needs. In addition, descriptive analysis was used as a supplementary tool to show how many coding schemes were mentioned during diaries and interviews in the responses relevant to RQ4, RQ5, and RQ6.

Inferential statistics “consist of techniques that allow us to study samples and then make generalizations about the populations from which they were selected” (Gravetter & Wallnau, 2013, p. 8). This means that inferential statistics help a researcher make a prediction from the selected dataset. Questionnaire items are analyzed by hypothesis tests, and the results allow researchers to make general statements about a population. However, the population is normally so large that measuring everyone in the population is not possible. Therefore, a selected sampling represents the population in inferential statistics. To acquire generalizations, normal distributions and homogeneity of variance are assumed (Kirk, 1995; Gravetter & Wallnau, 2013). The distribution and variance will be checked first for normality tests when the data is collected and examined to see whether the data show any violations of the assumptions. If there is a violation, alternative approaches are applied to meet the assumptions. For example, logarithmic or square root or normal transformation methods can help the data achieve near-normal distribution.

This study uses inferential statistics to answer RQ3. In this study, questionnaire items included demographic variables, ICT experience variables, cultural variables, social media variables, and information needs variables. Those data were collected and summarized in the text and reported in tabular form for answering RQ3 and associated hypotheses H₀₃. RQ3 asked about the relationships between types of information needs and the types of social media used, so a Chi-square test of independence was applied. Correlation statistical techniques can measure and describe the relationship between two variables (Gravetter & Wallnau, 2013). The Pearson correlation is commonly used. It measures “the degree and the direction of the linear relationship between two variables” (Gravetter & Wallnau, 2013, p. 514). However, the collected data in this study were not normally distributed, and variables were categorical data (nominal and ordinal data), so the Pearson correlation could not be calculated. Therefore, this study used Chi-square non-parametric test. This is a non-parametric test and can be applied to categorical variables and also non-normalized data. This Chi-square test of independence result presented the relationship between 1) types of information needs and types of social media, 2) types of demographic variables and types of social media, 3) types of ICT experience variables and types of social media, and 4) types of cultural variables and types of social media.

3.6.2. Qualitative Data Analysis

Qualitative analysis can uncover hidden factors that may help to explain immigrants’ social media usage. According to Flick (2014), the purpose of qualitative analysis is to describe a phenomenon and find explanations for it. Qualitative data refers to non-numeric information, including verbal interview transcripts, audio/video recordings, and text documents.

In this study, qualitative data were examined to identify types of reasons for selecting and using social media and types of information needs corresponding to RQ1, RQ4, RQ5, and RQ6. *Open coding* of the data from the interviewee was used for identifying significant and distinct units of information. According to Strauss and Corbin (1990), open coding is the process of breaking down, examining, comparing, conceptualizing, and categorizing unstructured textual transcripts and then putting them back together in new ways. This approach allows a researcher to investigate collected data and find hidden data inductively (Corbin & Strauss, 2008). The reason this study used open coding is that open coding allows researchers to find concepts and hidden factors in data and also to view and identify central phenomena (Flick, 2014). The study utilized open coding for the identified reasons for quantitative analysis or to unveil hidden reasons behind quantitative data. The object of the analysis is to identify determinants for the information-seeking behaviors of immigrants and associated social media, so the researcher needed to find various data and sources for analysis. Therefore, open coding allowed the researcher to make a list of the participant responses and to examine and analyze the data collected from them.

Eventually, the data will be open coded inductively to identify categories. However, the open coding process is very time-consuming, so the researcher input qualitative data from interviews into NVivo software to reduce this effort and time. NVivo software allows the use of multiple sources and can code multiple nodes in the source, and codes can also be automatically generated by In-Vivo codes or even by the researcher. In this research, In-Vivo codes are from participants' words, but there was too much variation for constructed codes to be used. Constructed codes are from the words from participants, but those were modified to match academic terms or created

by researchers. This coding technique allows researchers to take account of actual events and circumstances. Also, it permits categorizing responses that contain the same concept or similar meaning as a group.

In this study, open coding was used. Table 10 shows an example of a coding scheme based on previous studies (Savolainen, 2016; Suh & Hsieh, 2019; Wang et al., 2020), and the table contents come from interview and diary data. After examining diary and interview data by coding scheme, coding tables for factors leading to the selection of social media, lists of techniques for using social media, and factors associated with the use of social media were generated and listed in Tables 13 and 14.

Table 13. Coding Scheme Example

Participant number and quote number	P26
Participants quote:	<p><i>In the case of things like home appliances</i>, there are people who provide <u>very detailed reviews on social media platforms</u>, and there are some <u>unique standards among Korean users when it comes to things like food or cleaning, because the way Americans live is different</u>. Even something like cleaning with water is different... When it comes to <i>shopping information</i>, I <u>tend to look at Korean community boards</u> within the U.S. for <i>products that can be purchased in the U.S., especially if it's related to household items...</i></p>
Information needs main category	shopping information
Information needs sub-category	products that can be purchased, household items
Reason for information needs	buy home appliances
Types of social media	Korean community boards
Factors leading to the selection of social media	very detailed reviews on social media platforms, unique standards among Korean users when it comes to things like food or cleaning, because the way Americans live is different

Challenges	
Technique for using	tend to look at
Outcome (solved needs, failed needs, just used for self-entertaining)	
<p>Legend for color coding</p> <p>Quote type: Related information needs in <i>italics</i>, related social media in <u>underline</u></p> <p>Main category information needs in <i>italics with bold dark green</i></p> <p>Sub-category information needs in <i>italics with bold green</i></p> <p>Reason for information needs in <i>italics with bold dark yellow</i></p> <p>Types of social media in <u>underline with bold blue</u></p> <p>Reason for seeking social media in <u>underline with bold blue-gray</u></p> <p>Technique for using in bold purple</p> <p>Reason for how social media was used in <u>underline with bold dark blue</u></p> <p>Challenges in bold red</p> <p>Outcome in bold orange</p>	

Table 14. Example of Coding Scheme

Category	Factors	Definition	Example
Factors leading to the selection of social media	Social network influence	The method of seeking and sharing information within one’s social network of friends, family, or organizations	<i>P83: Yes, that’s right. Almost every friend uses Instagram, so it’s very convenient to access.</i>
	Information format	The way in which information is presented, organized, and communicated, such as text or video	<i>P11: I think that explaining with videos can make it easier to understand because when the video and narration explain together, it can be more effective.</i>

	Information needs	The specific information that an individual or group requires to meet their goals, solve problems, or make informed decisions	<i>P1: In the case of YouTube, I obtain a lot of information related to university and also things related to American culture.</i>
	Information quantity	The amount of information available or needed for a particular purpose or task	<i>P2: I can find a lot of information by searching for sheet music and videos on how to conduct or perform. Many people upload these kinds of videos.</i>
	Language and culture	The interconnection between the system of communication and the shared beliefs, values, and practices of a group of people, such as language proficiency and cultural intimacy	<i>P12: There are a lot of people who provide information in Korean on YouTube about the U.S. So, I try to find and watch those videos to better understand things.</i>
	Review	An evaluation or assessment of something, typically a product, service, or performance, based on personal experience or opinion	<i>P2: I look at the number of stars first, and if there are any reviews, I read them. The same goes for places like museums in New York. I look at reviews to see what's good... So, I rely on those kinds of sources a lot.</i>
Technique for using social media	Ask a question	Ask questions and have an answer on social media	<i>P9: So, I didn't know much about them and had to look them up, then I ask by posting a question.</i>
	Click a feed/subscribe	Click a notification and see a post when a feed is updated	<i>P26: Because I have a few channels that I am</i>

	notification and check the posting		<i>subscribed to, for example, related to pets and topics that I am interested in. So, when there's new content, it automatically shows up.</i>
	Click a hashtag	Search by clicking a hashtag	<i>P30: When I need to find specific information like recipes, I use hashtags to search for it once, and then continue browsing.</i>
	Log into social media and browse or scroll	Open social media and start to browse or scroll up and down the list that a platform provides	<i>P71: Rather than searching for things separately, I browse through the videos and clips that are recommended by the algorithm.</i>
	Search in a search engine and click a social media link on the search results list	Search on a search engine such as Google, and then click on a social media post on the list of search results	<i>P26: Since I likely found related message board posts through the Google search. For example, American blogs have too many ads within the posts, so sometimes I had to go back because of those ads.</i>
	Search a keyword and browse in a platform	Use a search box in a platform and then browse the result list	<i>P26: I now do a lot of searches on Korean Naver Blogs or other similar sites because for these types of cultural and Korean-specific products, I need Korean perspectives and reviews</i>
Factors associated	Algorithm	The set of rules or procedures that governs how content is	<i>P82: There are a lot of interesting things that I come across through the</i>

with use of social media	ranked, organized, and displayed to users on the social media platform	<i>platform's algorithm, so I end up using it quite a bit.</i>
Features	Functions that users want to use in social media	<i>P11: This is Instagram story function. When I swipe, even if it's not my friend's ad, the ad pops up. If there is a link included in it, I click on it and go directly to the homepage if I wanted to see.</i>
Filtering amount of information	The purpose of reducing information amount they received	<i>P1: Since I follow certain accounts, I only receive information from those accounts, so it's what I want to receive to some extent.</i>
Relevance of results	Accuracy of search results after entering a search keyword or accuracy of list of contents provided by a social media	<i>P83: I usually find a lot of necessary information by searching and exploring YouTube, but sometimes when I search for things that are lacking in information or not of interest to many people, irrelevant results keep popping up.</i>
Speed of information delivery	Quickness of receiving information from a social media	<i>P30: I like to read manga and want to see a new book as soon as possible. I generally read newly published mangas when I receive a notification from Instagram.</i>

3.7. Validation

Validation is critical to maintaining the accuracy of findings in the research. Researchers make complex choices in research design and build methods to find reasonable evidence that will address the research questions. Therefore, validation procedures are some of the most important measurements in both quantitative and qualitative research, but the recognition and application of validation are different in the two approaches. Adapting quantitative validity and reliability to the qualitative method has been discussed, but many researchers have observed that the concept of validation in quantitative research methods cannot be applied to qualitative research methods (Adcock & Collier, 2001; Creswell, 2009; Golafshani, 2003; Lincoln & Guba, 1985). According to Adcock and Collier (2001), validity and reliability in qualitative research have relied on researchers' subjectiveness, so the concept's validity (the means of measurement are accurate) and reliability (the results are replicable) in quantitative research could not be used in qualitative research. Therefore, the terms of internal validity, external validity, and reliability in quantitative research are transformed to fit qualitative research's methods: Internal validity is similar to credibility, external validity to transferability, and reliability to dependability (Lincoln & Guba, 1985; Teddlie & Tashakkori, 2009). This study used data triangulation and intercoder reliability in the qualitative analysis, and checked distribution and variance for validation in the quantitative analysis.

3.7.1. Validity, Reliability, and Generalizability

In quantitative research methods, validation is typically represented by reliability, validity, and generalizability (Liebscher, 1998). Reliability means that numeric data are consistent and stable

over time. Validity means that the numeric score from quantitative methods meaningfully reflects the construct being measured. Generalizability means that the results are representative of the whole population (Creswell & Clark, 2011; Ercikan & Roth, 2006). In addition, quantitative researchers consider “the validity of the conclusion that they are able to draw from their results,” and internal validity and external validity are used to support the validity (Creswell & Clark, 2011, p. 210). Internal validity is “the degree to which alternative explanations for the obtained results can be ruled out” (Teddlie & Tashakkori, 2009, p. 298) and reflects a causal relationship among variables. Specifically, it means that internal validity has a connection with the experimental conclusions themselves and observed the relationship between independent and dependent variables (Creswell, 2009; Winter, 2000). On the other hand, external validity is defined as “the degree to which the inferences made on the basis of the results are consistent across variation in persons, settings, treatment variables, and measurement variables” (Teddlie & Tashakkori, 2009, p. 298). While internal validity focuses on the experimental results under investigation, external validity concerns whether research results can be applied to different populations. Specifically, the findings of an externally validated study can be generalized for a larger population (Creswell, 2009; Gravetter & Forzano, 2012). In addition, Gravetter and Wallnau (2013) suggested that correlation, as measured in quantitative research, can be useful for determining reliability.

When the data were collected for quantitative analysis, the distribution and variance were first checked to see whether there are any violations of the standard assumptions. Some alternative approaches were considered and performed because the data were not normally distributed or showed unequal variance (Kirk, 1995). The data distribution of the collected data set was skewed

so that the logarithmic, square root transformation, and square normal transformation methods were used so that the data achieved near-normal distribution. However, the data were not normally distributed and also included dependent variables, and the types of selected social media were categorical data. Therefore, an alternative analysis method, Chi-square nonparametric test, was applied to the data, which had a small sample size and unusual distribution (Pett, 1997).

3.7.2. Trustworthiness and Intercoder Reliability

In qualitative research methods, validation is typically represented as trustworthiness with four criteria—dependability, credibility, transferability, and confirmability—that are used to validate the trustworthiness of the research (Teddlie & Tashakkori, 2009; Punch, 2013). Dependability is concerned with whether other researchers consistently produce the finding; credibility is focused on whether “the findings are plausible” (Zach, 2006, p. 7); transferability is defined as the degree that the results can be generalized or transferred to other contexts besides the researched context; and confirmability is concerned with whether the results of the study can be confirmed by other researchers (Flick, 2014; Teddlie & Tashakkori, 2009; Zach, 2006). In relation to data sources, researchers have suggested several ways to increase validity and trustworthiness (Bordens & Abbott, 2011; Creswell, 2009; Creswell & Clark, 2011; Gravetter & Wallnau, 2013; Roberts et al., 2006; Zach, 2006). For example, Creswell (2009) and Zach (2006) suggest using triangulation, member checking, and the use of peer review for increasing trustworthiness. For triangulation, Zach (2006) and Creswell and Clark (2011) suggest using multiple data resources. In mixed methods, different sources of data are used, and the collected data are analyzed using both quantitative and qualitative approaches.

For better trustworthiness, therefore, this study used data triangulation (questionnaires, diaries, and interviews) and intercoder reliability in the qualitative analysis. Intercoder reliability is defined as the “numerical measure of the agreement between different coders regarding how the same data should be coded” (O’Connor & Joffe, 2020, p. 2). For better validity and trustworthiness, more than two researchers should attempt to create coding schemes individually (Creswell & Clark, 2011; Roberts et al., 2006). Creswell (2012) suggests using intercoder agreement or cross-checking in the process of encoding. After the two coders finish their schemes, the intercoder reliability of the coding scheme can be calculated by Holsti’s reliability formula (1969). This formula is that intercoder reliability = $2M / (N1 + N2)$. M is the agreement between two coders, and N1 and N2 are the number of coding decisions made by each coder. In the qualitative analysis, two coders coded one set of participant interview data independently. Then they discussed the coding scheme and reached agreement about the final coding scheme. With this coding scheme, the two coders then coded two sets of diary and interview data, and the results were checked using Holsti’s reliability formula (1969) for ensuring intercoder reliability. The intercoder reliability score between the two coders was 0.914.

In sum, the quantitative and qualitative data analysis used in this study both confirmed the validity and enhanced the accuracy of data by employing various strategies, including the triangulation of data, intercoder reliability of interview and diary data, and the use of data analysis software. Also, the mixed-method design in this study reduced validity risks in the data interpretation.

3.8. Summary of the Methodology

This chapter outlines the methodology used in this study, which aims to examine a specific type of information resource and its associated information needs, the factors influencing the selection of that resource, how Korean immigrants use social media, and the factors influencing their usage style. The study recruited 111 Korean immigrants aged 18 and above who had lived in the United States for over six months and had actively used social media for over six months in the questionnaire data collection. In diary and interview data collection, 16 participants were selected from participants who answered Yes to whether they would participate in the diary and interview phases. Data were collected through questionnaires, interviews, and diaries. To answer the study's six research questions and associated hypotheses, a combination of qualitative and quantitative data analysis methods was employed. In particular, descriptive analysis and Chi-square test of independence were used in quantitative data analysis, and open coding was used in qualitative analysis.

Chapter 4. Results

This study aims to investigate the information needs of Korean immigrants and how they fulfill these needs through social media platforms. This chapter presents the results of the data analysis conducted on the responses of 111 participants to the questionnaires and 16 participants to the diary and interview phases. The chapter discusses the study's major findings and addresses six research questions, along with their associated hypotheses and sub-questions.

4.1. Research Question 1: What Are the Top Types of Information Needs on Social Media that Korean Immigrants Fulfill During Their Everyday Lives in the United States?

To answer the first research question, the researchers collected questionnaire data to examine the most common types of information needs among Korean immigrants. Participants were asked to identify their information needs from nine pre-categorized options (education, employment, financial, health, law, monitoring, settlement, socializing, and transportation) and were allowed to add any additional information needs. Participants also provided information on the frequency of and satisfaction with their information needs in the United States.

4.1.1. New Categories of Information Needs

Participants added numerous information needs that were not included in the pre-categorized options. They were categorized into five additional types of information needs: recreation, shopping, travel, food and dining, and parenting. Here is the table of the information needs participants added.

Table 15. List of New Information Needs from the Questionnaires

Category of information needs	Definition	Example
Relaxation information	Information needs when users want to find any information regarding regular activities for their free time	Music, sports, hobby, beauty, religion, watching something
Food and dining information	Information needs when users want to find eating-related information	Food, restaurant, grocery
Shopping information	Information needs when users want to buy something for home improvements or personal use	Buying household products, clothes, purses, jewelry, electronic products
Travel information	Information needs when users want to go somewhere from their homes to spend their free time or take a break	Travel, trip, vacation, flight
Parenting information	Information needs when users want to find information regarding how to raise their children or find a nanny	Babysitting, raising kids

4.1.2. Top Information Needs on Social Media among Korean Immigrants

Out of the 111 participants, education was the most popular information need on their social media. 60 out of 111 participants used social media for their education information needs.

Monitoring (56) and social information (56) were a close second and third, respectively. Figure 3 presents how many participants used social media for each information need.

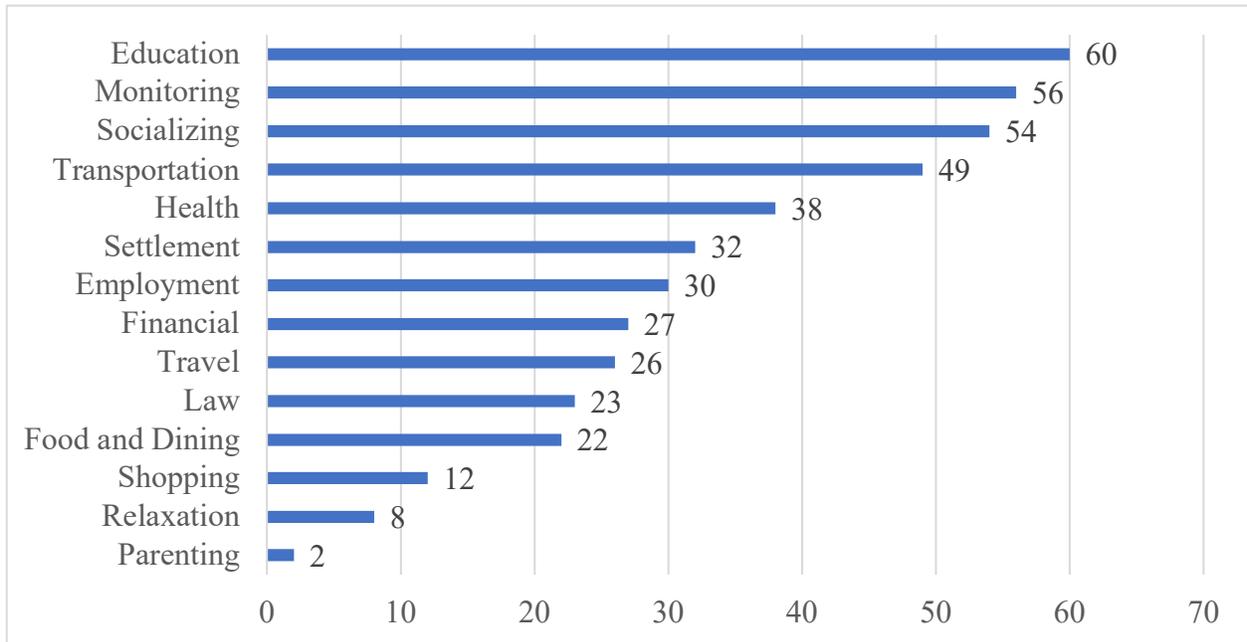


Figure 3. Ranking of the Most Selected Information Needs on Social Media

Interestingly, the most selected information needs on social media are not guaranteed high frequency of use or satisfaction (Table 16). The researcher used seven-point Likert scales in frequency of use and satisfaction questions. The frequency of use results shows that the most frequent information need is relaxation information (5.7). Monitoring (5.28) and shopping (5.28) information needs follow as the next most frequent needs. Relaxation and shopping are not among the five most popular information needs among the participants, but their frequency of use was higher than any others. On the other hand, education, socializing, transportation, and health information have less frequency than relaxation and shopping. In satisfaction, relaxation (6.3) had the highest satisfaction level, followed by shopping (6.17) and parenting (6.0).

Table 16. Average Frequency of and Satisfaction with Types of Information Needs

Types of information needs	Average Frequency	Average Satisfaction
Relaxation	5.70	6.30
Monitoring	5.28	5.34
Shopping	5.28	6.17
Settlement	5.08	5.49
Education	5.06	5.21
Travel	4.98	5.33
Financial	4.94	5.58
Transportation	4.86	5.71
Socializing	4.72	5.14
Law	4.70	5.70
Employment	4.68	5.23
Food and dining	4.64	5.25
Health	4.47	5.55
Parenting	4.00	6.00

4.2. Research Question 2: What Types of Social Media Do Korean Immigrants Most Frequently Use During Their Everyday Lives in the United States for Different Types of Information Needs?

To answer the second research question, the researcher collected questionnaire data to examine the most common types of information needs and associated social media among Korean immigrants. Participants were asked to identify their information needs and to provide the social media information they used for the information need. Participants ranked social media types according to their priority. For example, one participant wrote that Facebook is the top-priority social media for social information, Twitter is second, and Instagram is third. Participants were asked to type the name of social media freely. However, collected data were not used if the

website or app that participants named did not have social media functions, such as posting or replying.

4.2.1. Top Types of Social Media

As a first step, this study tried to break down what kind of social media is used in each social media. The research found that Korean immigrants do not use RSS feeds but use other types of social media frequently. Social network services (SNS) are the most-used social media type among Korean immigrants, followed by “other” options and then videos. Interestingly, many participants typed Google Maps in Other. In SNS, Facebook, Instagram, LinkedIn, and Reddit were mentioned in that order of frequency. For blogs, Naver Blog is the most commonly used platform, followed by US Blog in second place, and MissyUSA in third place. Table 17 showed how many participants used each form of social media.

Table 17. The Number of Subjects on Social Media Platforms

Social media	Number of subjects	Social media	Number of subjects
SNS	208	Blog	79
Facebook	99	Naver Blog	29
Instagram	70	US Blog	15
LinkedIn	18	MissyUSA	17
Reddit	11	Daum Cafe	7
Nextdoor	5	Milemoa	4
Naver Jisikin	2	MissyCoupons	4
Naver Cafe	1	Naver Cafe	2
Quora	1	Bensbargain’s	1
Snapchat	1	Wikis	9
Doximity	1	Wikipedia	7
Videos	138	Namuwiki	2
YouTube	138	Microblog	9
Other	152	KakaoStory	4
Google Maps	109	Twitter	4

Indeed	9	Cyworld	1
Yelp	8	Podcast	2
Tripadvisor	5	Podcast	2
WebMD	4		
Amazon	3		
Realtor	3		
FMkorea	2		
Glassdoor	2		
Handshake	2		
Zocdoc	2		
eBay	1		
RateMyProfessors	1		
Viki	1		

As a second step, this study found an average frequency of and satisfaction with different types of social media (Table 18), and then revealed each social media’s average frequency and satisfaction (Table 19). For example, video is the most frequently (5.3) used by participants, but “other” types of social media have the highest average satisfaction (5.67). Also, this study asked for details regarding individual social media platform. Excluding social media platforms used by less than 10 participants, Instagram is the most frequently visited social media, but MissyUSA has the highest satisfaction (6.0).

Table 18. Average Frequency and Satisfaction with Types of Social Media

Type of Social Media	Average Frequency	Average Satisfaction
Videos	5.30	5.52
SNS	5.03	5.26
Other	5.01	5.67
Podcast	5.00	5.50
Blog	4.10	5.39
Microblog	3.67	3.56
Wikis	3.00	5.44

Table 19. Average Frequency and Satisfaction with Social Media Platforms

Types of Social Media	Average Frequency	Average Satisfaction	Types of Social Media	Average Frequency	Average Satisfaction
SNS	5.03	5.26	Blog	4.10	5.39
Doximity	3.00	5.00	Ben's Bargain's	7.00	7.00
Facebook	4.73	5.08	Blog	4.53	5.60
Instagram	5.70	5.45	Daum Cafe	4.57	5.14
LinkedIn	4.72	5.56	Milemoa	5.50	5.75
Naver Jisikin	4.50	6.00	Missy USA	3.29	6.00
Nextdoor	5.60	5.60	MissyCoupons	4.25	6.00
Quora	5.00	4.00	Naver Blog	3.90	4.90
Reddit	3.91	5.00	Naver cafe	4.50	4.00
Snapchat	6.00	6.00	Wikis	3.00	5.44
Videos	5.30	5.52	Namuwiki	2.00	3.00
YouTube	5.30	5.52	Wikipedia	3.29	6.14
Other	5.01	5.67	Microblog	3.67	3.56
Amazon	5.67	6.67	Cyworld	1.00	1.00
eBay	5.00	5.00	Kakao Story	3.50	3.50
FMkorea	4.00	4.50	Twitter	4.50	4.25
Glassdoor	4.50	5.00	Podcast	5.00	5.50
Google Maps	5.20	5.81	Podcast	5.00	5.50
Handshake	5.00	4.50			
Indeed	4.44	5.33			
RateMyProfessors	7.00	5.00			
Realtor	5.33	6.00			
Trip Advisor	4.40	5.20			
Viki	5.00	7.00			
WebMD	4.00	5.00			
Yelp	4.25	5.25			
Zocdoc	3.00	5.00			

4.2.2. Top Information Needs and Associated Top Types of Social Media

Following the investigation into the types of social media used to fulfill information needs, the researcher created a matrix table to match the types of information needs with the most commonly used types of social media. This table provides valuable insights into which social media platforms were used most frequently for specific information needs. Table 20 shows the crosstab table of the information needs and the associated social media used by participants. Regarding information needs, education is the most commonly found information need on social media, and SNSs and videos are the most used social media for education information needs. Social information needs follow education, and SNSs are the dominant social media type in this category. Monitoring information needs were the third most common need, and SNSs and videos are the two types of social media used most often to meet this need. Interestingly, “other” types of social media were found to be widely used for fulfilling most information needs. Figure 4 shows the crosstab table.

Table 20. Crosstab Table of Participants’ Information Needs and Associated Social Media

Category	SNS	Other	Videos	Blog	Wiki	Microblog	Podcast	Total
Education	42	5	28	14	5	1	1	96
Socializing	64	7	1	1		5		78
Monitoring	31	7	24	5	1	2	1	71
Transportation	6	38	11	5				60
Health	7	11	20	11	2			51
Employment	17	14	6	2		1		40
Travel	12	17	6	5				40
Financial	7	2	16	12				37
Settlement	3	24	5	3	1			36
Law	5	3	12	10				30
Food and Dining	6	17	2	3				28
Shopping	6	6	1	5				18

Relaxation	2	1	6	1					10
Parenting				2					2
Total	208	152	138	79	9	9	2	2	597

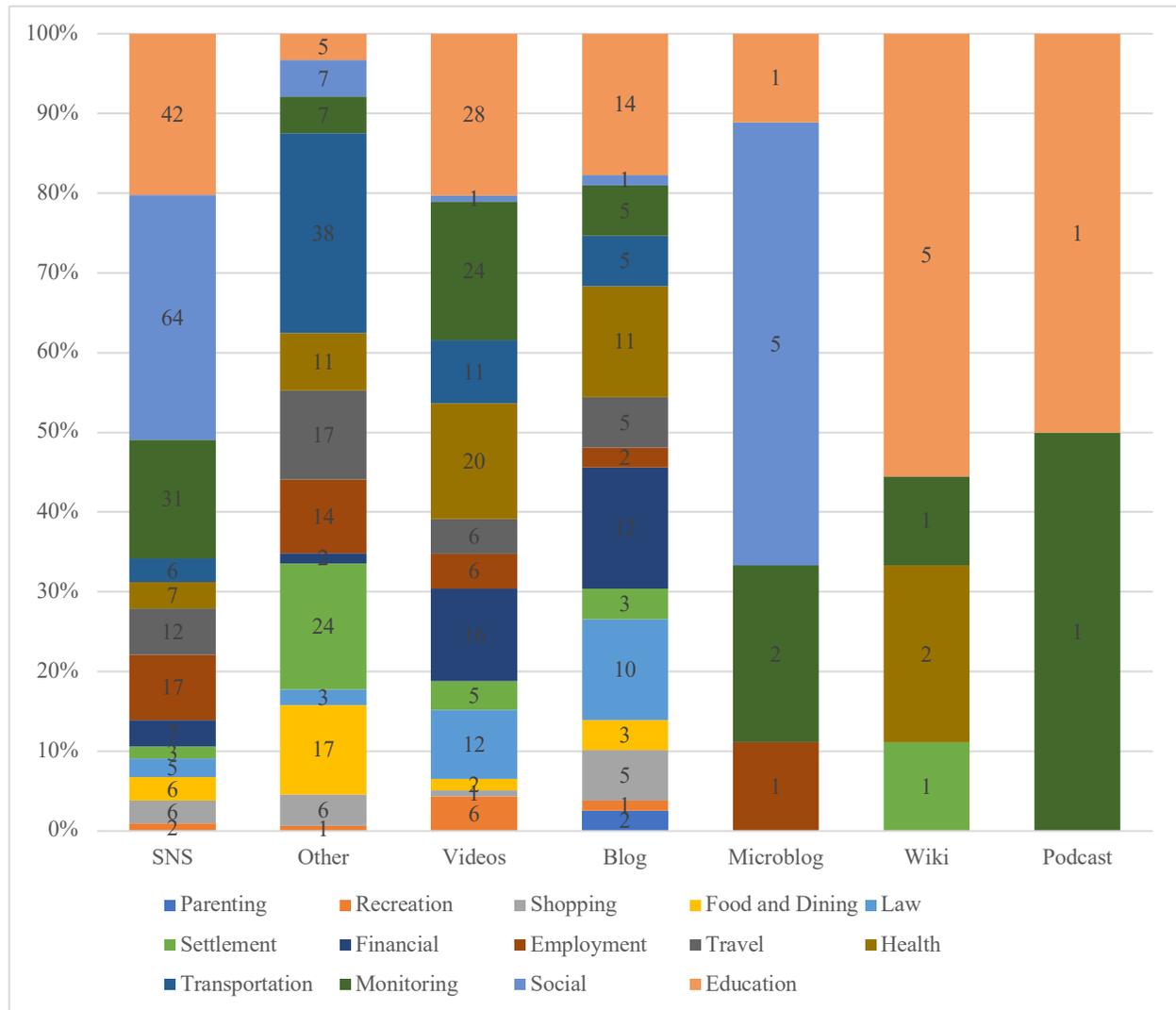


Figure 4. Percentage and Count of Participants' Information Needs by Types of Social Media

4.2.3. Top Five Information Needs and Associated Social Media Platforms

Education, social, monitoring, transportation, and health are identified as the top five information needs of Korean immigrants on social media (Table 22). Further analysis of the collected data reveals that participants utilized different social media to fulfill each of these information needs.

Furthermore, the researcher identified the top five selected social media for each of the top five information needs, as shown in Tables 21 to 25. Among the identified information needs, YouTube is the most commonly used social media for education, monitoring, and health information needs. Facebook emerges as the top social media for social information needs, while Google Maps is identified as the most frequently used social media for transportation information needs. However, the frequency of and satisfaction with each social media do not correspond to their selection by participants. For example, for education information needs, Instagram has the highest frequency of use (6.0), followed by YouTube (5.43).

Table 21. Social Media for Education Information Needs

Social Media	N	Average Frequency	Average Satisfaction
YouTube	28	5.43	5.43
Facebook	22	4.50	4.57
Instagram	17	6.00	5.19
Google Maps	4	5.25	6.75
MissyUSA	4	4.75	6.25
Naver Blog	4	3.50	5.00
Wikipedia	4	4.00	5.50

Table 22. Social Media for Socializing Information Needs

Social Media	N	Average Frequency	Average Satisfaction
Facebook	39	4.46	5.18
Instagram	22	5.64	5.41
Google Maps	7	4.14	5.29
KakaoStory	4	3.50	3.50

Table 23. Social Media for Monitoring Information Needs

Social Media	N	Average Frequency	Average Satisfaction
YouTube	24	5.25	5.29
Facebook	19	5.21	5.21
Instagram	10	6.40	5.90
Google Maps	6	5.50	5.83

Table 24. Social Media for Transportation Information Needs

Social Media	N	Average Frequency	Average Satisfaction
Google Maps	38	4.97	5.83
YouTube	11	4.64	5.73
Facebook	3	6.00	5.67
Reddit	3	4.00	5.67
MissyUSA	2	3.50	6.00

Table 25. Social Media for Health Information Needs

Social Media	N	Average Frequency	Average Satisfaction
YouTube	20	5.10	5.50
Naver Blog	6	3.83	5.83
Google Maps	4	5.50	6.75
WebMD	4	4.00	5.00
Facebook	3	4.33	5.33
Blog	3	4.00	5.67

4.3. Research Question 3: Are There Any Relationships between the Types of Social Media Korean Immigrants Select and Demographic Factors, ICT Experience Level, Cultural Factors, and Information Needs?

The result of RQ3 and its associated hypotheses are presented to identify the relationship between the types of social media that Korean immigrants selected and demographic factors, ICT experience level, cultural factors, and types of information needs. The main hypothesis of RQ3 (H_{03}) is that there is no significant relationship between selected social media among Korean immigrants and demographic factors, ICT experience level, cultural factors, and types of information needs. Collected data was not normally distributed so that Chi-square test of independence was performed.

4.3.1. H₀₃₋₁: There Are No Significant Relationships between Types of Information Needs and the Types of Social Media Used by Korean Immigrants

Table 26. Chi-square test of independence Results between Types of Social Media and Types of Information Needs

Chi-Square	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	350.246	78	<.001
N of Valid Cases	597		

Table 26 displays the relationship between types of social media and types of information needs. The null hypothesis H₀₃₋₁ is rejected. The results show a significant relationship between different types of information needs and types of social media, with $X^2(78, N=597) = 350.246$, $p < .001$. This result suggests that the selection of social media types among Korean immigrants is associated with their information needs.

4.3.2. H₀₃₋₂: There Are No Significant Relationships between Demographic Variables—Including Age (H_{03-2a}), Gender (H_{03-2b}), Education Level (H_{03-2c}), Income Level(H_{03-2d}), Marital Status (H_{03-2e}), or Parenting Status (H_{03-2f})—and the Types of Social Media Used by Korean immigrants

Table 27. Chi-square test of independence Results between Types of Social Media and Demographic Variables

Category	Chi-Square	Value	df	Asymptotic Significance (2-sided)
Age	Pearson Chi-Square	89.122	18	<.001
	N of Valid Cases	597		
Gender	Pearson Chi-Square	25.378	6	<.001
	N of Valid Cases	594		
Education level	Pearson Chi-Square	32.260	24	0.121
	N of Valid Cases	597		
Income level	Pearson Chi-Square	21.728	24	0.595
	N of Valid Cases	597		
Marital status	Pearson Chi-Square	61.873	24	<.001
	N of Valid Cases	588		
Parenting status	Pearson Chi-Square	15.709	6	0.015
	N of Valid Cases	597		

Demographic variables, including age, gender, highest level of education, income level, marital status, and parental status, were examined as sub-categories. The relationship between types of social media and demographic variables is presented in Table 27. The results indicated that the following null hypotheses are rejected: H_{03-2a}, H_{03-2b}, H_{03-2e}, and H_{03-2f}. The remaining null hypotheses are accepted: H_{03-2c}, H_{03-2d}.

The results show a significant relationship between age ($X^2(18, N=597) = 89.122, p < .001$), gender ($X^2(6, N=594) = 25.378, p < .001$), marital status ($X^2(24, N=588) = 61.873, p < .001$), a parenting status ($X^2(6, N=597) = 15.709, p = .015$) and different types of social media among Korean immigrants. These Chi-square test of independence results suggest that demographic variables such as age, gender, marital status and parenting status are associated with the selection of social media types among Korean immigrants.

4.3.3. H₀₃₋₃: There Are No Significant Relationships between ICT Experience Variables—Including Level of Search Skill (H_{03-3a}), Year of Internet Use (H_{03-3b}), Year of Social Media Use (H_{03-3c}), Frequency of Social Media Use (H_{03-3d}), and Satisfaction with Social Media (H_{03-3e})—and the Types of Social Media Used by Korean Immigrants

Table 28. Chi-square test of independence Results between Types of Social Media and ICT Experience Variables

Category	Chi-Square	Value	df	Asymptotic Significance (2-sided)
Search Skill	Pearson Chi-Square	23.587	18	0.169
	N of Valid Cases	591		
Year of Internet Use	Pearson Chi-Square	23.830	12	0.021
	N of Valid Cases	597		
Year of Social Media Use	Pearson Chi-Square	75.822	18	<.001
	N of Valid Cases	597		
Frequency of Social Media Use	Pearson Chi-Square	129.499	36	<.001
	N of Valid Cases	597		
Satisfaction with Social Media	Pearson Chi-Square	178.938	36	<.001
	N of Valid Cases	591		

Sub-categories of ICT experience were examined, including level of search skill, year of Internet use, year of social media use, frequency of social media use, and satisfaction with social media. The relationship between the types of social media and ICT experience variables is presented in Table 28. The results indicated that the null hypothesis H_{03-3b}, H_{03-3c}, H_{03-3d}, and H_{03-3e} are rejected but H_{03-3a} is accepted. The results a significant relationship between year of Internet use ($X^2(12, N=597) = 23.830, p = .021$), year of social media use ($X^2(18, N=597) = 75.822, p < .001$), frequency of social media use ($X^2(36, N=597) = 129.499, p < .001$), satisfaction with social media ($X^2(36, N=591) = 178.938, p < .001$) and different types of social media. The Chi-

square test of independence results suggest that ICT experience, including frequency and satisfaction with social media, among Korean immigrants are associated with their selection of social media types.

4.3.4. H₀₃₋₄: There Are No Significant Relationships between Cultural Variables— Including Korean Language Proficiency (H_{03-4a}), English Language Proficiency (H_{03-4b}), Cultural Aspect Assessment Score (H_{03-4c}), Year of Residency (H_{03-4d}), and Type of Residency (H_{03-4e})—and the Types of Social Media Used by Korean Immigrants

Table 29. Chi-square test of independence Results between Types of Social Media and Cultural Variables

Category	Chi-Square	Value	df	Asymptotic Significance (2-sided)
Korean language proficiency	Pearson Chi-Square	80.058	24	<.001
	N of Valid Cases	597		
English language proficiency	Pearson Chi-Square	67.885	36	0.001
	N of Valid Cases	597		
Cultural aspect assessment	Pearson Chi-Square	297.258	168	<.001
	Likelihood Ratio	280.793	168	<.001
Year of residency	Pearson Chi-Square	50.034	18	<.001
	N of Valid Cases	597		
Type of residency	Pearson Chi-Square	96.554	30	<.001
	N of Valid Cases	597		

Sub-categories of cultural variables were examined, including Korean language proficiency, English language proficiency, cultural aspect assessment score, year of residency, and type of residency. The relationship between types of social media and cultural variables is presented in Table 29. The results indicated that the following null hypotheses are rejected: H_{03-4a}, H_{03-4b},

H_{03-4c}, H_{03-4d}, and H_{03-4e}. The results show a significant relationship between Korean language proficiency ($X^2(24, N=597) = 80.058, p < .001$), English language proficiency ($X^2(36, N=597) = 67.885, p < .001$), cultural aspect assessment score, ($X^2(168, N=597) = 297.258, p < .001$), year of residency ($X^2(18, N=597) = 50.034, p < .001$), type of residency ($X^2(30, N=597) = 96.554, p < .001$) and different types of social media among Korean immigrants. These Chi-square test of independence results suggest that cultural variables, such as Korean proficiency, English proficiency, cultural aspect assessment, year of residency, and type of residency are associated with the selection of social media types among Korean immigrants.

To summarize, the study found that all four categories—type of information needs, demographic characteristics, ICT experience, and cultural aspects—were related to the types of social media used by Korean immigrants. Specifically, the type of information needs, age, gender, marital status, parental status, year of Internet use, year of social media use, frequency of social media use, satisfaction with social media, Korean language proficiency, English language proficiency, cultural aspect assessment, years of residency, and type of residency were all found to be related to the types of social media platforms. These findings are summarized in Figure 5 through Chi-square test of independence analysis.

Information Needs		Type of Information Needs	$\chi^2(78, N=597) = 350.246, p < .001$
Demographic	Age		$\chi^2(18, N=597) = 89.122, p < .001$
	Gender		$\chi^2(6, N=594) = 25.378, p < .001$
	Education Level		$\chi^2(24, N=597) = 32.260, p = .121$
	Income Level		$\chi^2(24, N=597) = 21.728, p = .595$
	Marital Status		$\chi^2(24, N=588) = 61.873, p < .001$
	Parenting status		$\chi^2(6, N=597) = 15.709, p = .015$
ICT Experience Level	Search Skill		$\chi^2(24, N=591) = 23.587, p = .169$
	Year of Internet Use		$\chi^2(12, N=597) = 23.830, p = .021$
	Year of Social Media Use		$\chi^2(18, N=597) = 75.822, p < .001$
	Frequency of Social Media Use		$\chi^2(36, N=591) = 178.938, p < .001$
	Satisfaction of Social Media		$\chi^2(6, N=597) = 15.709, p = .015$
Culture	Korean Language Proficiency		$\chi^2(24, N=597) = 80.058, p < .001$
	English Language Proficiency		$\chi^2(36, N=597) = 67.885, p < .001$
	Cultural Aspect Assessment		$\chi^2(168, N=597) = 297.258, p < .001$
	Year of Residency		$\chi^2(18, N=597) = 50.034, p < .001$
	Type of Residency		$\chi^2(30, N=597) = 96.554, p < .001$

Types of Social media

Figure 5. Chi-square test of Independence Result Between Factors and Types of Social Media

4.4. Research Question 4: What Factors Influence the Selection of Types of Social Media among Korean Immigrants?

To address RQ4, once the data were collected from questionnaires, diaries, and interviews, the open coding method was employed to identify the factors associated with the selection of social media by Korean immigrants. As a result, 167 comments related to the selection of types of social media were grouped into six factors. Among the factors, the type of information need was

the most frequently mentioned in interviews and diaries. Table 30 shows the coding results, and Figure 6 shows the frequency of the six factors.

Table 30. List of Factors Associated with Selecting Types of Social Media

Factors	Definition
Social network influence	The method of seeking and sharing information within one’s social network of friends, family, or organizations
Information needs	The specific information that an individual or group requires to meet their goals, solve problems, or make informed decisions
Information format	The way in which information is presented, organized, and communicated, such as text or video
Information quantity	The amount of information available or needed for a particular purpose or task
Culture	The interconnection between the system of communication and the shared beliefs, values, and practices of a group of people, such as language proficiency and cultural intimacy
Review	An evaluation or assessment of something, typically a product, service, or performance, based on personal experience or opinion

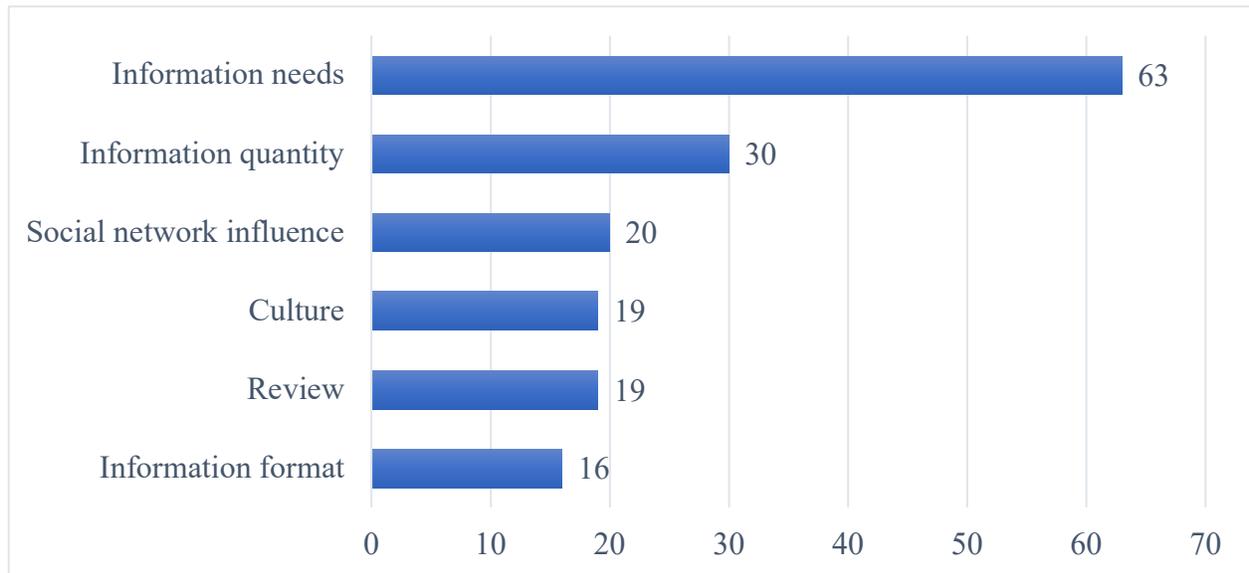


Figure 6. Frequency of Factors Associated with Selecting Types of Social Media

4.4.1. Social Network Influence

Participants liked to select the same social media that friends and family used. For example, if more friends used Instagram, they liked to select Instagram.

For example, Participant 83 (P83) chooses to use Instagram because his friends use Instagram:

So now, about your diary, you wrote you saw a lot of news through Instagram, and I have a question. Is it because your friends use Instagram? (Interviewer)

Yes, that's right. Almost every friend uses Instagram, so it's very convenient to access. (P83)

Participant 40 (P40) expressed a preference for receiving news and updates from friends through Facebook rather than Twitter, as many of his friends are active on Facebook and regularly share their activities on the platform:

Twitter and Facebook are a bit different. Twitter has more friends who are academic, and through those friends, I get a lot of information related to academics or job-related information. As for Facebook, I mainly use it to communicate with friends. First of all, I can easily check the daily lives of friends I occasionally contact, so I often look at it. And I think it's because it's much easier to check through social media. I just clicked the notification. I don't know about other things, but the easiest thing to do is to just log in and quickly glance at the content. And because most of my friends post their daily lives easily, I can see it right away just by logging in, so that's why I use it. (P40)

4.4.2. Information Format

Information format was another main factor affecting the selection of social media. Participants preferred to watch videos rather than read articles in certain situations, such as following instructions or learning something that they needed to do physically.

Participant 11 (P11) emphasizes that video can give indirect experience that text cannot give when she wants to find a place to visit:

I think that explaining with videos can make it easier to understand because when the video and narration explain together, it can be more effective. For example, for travel-related content, it has its limitations when it's just written text. However, if you watch a video created by a travel YouTuber, you can indirectly experience the trip and get a better sense of what it looks like than just [by] reading about it. That's why I think many people enjoy watching YouTube videos. (P11)

In addition, participants enjoy using YouTube to watch instructional videos for tasks such as home repairs or cooking, as the step-by-step format makes it easy to follow along.

Participant 24 (P24) explained why they use videos on YouTube:

For example, if you need a plumber and even if they're expensive, I had to hire them because I couldn't do it myself. If you read about plumbing, it's hard to understand what it means, but if you just follow the video, it's easy to understand. So, when I watch YouTube, no matter what type of information it is, I find it helpful to watch and follow along step by step. Even when I had to fix the toilet, I watched a video to do it. (P24)

4.4.3. Information Need

The primary factor influencing the selection of social media by Korean immigrants was their information needs, which was found to correlate with the types of social media used, as per H03-1 in RQ3. The participants cited various purposes for choosing social media, such as obtaining information related to education, leisure activities, and travel. Specifically, they mentioned needing information on entertaining themselves, discovering events in their vicinity, acquiring knowledge, and staying updated about the activities of their families and friends.

First, participants expressed that they are looking for information regarding education for themselves or their children. They are focusing on searching for education information when they use social media if they want to find something and browse the results. Participant 1 (P1) explained why she uses YouTube:

I am a homemaker, so I think the most difficult thing for me was finding information about my children's entrance exams or school information. In big cities, there is a lot of information available on MissyUSA, but since I live in a small city, it was difficult to find information on those things... On YouTube, I can get a lot of information about university-related topics. (P1)

Also, participants mentioned that they liked to browse or search information regarding their relaxation activities on multiple social media, such as Instagram or YouTube. Participant 30 (P30) expressed that she likes to receive feeds about recipes and sometimes tries to search for specific recipes using hashtag searches:

The reason is that the information I am mainly interested in is related to recipes, so I mostly search for them through one social media [platform], which is Instagram. Of course, I use other social media platforms as well, but mostly I just browse the feed on Instagram instead of searching for specific information. (P30)

P24 answered that one of the reasons she selected Facebook for living in the United States was that there is a Facebook group for her local community, and she wanted to find valuable information regarding living in that area:

In the case of village life, we have a Facebook group page where people who live in this village can share village life information. Almost everyone keeps updating the group page with the latest news and issues related to the village. I mostly check the feed to see what's going on. For example, when the garbage collection company changed, the date for disposing of the garbage changed as well. When there was a power outage, people would share that their house was affected, too. Someone would investigate and find out that the power company said the power would be back on at 12 o'clock. People shared this information continuously. That's why I saw a lot about village life on the Facebook group page. (P24)

Participant 1 (P1) remarked that she likes to visit YouTube for learning about U.S. culture and information about universities that her children might enroll at:

In the case of YouTube, I obtain a lot of information related to universities and also things related to American culture... Now that I live here, I have to know a lot about American culture, so I search for that kind of information. Also, if I want to mingle with American culture, I need to know a little about sports, so I am also looking for information about sports. (P1)

Also, participants used social media for finding information about their families' and friends' activities. Participant 75 (P75) said he uses Facebook when he wants to find recent information about friends:

I mostly use it to see how my friends are doing, what they are up to, or to find people I haven't been in touch with for a while. Sometimes I use it to find people I don't have phone numbers for. (P75)

4.4.4. Information Quantity

Some participants tended to select social media based on information quantity. They wanted to use social media that could provide them with abundant information relevant to their search queries. If they couldn't find what they were looking for on a familiar social media platform, they had a specific goal in mind and would switch to other social media that offered more relevant information.

Participant 2 (P2) liked to search on YouTube because it has many music scores and information on how to play them:

Then, I usually watch social media platforms like YouTube for things like music scores. For example, when people from other churches perform church events, orchestras, and such, I can find a lot of information by searching for sheet music and videos on how to conduct or perform. Many people upload these kinds of videos. (P2)

Also, Participant 25 (P25) complained about the difficulty of finding information related to new things in the United States. He changed social media when he tried to find new information that was not popular in Korea. As a result, he tries to find information on YouTube, which contained much information regarding these new things. For example, he described:

We went on a cruise twice, but as you know, cruises are not very common in Korea. So, even though we searched for information at Naver Cafe, there wasn't a lot of detailed information available. Instead, when we searched for cruise information on YouTube, we found many videos uploaded by Americans who know how to enjoy cruises. (P25)

4.4.5. Culture

Participants emphasized that cultural affiliations, especially language, led them to select certain social media due to language preference or cultural intimacy. Participants expressed that reading Korean postings was easy and gave them a quicker and deeper understanding and more satisfaction. For example, Participant 26 (P26) explained why she selected Naver Blog:

In the case of things like home appliances, there are people who provide very detailed reviews on social media platforms, and there are some unique standards among Korean users when it comes to things like food or cleaning, because the way Americans live is different. Even something like cleaning with water is different. When it comes to shopping information, I tend to look at Korean community boards within the U.S. for products that can be purchased in the U.S., especially if it's related to household items, because those boards tend to be heavily used by women. (P26)

She likes to read reviews or comments in Korean because Koreans have different standards than Americans do. Information needs due to different living styles thus affect the selection of social media.

Language proficiency also influences the selection of social media. Participant 12 (P12) prefers to search for videos created by Koreans on YouTube because he can understand them well:

So, even though we're not fluent in English, we still study it and try to look things up on Google. But sometimes we don't understand things very well. These days, there are a lot of people who provide information in Korean on YouTube about the U.S. So, I try to find and watch those videos to better understand things. (P12)

4.4.6. Reviews

Reviews are another critical factor when participants selected social media. They were curious about what other people thought. Therefore, when trying to find information on things like travel, shopping, or restaurants, participants were very interested in the opinions of others, and reviews and opinions were one of the main reasons why they choose certain social media, such as Google Maps and Yelp. For example, P2 explained why she selected Google Maps:

In the past, before social media became popular, I asked people around me to find out where to go and what's good. But now, if I want to go to Atlanta and I'm looking for good restaurants or tourist attractions, there is a lot of information available. So, I search for those things and then I look at the number of stars first, and if there are any reviews, I read them. The same goes for places like museums in New York. I look at reviews to see what's good, and if there's an exhibit by a famous artist like Banksy, I'll go check it out. So, I rely on those kinds of sources a lot. (P2)

In other words, she was used to relying on gathering opinions from people she knew, but now she uses reviews to search for good places to visit.

Similarly, P25 cited reviews and ratings as one of the reasons to use Google Maps.

Reviews and Dislikes. There are so many of these things. I don't trust high ratings so much, but I trust low ratings... These things like restaurant ratings are very subjective, so I just take them with a grain of salt. But when it comes to low ratings, I tend to trust them more absolutely. (P25)

According to his comments, he uses reviews and ratings on Google Maps to avoid bad places and narrow down his search for good places to visit.

4.5. Research Question 5: How Do Korean Immigrants Use Social Media for Finding Information During Their Everyday Lives in the United States?

RQ5 examines Korean immigrants' use of social media for gathering information during their everyday lives. To address RQ5, the open coding method was again employed to find how Korean immigrants use social media. Mainly, interview and diary data were used in the coding process. As a result, 160 comments related to how Korean immigrants use social media were grouped into six use styles. Among the styles, searching keywords and then browsing on a platform was the most frequently mentioned in interviews and diaries. Table 31 shows the results of the coding, and Figure 7 shows the frequency of the six use styles.

Table 31. List of Use Styles of Social Media

Types of social media use	Definition
Ask a question	Ask questions and have an answer on social media
Click a feed/subscribe notification	Click a notification and see a post when a feed was notified
Click a hashtag	Search by clicking hashtag
Browse or scroll	Open social media and start to browse or scroll up and down the list that a platform provided
Click a social media link on the results list from a search engine	Search on a search engine like Google at first, and then click on a social media post on the search result
Search a keyword	Use a search box in a social media and then browse the result list

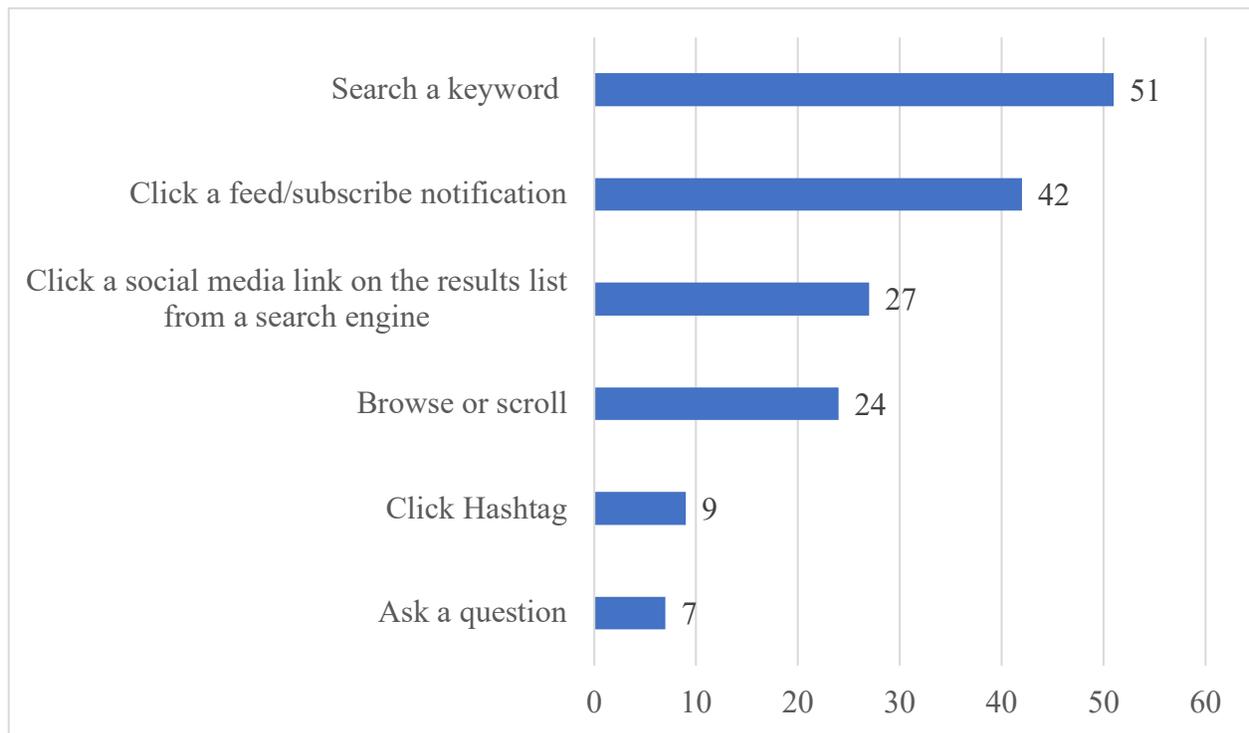


Figure 7. Frequency of Use of Social Media

4.5.1. Ask a Question

Asking a question is one of the less common approaches for participants to use social media.

When participants did not know what kind of thing they should buy or wanted to know something in Korean, they asked in a Korean community group on Naver or Facebook. For example, Participant 9 (P9) recalled:

I think I mainly searched for things that were necessary for daily life. But for example, even for things like laundry detergent or shampoo and lotion, they are all so different from what we use in Korea, so I didn't know much about them and had to look them up, then I ask by posting a question. (P9)

P25 similarly asked questions regarding where or how to fix the screen of his phone:

Regarding getting my phone screen fixed, there wasn't much information available about where to get it fixed or if we could get a phone purchased in Korea fixed here. But I found some helpful information on the Naver Mizunmo community. I went there and asked around, and based on my experience of getting it fixed there, I received some help. (P25)

Similarly, participants use social media to communicate with coworkers:

In general, for personal social communication, when I want to communicate with other coworkers and find out how they are doing, I use Facebook or WhatsApp or Instagram to exchange news and just catch up. (P12)

4.5.2. Click a Feed/Subscribe Notification

Clicking notifications for feeds and subscriptions is the second most popular type of social media use among participants. All participants used this style. When they receive a notification, they click the notification and read the post. They like to see recent posts from their friends, families, coworkers, or organizations, or watch videos from social media influencers to whom they subscribed. For example, P40 described how he uses Twitter through feed notifications:

I don't really search on Twitter because I check it once a day or have notifications set up. Since I have a lot of connections with other professors or association members in my field, I get a lot of pop-ups that I can quickly skim through. (P40)

The feed notification feature also allowed participants to monitor news from their home country or local areas. P1 uses this feature to stay up-to-date with the latest news from their local area and from South Korea.

Personally, I follow Wisconsin News Box 6 or other sources related to Wisconsin or the U.S. to get information. And even for Korean news, if I just click, I can see the news without having to specifically search for it. (P1)

Furthermore, notifications increased the likelihood of receiving social information, such as updates on friends' or family members' recent activities. For example, Participant 16 (P16) uses Facebook as a way to connect with friends:

On Facebook, rather than searching for information, I think it's mostly about connecting with friends and such... I usually check how my friends are doing or good events that are often posted on Facebook when I get notifications. (P16)

Additionally, notifications help participants receive their desired information conveniently. P26 utilizes the feed notification feature on YouTube to receive their favorite information conveniently, without the need for manual searching:

Because I have a few channels that I am subscribed to, for example, related to pets and topics that I am interested in. So, when there's new content, it automatically shows up. (P26)

4.5.3. Click a Hashtag

Participants often use the hashtag feature on social media platforms as a way to enhance their searches. Unlike traditional search boxes where users have to type in keywords, users can simply click on hashtags defined by the uploader to search for any posts that have the same or similar hashtags. Some participants prefer to click on hashtags when they wanted to find more information related to the hashtag. Once the hashtag is clicked, the user browses the list of search results provided. P30 explained why she uses Instagram and how to use hashtags:

Of course, I use other social media platforms as well, but mostly I just browse the feed on Instagram instead of searching for specific information. However, when I need to find specific information like recipes, I use hashtags to search for it once, and then continue browsing. (P30)

Also, P24 wrote in a diary, she uses hashtags to search for locations she wants to go to:

After click [hash]tag of the city name or autumn leaves, I looked through the recently uploaded photos on Instagram. (P24)

4.5.4. Browse or Scroll

Browsing or scrolling often involves simply clicking or logging into the social media application and using it without actively searching for anything specific. Users typically browse or scroll through the list of content provided and sorted by the platform's algorithms. They might like to check the list of content that matches their interests because they think that those contents might have some interest. Participant 71 (P71) explained during the interview why he wrote "browsing" in response to the usage techniques question in his diary:

So, rather than searching for things separately, I browse through the videos and clips that are recommended by the algorithm. (P71)

Similarly, Participant 8 (P8) mentioned their reason for browsing:

If I like a few videos in a certain category, then more videos in that category automatically show up for me. It's just algorithmic, and videos related to my interests just show up. (P8)

P82 wrote that he clicks on and watches content on Instagram during his break time. He likes to see the posts provided when browsing Instagram. He explained during the interview:

You wrote that you find a lot of things interesting. You also wrote interesting videos, food-related content, restaurants, recipes, travel destinations, and local spots to visit. Rather than actively searching for these things, it seems like you mostly just look at what pops up. Right? (Interviewer)

Yes, that's right. (P82)

You're not actively seeking them out. (Interviewer)

Right, it's more like the platform is recommending them to me. (P82)

4.5.5. Click a Social Media Link on the Results List from a Search Engine

Interestingly, some participants prefer to use external search engines such as Google or Naver. After generating search results, they click on social media links that appear on the search result list if the title of the result seems relevant to their needs. P26 described why she uses Google Search to find information on Reddit and blogs:

So, I do a Google search and then click around within the post and keep reading. Sometimes I do search within the message board, but I probably end up reading more posts within the message board, since I likely found related message board posts through the Google search. For example, American blogs have too many ads within the posts, so sometimes I had to go back because of those ads. (P26)

P8 also mentioned that Google search is where she starts, but she moves to YouTube if a video is relevant:

At first, I would do a Google search... Since what I really want doesn't always show up right away, I have to search several times to get the information I need. I have to search at least three or four times to find what I'm looking for. If there is a YouTube video, I click to watch if it seems to be relevant. (P8)

4.5.6. Search a Keyword

This is the most common method that the participants use to find information on social media. They search for keywords directly on social media instead of using external search engines. Afterward, they browse through the list of search results within the social media platform. When they have information needs related to shopping, food and dining, housing, or entertainment, they conduct their search directly on social media. For example, P26 searched in Korean online community blogs when she wanted to buy an e-book:

But even for shopping, there are certain products that are more popular in Korea, for example, one of the episodes I wrote in my diary was about wanting to buy an e-book reader because I wanted to read Korean books. So, I wanted to buy a different e-book reader than Kindle. In these cases, I now do a lot of searches on Korean Naver Blogs or

other similar sites because for these types of cultural and Korean-specific products, I need Korean perspectives and reviews. (P26)

Furthermore, P9 mentioned that “searching” is the first step in her strategy for using social media. She uses Naver Blog and Café to find information written by Koreans, and searches online communities to find information about living, including education and shopping:

I think I mainly searched for things that were necessary for daily life. But for example, even for things like laundry detergent or shampoo and lotion, they are all so different from what we use in Korea, so I didn’t know much about them and had to look them up or ask by posting a question. I think I mostly searched for information about living in the U.S. (P9)

One interesting aspect of searching is that many participants use Google Maps and Yelp to find restaurants, places to visit, and stores because they want to read reviews about those places. P1 mentioned that their reason for using Google Maps was the ratings:

I think because I’m in the U.S., I don’t know where to find good food that I haven’t tried before. So, I tend to look for places that have good ratings and are clean. I might consider going there too after checking it out on Google Maps and seeing if it looks good. I use apps like Yelp to check the ratings before going to a restaurant, and I read reviews to see what people are saying about the food, not just about the traffic. I compare different restaurants based on their ratings, comments, menus, and even the photos people have posted of their food. It’s not just about finding the closest restaurant anymore—it’s about doing my research and making an informed decision. (P1)

P2 also uses Google Maps for checking a business’s rating and reading its reviews after searching:

If I want to go to Atlanta and I’m wondering what’s good there, there’s a lot of information available about restaurants, travel, and tourist attractions. So, I search in that direction, and then if I’m going to a restaurant or something like that, I check how many stars it has first, and then I look at the reviews that people have written. (P2)

Furthermore, P12 mentioned using Google Maps to find directions and also to look up local information about the destination:

Living in the U.S., the most useful information for us seems to be from Google Maps, where driving information to different places is available. Also, local information is important for us when we travel. For example, if we travel to Denver, we look for information about Denver. (P12)

P26 also emphasized why Google Maps is searched often:

In daily life, people often use Google Maps to search for shopping-related information such as purchasing products and finding places to visit or go. (P26)

4.6. Research Question 6: What Factors Influence Korean Immigrants' Social Media Use for Information Seeking in Their Everyday Lives in the United States?

RQ6 explores what factors affect how Korean immigrants use social media for gathering information during their everyday lives. To address RQ6, the open coding method was again employed to find factors that influenced how Korean immigrants use social media. Mainly, interview and diary data were used in the coding process. In the coding, 177 comments related to factors that influenced how Korean immigrants use social media were grouped into six main factors. Among the factors, the relevance of results was the most frequently mentioned in interviews and diaries. Table 32 shows the result of coding, and Figure 8 shows the frequency of the six factors.

Table 32. List of Factors Associated with the Use of Social Media

Factors	Definition
Algorithm	The set of rules or procedures that govern how content is ranked, organized, and displayed to users on the social media platform
Features	Functions that users want to use in a social media
Filtering information amount	The process of selecting and limiting the amount of information they received
Relevance of results	Accuracy of search results after entering a search keyword or the accuracy of the list of contents provided by a social media platform
Speed of information delivery	Quickness of receiving information from a social media platform

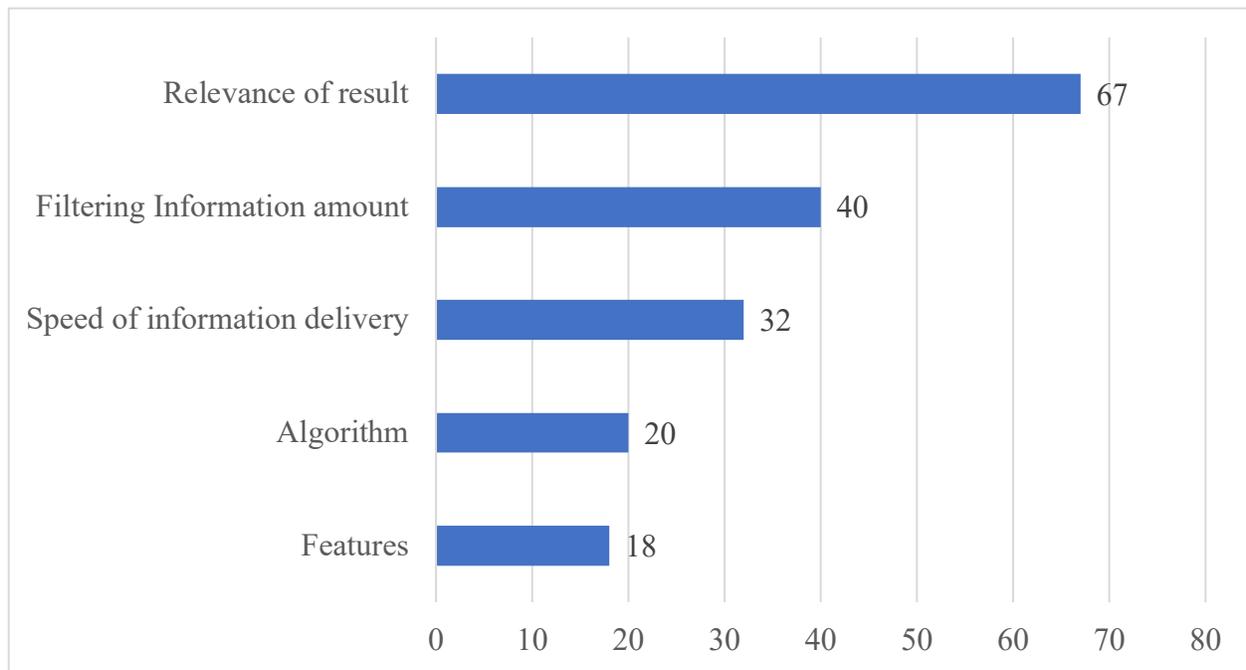


Figure 8. Frequency of Factors Associated with the Use of Social Media

4.6.1. Algorithm

Participants who like to browse or scroll mentioned algorithms. They believe that the algorithms of each platform generate a list of content that is relevant to their information needs and interests, and that's why they find the browsing or scrolling experience useful. P71 mentioned that an algorithm gives him suggestions based on what he has watched before:

There's an algorithm that suggests videos based on what you've watched before. So even though I don't pay much attention to it, I used to like animals, so I ended up watching a lot of videos about pets, like dogs and cats, and mostly sports. So, rather than searching for things separately, I browse through the videos and clips that are recommended by the algorithm... Most of the time, when I search on YouTube, a lot of information comes up. As I continue to search, the algorithm starts to show me more and more, so I see a lot of things that are suggested by the algorithm. (P71)

P8 also felt that social media automatically provides what they look for:

Recently, I've noticed that YouTube automatically shows me content based on the time of day, whether it's sermons, music, or work-related videos. If I like a few videos in a certain category, then more videos in that category automatically show up for me. It's just algorithmic, and videos related to my interests just show up. (P8)

So, you don't really search for them, you just browse and they appear based on your interests. (Interviewer)

Yes. (P8)

Some participants like to read posts provided by an algorithm because it focuses on their subjects of interest. P82 explained how he feels about one algorithm and why it helps to browse:

There are a lot of interesting things that I come across through the platform's algorithm, so I end up using it quite a bit. (P82)

You wrote that finding a lot of things interesting. You also wrote interesting videos, food-related content, restaurants, recipes, travel destinations, and local spots to visit. Rather than actively searching for these things, it seems like you mostly just look at what pops up. Right? (Interviewer)

Yes, that's right. (P82)

You're not actively seeking them out. (Interviewer)

Right, it's more like the platform is recommending them to me. (P82)

Those recommendations just come up automatically on Instagram, right? (Interviewer)

Yes, and in my experience, if I keep watching things that I'm interested in, the algorithm will keep showing me similar content. (P82)

4.6.2. Features

Several participants mentioned that they enjoy using certain features, such as Instagram DMs and Stories, as well as Facebook and Instagram Stories, because they find them useful when browsing or asking for content that interests them. Additionally, some participants mentioned that they enjoy clicking on advertisements while browsing, as they often lead to products the participants are interested in purchasing. P11 explained how to use Instagram stories during the interview after the researcher asked about her use of Instagram for shopping, as mentioned in her diary:

And what about shopping? Did you search for information on Instagram for shopping, and when an ad pops up, did you click on it and go see it? (Interviewer)

Yes, this is the Instagram story function. When I swipe, even if it's not my friend's ad, the ad pops up. If there is a link included in it, I click on it and go directly to the homepage if I want to see. (P11)

Several participants find it helpful to ask questions or make posts on social media to obtain the information they are looking for. They particularly enjoy asking questions within Korean online community blogs and cafes. P25 explained why he likes to ask questions and write posts on social media:

So, we mainly used a Naver Cafe called “Mijunmo,” which is very active for people preparing for immigration, U.S. employment, study abroad, and travel. We asked a lot of questions there, like asking for addresses of specific areas and about safety in certain neighborhoods, and many people were kind enough to provide helpful answers. (P25)

P9 had the same reason for posting features on Naver Blogs:

So, I didn’t know much about them and had to look them up or ask by posting a question. (P9)

4.6.3. Filtering Information Amount

Participants expressed that there is an overwhelming amount of information in the world, even within social media. They desire to receive only the information that they are interested in and tend to ignore irrelevant content. Their focus is on information from sources such as friends, family, and subscriptions. Alternatively, they tend to reduce information sources by narrowing what they look for, such as local information or reviews from Koreans. P1 expressed that she receives only the information she is interested in because she subscribes to specific sources:

Since I follow certain accounts, I only receive information from those accounts, so it’s what I want to receive to some extent. In that sense, it shows me very useful information that I would be interested in, so it’s not a waste of time and I can see a lot. (P1)

P83 expressed a similar sentiment, stating that they mostly look up information about their friends and subscribe to news accounts on Instagram:

The two things I look up the most are first, what my friends are doing and how they’re living, and second, news. I subscribe to news accounts on Instagram and other places and I check them every time I go on. (P83)

Furthermore, participants limit their sources to find information to browse quickly. P24 described their experience browsing information on a Facebook group for their local community:

Living in the town, we have a Facebook group page where people in the town can share information related to town life. Many people update the group with immediate and important issues related to town life, such as changes in garbage collection days due to a company change or power outages affecting multiple households. People share these types of issues as soon as they arise, and I mainly just browse through the feed. (P24)

4.6.4. Relevance of Search Results

The relevance of search results that appear when searching for information needs was found to be the most significant factor affecting the types of social media use, particularly when searching for information. Many participants rely on the “Search” function to find information on social media, as it provides a list of search results that are relevant to their needs and interests. They search for keywords within the social media platform, click on hashtags to gather information related to the hashtag, or start their search from external search engines such as Google or Naver. However, the relevance of search results and satisfaction with those results are very subjective, so there are some conflicting opinions among participants. P1 briefly explained why she uses Google Maps and Yelp instead of YouTube:

I’m trying to find a restaurant in this neighborhood, but I can’t search for it on YouTube because there was no information. So now, I’m using Google Maps and Yelp to find it. (P1)

She also mentioned a problem she encounters while searching on YouTube:

When I search for information on YouTube, it’s not easy to find exactly what I want. So, just looking at the thumbnail doesn’t satisfy me, and YouTube is a bit unsatisfactory in that regard. (P1)

P83 expressed similar sentiments and provided more details on why he prefers to use Google search rather than searching directly on YouTube:

I usually find a lot of necessary information by searching and exploring YouTube, but sometimes when I search for things that are lacking in information or not of interest to

many people, irrelevant results keep popping up, which can be inconvenient when trying to find the necessary information. (P83)

In contrast, P25 is satisfied with searching on YouTube because he finds many relevant videos by Koreans:

I searched on YouTube and found that many Korean realtors in the U.S. are making videos to introduce homes to Korean clients. These videos are useful for those who are planning to move to the U.S. or for short-term visits for work or travel. (P25)

P16 also likes to search on YouTube:

Sometimes when I don't understand how to use a certain machine, for example, if I buy a mixer and don't understand how to operate it, I read the directions and search on YouTube for the name of the device in Korean. I can easily find videos on how to use it in Korean, as well as usage reviews... When I search on YouTube for something I'm curious about, there are things like news videos that come up. (P16)

4.6.5. Speed of Information Delivery

Speed of information delivery is one of the main reasons participants use feeds. Fast information delivery is how users can receive the information they want. Participants like to receive recent information regarding their friends and family or their interests. P12 mentioned the importance of the feed function and the speed at which they can check feed notifications:

On Facebook, rather than searching for information, I think it's mostly about connecting with friends and such... I usually check how my friends are doing or good events that are often posted on Facebook when I got notifications. (P12)

P30 likes to receive new content as soon as possible, so she uses notification. She wrote "Spring when a new manga pops up (no search required)" in her diary, and she provided a more detailed explanation in the interview:

I like to read manga and want to see a new book as soon as possible. I generally read newly published mangas when I receive a notification from Instagram. (P30)

4.7. Summary of Chapter 4

This chapter explored six research questions and their corresponding hypotheses, utilizing quantitative methods and additional qualitative data analysis. First, the top types of information needs on social media that Korean immigrants fulfill during their everyday lives in the United States were revealed in RQ1 by descriptive analysis and open coding. The researcher conducted a study on Korean immigrants to identify their most common types of information needs in the United States. In the data collection, a questionnaire with pre-categorized options was used but allowed participants to add additional information needs. Five new categories emerged: relaxation, shopping, travel, food and dining, and parenting. Education was the most popular information need on social media, followed by monitoring information and socializing.

Second, this study found the types of social media that Korean immigrants most frequently use during their everyday lives in the United States for different types of information needs in RQ2. The researcher collected questionnaire data to identify the most common types of information needs and associated social media used by Korean immigrants. Participants identified their information needs and provided the social media they used to fulfill those needs. SNSs were the most commonly used social media type, with Facebook, Instagram, LinkedIn, and Reddit mentioned in that order. A crosstab table was created to match information needs with the most commonly used types of social media. Education, socializing, monitoring information, transportation, and health information were identified as the top five information needs, with YouTube being the most commonly used social media platform for education, monitoring, and

health information. However, the frequency of use of and satisfaction with each social media platform did not always correspond to its selection by participants. Instagram had the highest frequency rate for education information, followed by YouTube.

Third, this study investigated the relationship between the types of social media selected by Korean immigrants and several variables, including demographic factors, ICT experience, cultural factors, and information needs in RQ3. A Chi-square test of independence was conducted due to the non-normal distribution of the collected data and nominal categories, and the results showed a significant relationship between different types of information needs and types of social media. Demographic variables, such as age, gender, marital status, and parental status, were found to be associated with the selection of social media types among Korean immigrants. Among ICT experience variables, year of Internet use, year of social media use, frequency of social media use, and satisfaction with social media was found to be associated with the selection of social media types. Cultural variables, such as Korean language proficiency, English language proficiency, cultural aspect assessment score, year of residency, and type of residency were also associated with the selection of social media types among Korean immigrants. Several null hypotheses were rejected, indicating significant relationships between the variables examined and the selection of social media types among Korean immigrants.

Fourth, open coding was used to identify factors associated with the selection of social media among Korean immigrants in RQ4. Data were collected from questionnaires, diaries, and interviews. 167 comments were grouped into six factors: social network influence, information format, information needs, culture, information quantity, and reviews. Participants selected

social media based on social network influence, the format of the information they were seeking, the information they needed, their language and cultural preferences, the quantity of information available, and reviews.

Fifth, this study showed how Korean immigrants use social media to gather information in their everyday lives in RQ5. The open coding method was used to group participants' comments into six usage patterns, including asking questions, clicking feed/subscribe notifications, clicking hashtags, browsing or scrolling, clicking social media links via a search engine, and searching keywords on the social media. The most common method used by participants is to search keywords on the social media, especially when they need information related to shopping, food and dining, housing, or entertainment.

Lastly, this study aimed to identify the factors that influence Korean immigrants' social media use in their lives in the United States in RQ6. The five factors the question identified are algorithms, features, filtering information amount, relevance of search results, and speed of information delivery. Participants relied on the algorithm to suggest content, enjoyed certain features like Instagram DMs and Stories, and limited their sources to obtain relevant information quickly. The relevance of search results and the speed of information delivery were crucial factors that influenced social media use. Participants desired only the information that they were interested in, ignored irrelevant content, and searched for information relevant to their needs and interests.

Chapter 5. Discussion

5.1. Introduction

The objective of this mixed-method research is to answer what types of information needs Korean immigrants have on social media and how they select and use social media in their everyday lives in the United States. To answer this main question, this study identified six research questions: 1) what information needs Korean immigrants have on social media; 2) what social media Korean immigrants select for meeting their information needs; 3) what relationships exist between types of information needs, demographic factors, ICT experience, cultural factors, and types of social media chosen; 4) what factors are associated with selecting types of social media; 5) how Korean immigrants use social media to find information; and 6) what factors are associated with the use of social media among Korean immigrants. The following sections examine the results and provide key findings as well as the theoretical, practical, and methodological implications of the study, along with its potential contributions to the existing literature. The limitations of the study are also acknowledged, and suggestions for future research are provided.

5.2. Highlights of the Key Findings

5.2.1. New Information Needs

In this study, the information needs of immigrants were categorized using pre-defined categories based on previous research by Shoham and Strauss (2008) and Suh and Hsieh (2019) that encompassed eight types of information needs, along with monitoring information defined by Caidi et al. (2010). However, participants in the study also identified additional information

needs, which were included in the analysis. Through open-ended questions in the questionnaire, five new information needs were identified, including relaxation, shopping, travel, food and dining, and parenting. These needs were also mentioned by participants during diaries and interviews, where they reported using social media to search for and browse relevant information. Additionally, participants described utilizing Korean online communities such as Naver Blog/Café to read reviews and ask for recommendations on purchasing products. This study confirms Bigdeli (2007), which found that users have varying needs and requirements for bridging knowledge gaps, as their situations and circumstances differ from one another.

5.2.2. Selection of Social Media According to Information Needs

This study also provided insight into the specific social media platforms most frequently used by Korean immigrants. The results revealed that SNSs are the most popular type of social media, followed by videos. Interestingly, other types of social media not included in the initial questionnaire are also extensively used, particularly Google Maps. Furthermore, Korean immigrants select different social media for different information needs. When seeking education information, Korean immigrants primarily turn to SNSs, followed by videos and blogs. In particular, YouTube and Facebook are popularly used, confirming the findings of previous literature (Suh & Hsieh, 2019). Conversely, when Korean immigrants are looking for information related to socializing, SNSs are the preferred choice. For monitoring their surroundings, Korean immigrants most often choose SNSs and blogs. Regarding specific social media platforms, Korean immigrants prefer YouTube for education, Facebook for socializing, YouTube for monitoring information, Google Maps for transportation, and YouTube for health information. The study also explored the relationship between types of information needs and

social media usage among Korean immigrants, and the statistical results (shown earlier in Table 26 above) show that there is a significant relationship between the types of social media that are chosen and the types of information needs.

In qualitative analysis, this study found specific factors that correlate with choosing a certain social media platform for meeting Korean immigrants' information needs. The most frequent factor was the type of the information need. The participants identified several reasons for selecting social media, including obtaining information about education, relaxation activities, and travel. More specifically, they stated that they sought information on topics such as entertainment, local events, gaining knowledge, and staying up-to-date on the activities of their friends and family.

5.2.3. Multiple Factors Associated with the Selection of Social Media

This study conducted Chi-square test of independences to identify the relationship between the types of social media selected by Korean immigrants and demographic factors, ICT experience, and cultural factors. The results (shown in Tables 27 to 29 above) revealed significant relationships between the selected types of social media and multiple factors, including age, gender, marital status, parenting status, year of Internet use, year of social media use, frequency of social media use, satisfaction with social media, Korean language proficiency, English language proficiency, cultural aspect assessment score, year of residency, and type of residency. These findings confirm the previous research that also found that multiple factors influence the selection of social media for fulfilling information needs (Caidi et al., 2010; Fisher et al., 2004a; Haight et al., 2004). In particular, language proficiency emerged as a critical issue for most

immigrant participants in the study. Many participants mentioned during interviews that they preferred to find and use information in Korean rather than English. This trend was statistically significant and reflected in the relationship between participants' Korean and English language proficiency and their choice of social media platforms. These findings align with previous research indicating that language barriers can lead to immigrants feeling isolated from information resources in English and relying on resources within their own ethnic groups (Baron et al., 2014; Caidi et al., 2010; Jeong, 2004; Mao, 2015). Correspondingly, participants expressed that they occasionally visited Korean online communities to ask or find information based on Korean language and cultural standards.

In addition, this study also found that Korean immigrants select social media platforms due to information format, information quantity, reviews, and social network influence. Interestingly, participants prefer to use social media that provide access to a larger information quantity or are used by their social networks, including their friends, family, or organization. First of all, participants in the study expressed a desire to use social media platforms that offer a wealth of information quantity when seeking information online. When they have a specific purpose in mind, they are willing to move from a familiar social media platform to another that has more relevant and comprehensive information. Also, participants in the study showed a desire to stay connected with their friends, family, and organizations. Consequently, they tend to choose and use social media that their friends, family, and organizations also use, as this allows them to receive information from these sources. In addition, participants in the study recognize the importance of reviews in their decision-making process for shopping, travel, or dining. As a result, they consider reviews as one of the significant factors in their choice of social media.

Finally, participants also consider the format of the information presented as a crucial factor in their choice of social media. For instance, they prefer to use YouTube when they need to learn something and follow instructions through visual and auditory means.

5.2.4. How Immigrants Use Social Media for Finding Information

Previous research on social media use among immigrants has mainly focused on why they use social media, and has identified several factors affecting why Korean immigrants use a certain type of social media. (Kim Cho, 2012; Oh et al., 2013; Oh & Syn, 2015). However, this study aimed to also explore *how* Korean immigrants use social media. In particular, this study focused on identifying the factors that influenced how Korean immigrants use social media for information-seeking purposes. The findings revealed that participants use social media for information-seeking by searching a keyword on social media, clicking on feed/subscription notifications, clicking a social media link on the results list from a search engine, browsing or scrolling through content, clicking on hashtags, and asking questions (Table 31). Searching for keywords on social media (Boyd & Ellison, 2007; Lampe et al., 2006), clicking on a hashtag (Potnis & Tahamtan, 2021), and browsing or scrolling through content (Fyfield et al., 2021; Lampe et al., 2006) were identified in previous literature, and this study confirmed that Korean immigrants used the same method for finding information. However, this study found additional ways in which Korean immigrants use social media for finding information. In particular, clicking feed/subscribe notifications was the second most frequently used technique mentioned in interviews. Participants employ this method because it is simple and convenient—they can simply click on a notification and immediately view a post, without needing to search or browse for news from friends, family, organizations, or individuals to whom they subscribed, if they had

set up notifications provided by the social media. Another interesting method employed by participants is searching on Google and then clicking on social media postings. They mentioned that searching on social media does not provide enough relevant results, so they prefer to search on Google and then click on a piece of social media content that might contain relevant information. They use the search engine as a pivot point for finding information.

5.2.5. Factors Influencing the Use of Social Media for Finding Information

In RQ6, this study identified the factors that influence participants' use of social media for finding information. Through qualitative analysis, algorithms, features, filtering information amount, relevance of results, and speed of information delivery were identified as important factors. Previous studies have also investigated how users utilize social media to find information and have identified factors such as recommended videos or lists based on algorithms (Boyd & Ellison, 2007; Fyfield et al., 2021). This study confirmed that algorithm factors have a significant impact on the use of social media for finding information among Korean immigrants, as the algorithm's list is formulated based on users' previous searches and viewed content, leading them to browse or scroll through content. Besides algorithms, furthermore, this study identified more factors related to how immigrants use social media for finding information. Relevance of search results was found to be a key factor in determining how users utilize social media for information retrieval, particularly for searching. Participants prefer using search when the results are satisfactory. Additionally, when the list provided by the algorithm contains relevant results, users will browse through it. Furthermore,, the speed of information delivery was found to be another factor for Korean immigrants in using social media for finding information. Participants prefer to receive news quickly from their friends, family, or organizations they were interested

in. This influences their use of the feed/subscribe notification feature on social media. Furthermore, filtering information by following or subscribing was a crucial factor that influences how participants use social media for information seeking. They want to receive only the information that they are interested in and tend to disregard irrelevant content. Their focus is on information from sources such as friends, family, and subscriptions. Additionally, they also tend to narrow down their sources by searching for specific information such as local news or reviews from Korean sources. Participants described this approach when discussing browsing or clicking feed/subscribe notifications. In addition, Stories on Instagram and Facebook, as well as advertisements on social media, were found to lead users to use social media primarily through browsing.

5.3. Research Summary

Immigrants with different cultural backgrounds and who do not speak English require various tools to fulfill their information needs. They need more options for accessing and gathering information that can help them adjust to life in the United States. Historically, immigrant groups have relied on personal networks and previous generations of immigrants for accessing such information, and Korean immigrants have also used church communities as their information-sharing and gathering places (Jeong, 2004; Kwon et al., 1997). However, social media can serve as an additional information-sharing and gathering place for Korean immigrants. This study found that Korean immigrants select social media based on their information needs, and they use it to receive and share news from family, friends, communities, and organizations. They also choose social media based on factors such as information format, quantity, language, or the presence of reviews. After selecting social media, they choose the way to find information on it,

such as browsing, clicking hashtags, or searching based on factors such as algorithms and features.

5.4. Theoretical Implications

5.4.1. Extended Information Needs of Korean Immigrants

This research extends the understanding of information needs by identifying specific categories relevant to Korean immigrants in the United States. In particular, the findings of this study suggest that Korean immigrants have more diverse information needs than were previously identified in the literature (Shoham & Strauss, 2008; Suh & Hsieh, 2019). This study used nine categories of information needs defined by Shoham and Strauss (2008), Suh and Hsieh (2019), and Caidi et al. (2010), but this study found additional information needs from the questionnaires. In addition to the categories of information needs defined in previous research, such as health, employment, and education, this study identified new information needs among Korean immigrants on social media, including relaxation, food and dining, shopping, travel, and parenting information. Bigdeli (2007) observes that information needs can arise for various reasons because different users are in different situations and have different requirements to bridge any knowledge gaps they might have. Korean immigrants, therefore, have different information needs and requirements due to their different situations and those varying needs might have led participants to share their additional information needs. This finding contributes to the existing literature on information needs by highlighting the unique needs and preferences of this population group.

This study also highlighted the importance of defining and distinguishing different types of information needs, as some categories of information needs may overlap or be unclear. Especially, this study distinguished leisure or recreation information needs (Caidi et al., 2010; Chu, 1999; Fisher et al., 2004b; Savolainen, 2009). For example, while previous research has grouped relaxation, entertainment, and travel in one category as recreation or leisure, this study distinguished between these categories and identified a specific information need for relaxation. In particular, this research excluded one of the information needs, information about recreation, from Caidi's (2010) category of information needs because those were not mentioned the most of previous studies except Caidi et al. (2010), Chu (1999), Fisher et al. (2004b), and Su and Conaway (1995). Also, they did not clearly define what recreation information was. Only Chu (1999) put recreation, entertainment, and travel in one category without definition. However, this study confirmed that Korean immigrants have different and detailed information needs for recreation. Furthermore, this study contributes to identifying what relaxation, travel, shopping, and food and dining information specifically are and distinguishes them from broader recreation information.

5.4.2. Identified the Main Information Needs and Associated Types of Social Media, and the Factors Influencing Their Selection

Secondly, the study identified the most frequently selected information needs on social media, along with their associated frequency and satisfaction levels. Previous studies focused on why social media are used and their role in adaptation in a new country, or investigated specific types of social media (Muscanell and Guadagno, 2012; Sin & Kim, 2013). A few researchers have tried to learn what kind of social media are frequently used among immigrant groups (Suh &

Hsieh, 2019; Quirke, 2012). However, this study investigated the main information needs on social media and the associated types of social media, and some of its results confirmed previous studies' results. For example, this study found that the top five most selected information needs among participants were education, monitoring information, socializing, transportation, and health information. The results confirmed that education was the one of most important information types for Korean immigrants (Suh & Hsieh, 2019). Moreover, Suh and Hsieh (2019) indicate that their participants primarily turned to social media, such as Facebook and YouTube, for information on education, and this also corresponds with the current study's results. In addition, interestingly, the most frequently used information needs did not necessarily correspond with the highest levels of satisfaction. The top five most frequently used information needs were recreation, monitoring information, shopping, settlement, and education, whereas the top five most satisfying information needs were recreation, shopping, transportation, law, and financial. These findings suggest a gap between the frequency of use and the level of satisfaction among immigrants using social media for information needs.

Furthermore, the findings provide insights into the relationships between demographic factors, ICT experience, cultural factors, and information needs and the types of social media selected by Korean immigrants. Most previous studies focused on demographic factors in social media usage (Caidi et al., 2010; Haight et al., 2014; Machet & Govender, 2012) or on ICT experience (Baron et al., 2014; Caidi et al., 2010; Showail et al., 2013; Udwan et al., 2020). However, this study found that information needs themselves also have a relationship to the selection and use of social media. Specifically, the relationship between types of information needs and types of social media chosen was one of the most frequently mentioned topics in diaries and interviews,

suggesting that the selection of social media is closely tied to the information being sought. This reinforces the notion that social media use is complex and multifaceted. This contributes to the literature on social media use by offering a nuanced understanding of the factors influencing social media selection among this specific population.

5.4.3. Focused on How Immigrants Use Social Media to Find Information and Associated Factors, Rather Than Exploring Why They Use Social Media

Previous literature about how immigrants use ICTs or social media did not mainly focus on what kind of elements or advances in social media lead immigrants to use it (Kim Cho, 2012; Oh et al., 2013; Oh & Syn, 2015; Sin & Kim, 2013). Instead, these studies focused on social media's characteristics, such as the ability to share information and as a place to bond with others.

However, the current study reveals the various ways in which Korean immigrants use social media for information seeking. This expands upon previous research that has mainly focused on why immigrants use social media and highlights the equal importance of considering *how* they use it. Furthermore, this study identifies factors that influence the use of social media for information seeking, such as algorithms, relevance of search results, speed of information delivery, and filtering information. These findings underscore the need for a more detailed analysis of the factors that affect social media use for information seeking among immigrants.

Therefore, this research may contribute to the literature on information-seeking behavior by identifying distinct usage patterns among Korean immigrants when using social media for information needs. This can inform future studies on information-seeking behavior by offering a more comprehensive understanding of how individuals from different cultural backgrounds interact with social media platforms.

Gathering the study’s findings and implications, Figure 9 presents a theoretical model of Korean immigrants selection and use social media based on the results and findings of this study, depicting the process of selecting and using social media platforms and associated factors.

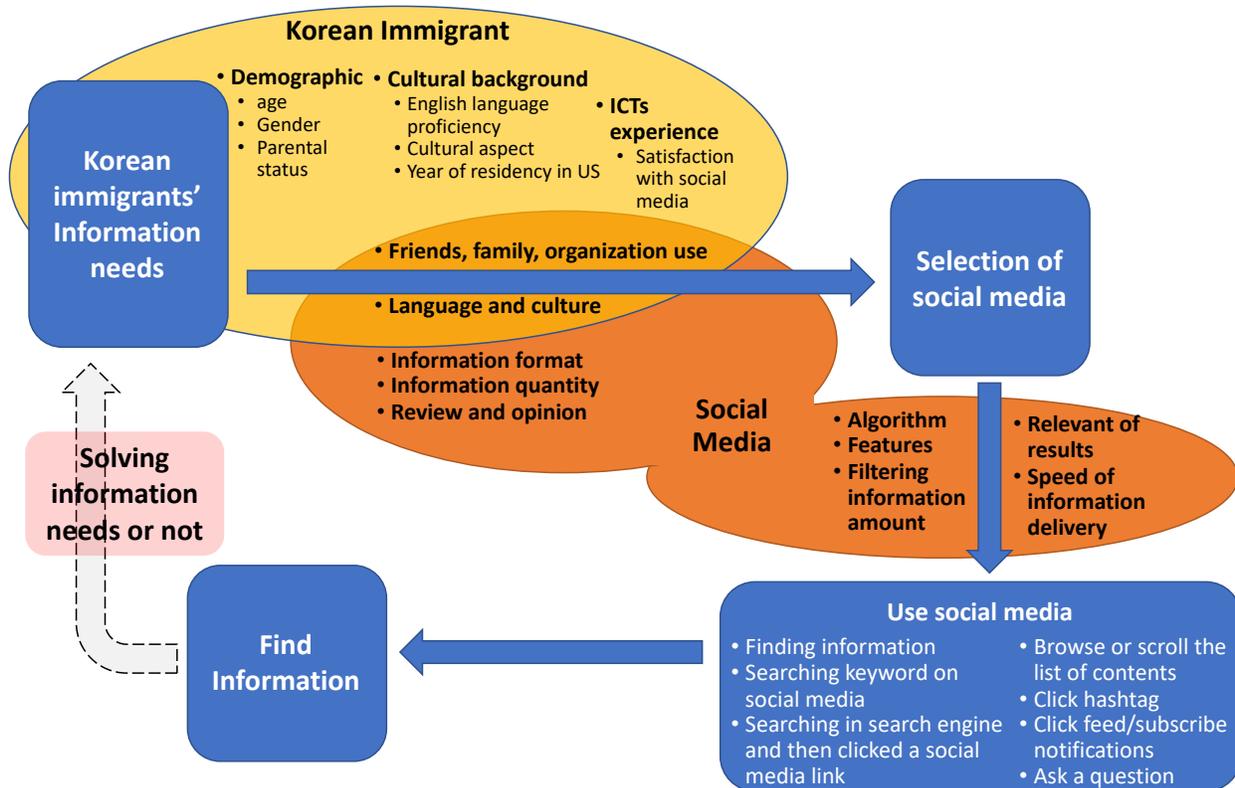


Figure 9. The Process of Selecting and Using Social Media Platforms and Associated Factors

5.5. Methodological Implications

This study makes a methodological contribution by applying mixed-method research to the study of immigrants’ information seeking and social media use. Previous studies about immigrants’ information seeking and ICTs usage have mostly used qualitative research methods for finding

detailed reasons for information seeking or ICT use (Jeng, 2004; Lin, 2011; Shoham & Strauss; 2008; Suh & Hsieh, 2019). Some studies have used mixed methods, but the number of research participants was the same for their quantitative and qualitative data collection (Adkins & Sandy, 2020; Khoir et al., 2015). Case (2002) suggests that utilizing diverse research methods and data sources is an effective way to conduct reliable and valid research, a perspective shared by several researchers who advocate for triangulation (Patton, 2002; Silverman, 2005). Despite the benefits of mixed-method research, it is not commonly employed in library and information science literature (Fidel, 2008). To comprehensively address the research problem, however, this study utilized a mixed-method approach for data collection and analysis. Three data collection methods were employed—questionnaires, diaries, and interview—and the collected data were analyzed using quantitative and qualitative methods. Also, the quantitative data set of this study was bigger than its qualitative data set so that the study could provide a more generalized analysis than previous studies have.

Also, this study contributed a data collection method. Previously, interviews were generally performed face-to-face (Jeng, 2004), by email (Kim Cho, 2012) or by telephone or chatting software (Suh & Hsieh, 2019). In this study, however, all participant interactions occurred online, except for one interview, and were conducted using Zoom or Microsoft Teams for recording participant voices. Moreover, the online questionnaire was created using UW-Milwaukee Qualtrics, and participants were sent links by email to access the questionnaire. The diary files were also exchanged through email. These technologies were chosen to avoid locational limitations and to save time compared to in-person meetings.

5.6. Practical Implications

This study discovered what kind of information needs Korean immigrants have and how they use social media, and what factors were associated with these immigrants' selection and use of social media. This study contributes to a better understanding of the information needs of Korean immigrants and the importance of considering their unique cultural and linguistic backgrounds when developing tools to support their information-seeking behaviors. Moreover, the findings of this study suggest that Korean immigrants use social media in a strategic and purposeful way to satisfy their information needs. Understanding the specific social media platforms and factors that influence their use can be beneficial for social media companies and marketers targeting Korean immigrants as a specific demographic. Therefore, this study provides insights for policymakers and service providers to create and disseminate information more effectively to the Korean immigrant population.

In particular, this study contributes information on what factors are associated with the use of social media for finding information so that developers or marketers can consider those factors to increase usability and satisfaction for Korean immigrants using social media for finding information. Here are several practical implications based on the results and discussion.

Leveraging algorithms and notifications: Social media platforms should optimize their algorithms to ensure that content related to the information needs of Korean immigrants is prioritized and easily accessible. Earlier research has explored how individuals make use of social media to seek information and have highlighted aspects such as suggested videos or lists

generated through algorithms (Boyd & Ellison, 2007; Fyfield et al., 2021). The current study confirmed that algorithm-related factors play a notable role in Korean immigrants' use of social media to find information. The algorithm-generated list was crafted based on users' earlier searches and viewed content, resulting in their exploring or scrolling through content. Platforms should also make it easy for users to set up and manage feed/subscription notifications to help them stay informed about relevant information. Also, a recommended list based on algorithms should be attractive to Korean immigrants so that they use the social media platforms more frequently with higher satisfaction.

Enhanced search functionality and relevance: To improve the information-seeking experience for Korean immigrants, social media platforms should work on improving search functionality, result relevance, and content filtering options such as hashtags. Boyd and Ellison (2007) highlight the importance of the search function on SNSs for users to find and connect with others. They also note that personalized search results can affect user behavior. Similarly, Potnis and Tahamtan (2021) found that hashtags play a crucial role in categorizing and filtering information on social media, allowing users to find and share content related to particular topics while filtering out irrelevant or unwanted content. The current study confirmed the previous studies' results. Relevant search results and hashtags affect Korean immigrants' selection and use of social media. Therefore, enhancing search functionality and increasing relevance will help users find information that is more pertinent to their needs and interests.

Language support: Since language proficiency is a significant reason for choosing social media in this study, providing content and support in the Korean language on social media can help

Korean immigrants feel more comfortable and engaged. This finding aligns with previous studies that investigated use of ICTs among immigrants (Ahmad et al., 2004; Baron et al., 2014; Fisher et al., 2004a). Platforms can also invest in better translation features to bridge the language gap for Korean immigrants.

Overall, the findings of this study expand our understanding of how immigrants use social media to fulfill their information needs and provide insights into the factors that influence their selection and use of social media platforms. This knowledge can be valuable for designing tailored interventions and support systems to better address the information needs of immigrants, particularly those facing language barriers.

5.7. Limitations of the Study

This study has several limitations in its data collection and analysis. Firstly, the sample size in the questionnaire was not sufficient for acquiring normalized data. Though this study had over 100 participants, the collected data did not reach normalization. Also, the collected data itself had an issue in that most variables were nominal or ordinal data, including the dependent variables, making it difficult to apply parametric tests. Even scales and continuous variables did not reach normalization due to the small number of participants answering each variable. Future research will require a larger sample size and use scale data to perform parametric tests for better quantitative analysis.

Secondly, the characteristics of the immigrant participants may not be representative of the general Korean immigrant population in the United States. While this study attempted to acquire

sample from the United States, online postings and emails were limited to certain locations, including California, Georgia, Illinois, Louisiana, New York, Oregon, Virginia, and Wisconsin. Also, there may be differences in characteristics between urban and rural areas, and the location of immigrants' residences may also affect their characteristics. However, this study did not collect location information, so the results may not distinguish different information needs and types of social media use that may be affected by different locations. Therefore, adding location information in future research would be beneficial.

Thirdly, there was a limitation to using diary data collection for this study. Encouraging participants to write diaries was time-consuming, and collecting valuable data was difficult. This suggests that maintaining regular communication during the diary study is crucial, and providing clear and detailed instructions with specific deadlines is necessary. For example, the diaries were used to determine how and when participants used social media, as well as which social media and information needs they selected. While diaries are supposed to allow researchers to see user activities that cannot be observed or discovered through interviews and to see data and activities sequentially, they have credibility problems due to relying on participant self-reporting. This self-reporting can be influenced by memory bias or a lack of explanation from participants (Lakshminarayanan, 2010). Furthermore, while participants were given two weeks to complete the diaries, some participants took longer than two weeks to complete them, and some diaries lacked sufficient explanation. Therefore, providing more concise and straightforward instructions, detailed time management with participants, and a communication plan to connect with participants will be helpful in future research. Alternatively, applying think-aloud data

collection method would be helpful to capture how participants select and use social media for meeting information needs for specific tasks.

Fourthly, despite receiving technological support, several challenges emerged during the data collection. For example, scheduling interviews with participants living in different time zones was also a critical aspect of effective time management. Therefore, it is important to ascertain the participant's location prior to conducting the online interview, and this procedure should be included in the interview preparation process. Also, there were many unusable or invalid online questionnaires on Qualtrics. Some participants stopped filling out their questionnaires, or some questions were missed. The total Qualtrics survey showed that 139 participants had participated, but 26 participants' surveys were discarded because they were not answered fully.

Fifthly, quantitative data analysis was not fully generated. Descriptive analysis and Chi-square test of independences were applied during the quantitative analysis. A detailed descriptive analysis produced a crosstab table that presented the prioritized information needs and associated social media, allowing for comparisons among them. However, the categorical data collected from the questionnaire posed a significant challenge during the statistical analysis. Since most of the collected data were nominal or ordinal, parametric tests were not applicable. Therefore, non-parametric tests, such as the Chi-square test of independence, were used in this study. In future studies, collecting more numeric data will be useful to acquire statistical results.

Sixthly, this study did not sufficiently establish the distinctiveness of its results compared to those of other groups. While it uncovered additional information needs, patterns of social media

use, and associated factors, it is challenging to assert that these findings are exclusive to Korean immigrants in everyday life settings. These results might have applicability to other immigrant groups or they could be specific to the experiences of Korean immigrants. Consequently, conducting a comparative analysis with other immigrant groups would be valuable in determining the unique aspects of the study's findings among Korean immigrants.

Lastly, a limitation of translating transcripts existed. It can be difficult to accurately convey the nuances and meaning of the original language. This is particularly true when translating from a language with unique cultural or contextual references that may not have an exact equivalent in the target language. Furthermore, translation errors or omissions can occur due to language differences, cultural differences, or differences in interpretation. These errors can lead to misunderstandings, misinterpretations, or inaccuracies in the data (Koppel et al., 2005). In this study, all data acquired from diaries and interviews were transcribed in Korean and then coded in Korean. Afterward, the coded transcribed data were translated into English by the researcher. However, this process can lead to translation errors or inaccuracies, as the researcher may not be a native English speaker and the translated coded data may not have an exact equivalent in the target language. To address this limitation, it is important to hire trained and qualified translators who are familiar with the target language and culture of the participants, and who have high proficiency in both Korean and English for accuracy. Additionally, providing clear instructions to the translators and maintaining frequent and open communication can help ensure consistency and accuracy in the translation process.

5.8. Chapter Summary

This chapter discussed the key findings, implications, and limitations of the study. The key findings include the factors associated with selecting types of social media, how Korean immigrants use social media to find information, and the factors associated with the use of social media among Korean immigrants.

In the implications section, theoretical, practical, and methodological implications are provided. The theoretical implications suggest studying immigrants' information needs and information seeking on social media, while the practical implications provide design suggestions for studies of social media use. The methodological implications provide guidance on how to collect and analyze data for studies of immigrants' information needs. Lastly, the study acknowledges its limitations and provides recommendations for future research.

Chapter 6. Conclusions

6.1. Overview and summary

This study investigated what types of information needs Korean immigrants have on social media and how they select and use social media in their everyday lives in the United States. To answer the main questions, this study examined the following research questions: 1) What are the top types of information needs on social media that Korean immigrants fulfill during their everyday lives in the United States?; 2) What types of social media do Korean immigrants most frequently use during their everyday lives in the United States for different types of information needs?; 3) Are there any relationships between types of social media they select and demographic factors, ICT experience level, cultural factors, and information needs?; 4) What factors influence the selection of types of social media among Korean immigrants?; 5) How do Korean immigrants use social media during their everyday lives in the United States?; 6) What factors influence Korean immigrants' social media use during their everyday life information seeking in the United States?

To answer research questions, this study utilized both qualitative and quantitative research methods in a mixed-method design to obtain in-depth data. The study acquired data from 111 Korean immigrant participants through online questionnaires, and from 16 Korean immigrant participants through diaries and interviews. The quantitative method provided an overview of the current information needs of immigrants in everyday life in the United States, revealing the top types of information needs, the most frequently used social media, and the relationship between types of social media and types of information needs, demographic factors, cultural factors, and ICT experience. It also showed what types of factors affect the selection of types of social media

among Korean immigrants. As a complement to these findings, the qualitative method explained what types of factors may be embedded in particular social media selection for specific types of information needs and how Korean immigrants use social media for their information seeking in everyday life and influenced factors to use social media for finding information.

RQ1. What are the top types of information needs on social media that Korean immigrants fulfill during their everyday lives in the United States?

In RQ1, this study identified the most common types of information needs among Korean immigrants in the United States by conducting questionnaires. Participants were given a questionnaire with pre-categorized options but were also allowed to add additional information needs. Five new categories emerged, including relaxation, shopping, travel, food and dining, and parenting. Education was the most popular information need on social media, followed by monitoring and socializing.

RQ2. What types of social media do Korean immigrants most frequently use during their everyday lives in the United States for different types of information needs?

In RQ2, this study aimed to identify the types of social media most frequently used by Korean immigrants for different types of information needs. SNSs were the most commonly used social media type, with Facebook, Instagram, LinkedIn, and Reddit specifically mentioned in that order. A crosstab table was created to match information needs with the most commonly used types of social media. Education, socializing, monitoring information, transportation, and health information were identified as the top five information needs, with YouTube being the most

commonly used social media platform for education, monitoring information, and health information.

RQ3. Are there any relationships between types of social media Korean immigrants select and demographic factors, ICT experience level, cultural factors, and information needs?

In RQ3, this study investigated the relationship between types of social media selected by Korean immigrants and several variables, including demographic factors, ICT experience, cultural factors, and information needs. Age, gender, marital status, and parenting status are demographic factors that are associated with the selection of social media types. Year of Internet use, year of social media use, frequency of social media use, and satisfaction with social media is an ICT experience factor that is associated with the selection of social media types. Cultural variables, such as Korean language proficiency, English language proficiency, cultural self-assessment score, year of residency, and type of residency are also associated with the selection of social media types.

RQ4. What factors influence the selection of types of social media among Korean immigrants?

In RQ4, this study used open coding to identify factors associated with the selection of social media among Korean immigrants. Data were collected from questionnaires, diaries, and interviews, and 167 comments were grouped into six factors: social network influence, information format, information needs, culture, information quantity, and reviews. Participants select social media based on their personal social network's use of the platform, the format of the information they were seeking, their information needs, their language and cultural preferences, the quantity of information available, and the presence of reviews and opinions.

RQ5. How do Korean immigrants use social media for finding information during their everyday lives in the United States?

In RQ5, this study explored how Korean immigrants use social media to gather information in their everyday lives. Open coding was used to group participants' comments into five usage patterns: asking questions, clicking feed/subscribe notifications, clicking hashtags, browsing or scrolling, searching a keyword on the social media, and clicking social media links via a search engine. The most common method used by participants is searching a keyword on the social media, particularly when they need information related to shopping, food and dining, housing, or entertainment.

RQ6. What factors influence Korean immigrants' social media use for information seeking in their everyday lives in the United States?

In RQ6, this study aimed to identify the factors that influence Korean immigrants' social media use during their everyday lives in the United States. Participants rely on the algorithm to suggest content, enjoy certain features like Instagram DMs and Stories, and limit their sources to obtain relevant information quickly. The relevance of search results and the speed of information delivery were crucial factors that influenced social media use. Participants desired only the information that they were interested in, ignored irrelevant content, and searched for information relevant to their needs and interests.

Based on the data collection, data analysis, and results, the implications section provides theoretical, practical, and methodological implications. The theoretical implications suggest

some implications including expanded information needs and factors related to the selection and use of social media for studying immigrants' information needs and information seeking on social media. The practical implications provide design suggestions for social media, while the methodological implications provide guidance on collecting and analyzing data for studies of immigrant information needs. Additionally, the limitations of the study are acknowledged, and recommendations for future research are provided.

6.2. Future Studies

Based on the findings and limitations of the research, several future studies could be conducted. First, a study comparing information needs in different living locations among immigrants could be explored. Immigrant information needs are complex and influenced by multiple factors, making it possible that different information needs exist based on living location. Building on the findings of RQ1, identifying information needs among Korean immigrants by living location and comparing differences between immigrants living in urban and rural areas would be beneficial.

Secondly, in order to increase the accuracy and representativeness of the Korean immigrant population, a study using stratified sampling will be conducted. Stratified sampling ensures that each subgroup is represented in the sample in proportion to its representation in the population. Therefore, a future study can represent Korean immigrants more accurately and provide a comparative analysis by dividing the population into subgroups or strata based on certain characteristics or attributes, such as age, gender, income, and education level. Based on stratified samples, a future study will identify relationships between types of social media and other variables with the distinct effects of each variable. Consequently, employing statistical

techniques such as Chi-square tests of independence and multinomial logistic regression analysis would be performed. These methods would facilitate a more detailed interpretation of the quantitative results and provide a deeper understanding of how various variables influence the selection and usage of social media among Korean immigrants, offering more meaningful insights.

Thirdly, more organized data collection with more detailed instructions will be used in a future study. Specifically, better-managed diary data collection with more detailed instructions and think-aloud data collection method can be applied in future research. This study used a diary data collection method for learning about users' activities. However, there were some limitations, such as delay and the value of the data. Therefore, clear and simple instructions, carefully managed timelines for participants, and a clear communication plan will be applied to improve future research if a diary method is used again. Alternatively, however, utilizing the think-aloud data collection method can be useful to understand how participants use social media to find information for the assigned tasks. In addition, better-organized online questionnaires will prevent the loss of data. In this research, 26 participants did not finish their online questionnaires for various reasons. Therefore, better-organized questionnaires will be deployed, and some function such as preventing skipped questions will be applied.

Fourthly, future research will hire trained and qualified translators who are familiar with the target language and culture of the participants. In particular, future research will hire a translator who is proficient in both Korean and English if the research is about Korean immigrants in the

United States. In addition, providing clear instructions for translating and maintaining frequent and open communication can help ensure consistency and accuracy in the translation process.

Fifthly, future research will continue studying sociocultural influences in the selection and use of social media among immigrants within cross-cultural environments by expanding studies of various cases of cross-cultural contexts. For example, investigation of immigrants' user experiences on social media platforms will be possible. Alternatively, other immigrant groups' information seeking on social media could be studied. The results of the new study will give an overview of the selection or use of social media among a targeted immigrant group. Then the results from the new study can be compared to this study's results. It may discover how the groups are different or similar in their use of social media for finding information and what kind of factors influence their selection and use of social media.

This study has contributed to the understanding of the types of information needs of Korean immigrants in the United States and how they use social media to fulfill these needs. A mixed-method approach was employed to answer the research questions, and the results provide insights into the information needs of immigrants on social media and the potential design of interventions and support systems to address those needs. The study has implications for further research in the area of immigrant information needs on social media and can inform the development of tailored solutions to support this population.

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Appendix A. Recruitment email

Advertisement for recruitment

(This recruitment flyer will be used in online posting, email, bulletin board. Both English and Korean version will be posted.)

Invitation to Participate in Research on information seeking on social media among Korean immigrants in the United States

Hello, my name is Tae Hee Lee, and I'm a doctoral student at the School of Information Studies at the University of Wisconsin Milwaukee. I'm currently conducting a study investigating Korean immigrants' information seeking on social media living in the United States. I'm looking for participants who are interested in my research.

I'm looking for a South Korean born in South Korea but currently living in the United States. A participant should be age 18 or more. Active social media users (e.g., Facebook, YouTube, Reddit, Naver Blog) are welcomed and must use social media for at least six months. Here is a link to a set of quick questions to see if you are eligible for the current study and the survey itself (link: screening questions link will be added here).

If you are eligible to participate in the study, you will receive the questionnaire link via email. The questionnaire will take around 30 minutes, and you will receive \$5 Amazon e-gift cards after finishing the questionnaire. At the end of the questionnaire, you will be asked to join a diary and interview for this study. If you check "yes" and select to participate, you will be able to have \$15 Amazon e-gift cards after completing the diary and interview.

In the diary study, you will write down your two weeks of social media use activity in a provided form (word file). I'm not asking you to submit over a page-long diary every day. I will ask you to let me know if there is new information you found or encountered when you used social media during your everyday life. After the diary study, you will have an interview. In the interview, you will answer how to use social media to fulfilling your information needs in everyday life in the United States. Interview will take around an hour.

If you are interested in participating or have questions, don't hesitate to contact Tae Hee Lee (email: taehee@uwm.edu). Also, please pass on this information to other suitable candidates you think may be interested.

Thank you,
Tae Hee Lee

재미 한국이민자들의 소셜미디어에서 정보검색에 관한 연구 참여자를 모집합니다.

안녕하세요, 저는 위스콘신 주립대 밀워키 캠퍼스의 정보학교에 재학중인 이태희라고 합니다. 현재 미국에 사는 한국 이민자들의 소셜미디어를 통한 정보검색에 대한 연구를 진행하고 있는데, 이 연구에 참여하실 분들을 찾고 있습니다.

참여자는 한국에서 태어나서 현재 미국에 거주중인 만 18 세 이상의 성인 남녀를 대상으로 하고 있습니다. 현재 소셜미디어 (예: 페이스북, 유튜브, 레딧, 네이버 블로그 등)을 사용하고 있는 중이어야 하며, 적어도 6 개월 이상은 사용한 분이어야 합니다. 아래 링크를 누르시면, 참여 가능여부에 대한 질문이 있으니, 그 질문을 작성해 주시면 참여 가능여부의 확인이 가능합니다.

(링크클릭:https://milwaukee.qualtrics.com/jfe/form/SV_2gbYVSxYmdJbpHg)

만약 참여가 가능하시다면, 이메일을 통해 설문조사에 대한 링크가 발송됩니다. 설문조사는 약 30 분정도 소요되며, 설문 완료 후 5 불의 아마존 e-기프트 카드가 발송될 예정입니다. 설문 마지막에는 다이어리와 인터뷰 참여 여부에 대한 질문이 있습니다. Yes 를 체크하시고 참여하시는 것에 선택이 되시면, 다이어리 및 인터뷰 완료 후 15 불 상당의 아마존 기프트 카드를 받으실 수 있습니다.

다이어리 스터디에서는 주어진 품 (워드파일)에다가 2 주간의 소셜미디어 사용에 대하여 기재해 주시면 됩니다. 매일 한장 이상의 긴 다이어리를 요청드리는 것이 아닙니다. 매일 소셜미디어 사용중에 정보를 찾거나 우연히 정보를 습득하는 경우에 대하여 기재를 부탁드립니다. 다이어리 스터디 이후에는 인터뷰를 할 예정입니다. 인터뷰에서는 소셜미디어를 통해 어떻게 본인의 정보 요구를 해결하고 필요한 정보를 습득했는지에 대하여 질문드릴 예정입니다. 인터뷰는 한시간 정도 소요될 예정입니다.

참석하시길 희망하시거나 질문이 있으시면 여기로 연락 부탁드립니다. 연락처는 taehee@uwm.edu 이태희입니다. 혹시 설문에 참석이 가능한 다른 분들을 알고 계시다면 이 정보를 전달해 주시길 부탁드립니다.

감사합니다.
이태희 드림

Appendix B. Consent form

UNIVERSITY OF WISCONSIN – MILWAUKEE CONSENT TO PARTICIPATE IN RESEARCH

Informed Consent Form

1. General Information

Study title: INFORMATION NEEDS OF KOREAN IMMIGRANTS AND THEIR USE OF SOCIAL MEDIA IN THE UNITED STATES

Person in Charge of Study:

Tae Hee Lee
Doctoral candidate
School of Information Studies
University of Wisconsin-Milwaukee
(414)943-9327 (phone)
taehee@uwm.edu

2. Study Description

You have been asked to participate in a research study investigating the information needs of Korean immigrants and their use of social media in the United States. You receive this consent form because you meet the study participation criteria. This study focuses on the current status of information needs of Korean immigrants and their social media usage patterns. The goal is to identify what kinds of information needs Korean immigrants have, what kinds of social media Korean immigrants select for meeting their information needs, and how Korean immigrants use social media to fulfill their information needs. Specifically, this study investigates: what kinds of information needs Korean immigrants have in the United States, the leading social media for finding and sharing information in their everyday life in the United States, what factors affect their social media selections, how Korean immigrants use social media in their everyday life in the United States, and what factors affect their social media use.

3. Study Procedures

This consent form includes information explaining the study's research procedures, benefits, and risks. You will receive a link to the questionnaire via email. The questionnaire will be taken around 30 minutes. After completing the questionnaire, you will answer the question about joining a diary and an interview. If you answer "no" in the question, your participation is finished. If you answer "yes" in the question, you may have a chance to receive the diary form via email and may do an interview via online or in-person upon your request.

In the diary study, you will write down your two weeks of social media use activity in a provided form (Word file format) that asks several questions (e.g., what kind of social media use, what

kind of information you found, how long you used, whether you satisfied or not). The purpose of a diary is to let the researcher know if there is new information you found or encountered when you used social media during your everyday life. After you finish your diary, you will send it back to the research via email.

After the diary study, you will have an interview. In the interview, you will answer how to use social media to fulfilling your information needs in everyday life in the United States. You will be asked to participate in an interview via Microsoft Team. Or you can request to do an interview in-person if you prefer to meet. In that case, a voice recorder device or Microsoft Team will use to record interviews.

Finally, the researcher will analyze the interview transcripts and questionnaires to identify what factors are affected the selection and usage of social media among Korean immigrants in the United States.

The data will be collected from the following means from you:

1.1) You will fill in a questionnaire comprising your demographic information, types of social media, and types of information needs, as well as your past experiences using social media to fulfill your information needs (around 30 minutes).

1.2) You will be asked to record in the diary about your experiences of using social media to find or encounter information you want when you use social media. Your diary will be saved in Word format (diary writing time may vary).

1.3) After submitting the diary file to the researcher by email, you will be interviewed via Microsoft Team. Interviews are used to collect a more in-depth understanding of how Korean immigrants use social media and what hidden factors are embedded in social media selection and usage for their information needs. You will be asked about your experience of social media use for finding and encountering information (around 60 minutes). You will be permitted to take short breaks, about 10 minutes as needed during the interview.

4. Risks and Minimizing Risks

There is no serious risk occurring to participants in participation in the research. The researchers will try to minimize the risk by only revealing your participant number. Your voice will be recorded. Your face may be recorded if you turn on your webcam. The confidentiality of your responses will be protected at all times when the data are collected and analyzed and when the results are reported in a published paper. No names will be attached to the questionnaires, diaries, and video files. All data will be stored with a coded participant identification number. The researcher will make the coded data available for use in the analysis. The researcher will archive the collected coded dataset in a password-protected computer. After finished the study, all data will be destroyed in five years. Specifically, questionnaires, diaries, and interview recording files will be destroyed in two years (approximately July 31, 2023). Transcribed and coded files will be destroyed in five years (approximately July 31, 2027). This study data may be used for comparing other immigrant groups' social media use for information seeking.

5. Benefits

Once the questionnaire is completed, you will receive a \$5 Amazon gift cards. If you are selected as a diary and interview participant, you will receive a \$15 Amazon gift card for completing in the diary and interview. If you only complete a part of the study or withdraw during the study, you will not receive compensation.

6. Study Costs

You will not be responsible for any of the costs of participating in this research study. The costs refer to any cost related to the development and management of the study.

7. Confidentiality

All information collected about you during this study will be kept confidential to the extent permitted by law. Only the authorized researcher will have access to the data. The researcher may decide to present findings to others or publish our results in scientific journals or at scientific conferences. However, the Institutional Review Board at UW-Milwaukee or appropriate federal agencies like the Office for Human Research Protections may review your records.

- The collected data will be confidential and only reveal each participant's number.
- All data, including names and associated demographic data collected from participants, will be stored and kept in a locked area by the researcher. The researcher will also store the screen recording files on a password-protected computer. All data will be stored with a coded participant identification number. The researcher will make the coded data available for use in the analysis.
- Coded data will also be made available for use in the analysis by the researcher. The researcher will archive the collected coded dataset in a password-protected computer.
- This study data may be used for comparing other immigrant groups' social media use for information seeking but only participants' numbers are revealed.
- After finished the study, all data will be destroyed in five years.
 - Questionnaires, diaries, and interview recording files will be destroyed in two years (approximately July 31, 2023).
 - Transcribed and coded files will be destroyed in five years (approximately July 31, 2027).

8. Alternatives

There are no known alternatives available to you other than participating in this study.

9. Voluntary Participation and Withdrawal

Your participation in this study is entirely voluntary. You may choose not to take part in this study. If you decide to participate, you can change your mind later and withdraw from the study. You are free not to answer any questions or withdraw at any time. If you are a current student taking a class with the principal investigator, your refusal to participate in the study will not affect your grade or class standing. If you withdraw from the study, all information collected will be destroyed.

10. Questions

Who do I contact for questions about this study?

For more information about the study or the study procedures or treatments, or to withdraw from the study, contact:

Tae Hee Lee
Ph.D. Candidate
School of Information Studies
University of Wisconsin-Milwaukee
(414)943-9327 (phone)
taehee@uwm.edu

Who do I contact for questions about my rights or complaints about my treatment as a research participant?

The Institutional Review Board may ask your name, but all complaints are kept in confidence.

Institutional Review Board
Human Research Protection Program
Department of University Safety and Assurances
University of Wisconsin – Milwaukee
P.O. Box 413
Milwaukee, WI 53201
(414) 662-3544
irbinfo@uwm.edu

Statement of Consent

Your signature indicates that you have read this consent form, agreed to participate in this study, give permission to record interviews, and use collected data to the researcher for study purposes such as your interview will be quoted in the publications without your real name. Also, you had an opportunity to ask questions about your participation in this research and voluntarily consent to participate. You will receive a copy of this form for your records.

Printed Name of Participant:

Signature:

Signature Date:

위스콘신 대학 밀워키 연구 참여 동의서

1. 일반정보

연구제목: 미국에 사는 한국 이민자들의 정보욕구 및 소셜미디어 사용에 대한 연구

연구책임자: 이태희 (Doctoral candidate, School of Information Studies, University of Wisconsin-Milwaukee, (414)943-9327 (phone), taehee@uwm.edu)

2. 연구 내용

귀하는 한국 이민자들의 정보 요구와 미국 내 소셜 미디어 사용에 대한 조사 연구에 참여를 요청 받았습니다. 스터디 참여 기준을 통과하면 이 동의서를 받게 됩니다. 이 연구는 한국 이민자들의 정보수요 현황과 소셜미디어 이용패턴에 초점을 맞추고 있습니다. 한국인 이민자들이 어떤 종류의 정보를 필요로 하는지, 한국인 이민자들이 그들의 정보 요구를 충족시키기 위해 어떤 종류의 소셜 미디어를 선택하는지, 그리고 한국인 이민자들이 그들의 정보 욕구를 충족시키기 위해 소셜 미디어를 어떻게 사용하는지를 파악하는 것이 목적입니다. 구체적으로 본 연구는 한국 이민자들이 미국에서 어떤 종류의 정보를 필요로 하는지, 미국 내 일상생활에서 정보를 찾고 공유하기 위해 가장 많이 사용되는 소셜 미디어, 그리고 어떤 요인들이 소셜 미디어 선택과 사용에 어떤 영향을 미치는지, 한국 이민자들이 미국에서 그들의 일상 생활에서 소셜 미디어를 어떻게 사용하는지를 조사하고자 합니다.

3. 연구 진행

이 동의서에는 연구의 연구 절차, 유익성 및 위해성을 설명하는 정보가 포함되어 있습니다. 이메일을 통해 설문지를 받게 됩니다. 설문지는 약 30 분 정도 소요됩니다. 설문지 마지막에는 다이어리 및 인터뷰 참여에 대한 질문이 있습니다. 질문에 "아니오"라고 대답하면 연구 참여가 거기서 종료됩니다. 질문에서 "예"라고 대답하면 이메일을 통해 다이어리 양식을 받을 수 있으며 참여자의 요청에 따라 온라인 또는 직접 인터뷰를 할 수 있습니다.

다이어리 스터디에서는 소셜 미디어 사용 활동 2 주 동안 몇 가지 질문(예: 소셜 미디어 사용 종류, 찾은 정보 종류, 사용 기간, 만족 여부)을 제공하는 양식(워드 파일 형식)으로 적습니다. 다이어리의 목적은 일상 생활에서 소셜미디어를 사용했을 때 발견했거나 접한 새로운 정보가 있는지 연구자에게 알려주는 것입니다. 다이어리를 완료한 후 전자 메일을 통해 연구 책임자에게 다시 보냅니다.

다이어리가 끝나면, 참여자는 인터뷰를 하게 됩니다. 인터뷰에서, 여러분은 미국에서 일상 생활에서 여러분의 정보 요구를 충족시키기 위해 소셜 미디어를 어떻게 사용하는지에 대해 답변하시면 됩니다. Microsoft Team 을 통해 인터뷰에 응해 달라는 요청을 받게 됩니다. 직접 만나서 하는 인터뷰를 요청하셔도 됩니다. 이 경우, 음성 녹음 장치나 마이크로소프트 팀이 인터뷰를 녹음하기 위해 사용될 예정입니다.

마지막으로 연구자는 인터뷰 녹취록과 설문지를 분석해 미국 내 한인 이민자 중 소셜미디어 선택과 이용에 어떤 요인이 영향을 미치는지 연구할 예정입니다.

데이터는 다음 수단으로부터 수집됩니다.

- 1.1) 인구 통계 정보, 소셜 미디어 유형 및 정보 요구 유형 뿐만 아니라 소셜 미디어를 사용하여 정보 욕구를 충족한 과거 경험(약 30 분)으로 구성된 설문지를 작성합니다.
- 1.2) 소셜 미디어를 사용할 때 원하는 정보를 찾거나 접하기 위해 소셜 미디어를 사용한 경험을 다이어리에 기록합니다. 다이어리는 워드 형식으로 저장됩니다(다이어리 쓰는데 소요되는 시간은 달라질 수 있음).
- 1.3) 연구자에게 다이어리 파일을 이메일로 제출한 후 마이크로소프트 팀을 통해 인터뷰하게 됩니다. 인터뷰는 한국 이민자들이 소셜미디어를 어떻게 사용하는지, 그리고 그들의 정보 욕구를 위한 소셜미디어 선택과 이용에 어떤 숨겨진 요소들이 내재되어 있는지에 대한 보다 심층적인 이해를 모으기 위해 사용됩니다. 정보를 찾고 접하기 위해 소셜 미디어를 사용한 경험(약 60 분)에 대해 질문을 받게 됩니다. 면접 중에 필요에 따라 10 분 정도 짧은 휴식을 취할 수 있습니다.

4. 리스크 및 리스크 최소화

연구 참여자에게 심각한 위험이 발생하지 않습니다. 연구원은 여러분의 참가자 번호만 공개함으로써 위험을 최소화하기 위해 노력할 것입니다. 목소리가 녹음됩니다. 웹캠을 켜면 얼굴이 기록될 수 있습니다. 데이터가 수집 및 분석될 때, 그리고 게시된 논문에 결과가 보고될 때 항상 응답의 기밀성이 보호됩니다. 질문지, 일지 및 비디오 파일에는 이름이 첨부되지 않습니다. 모든 데이터는 코드화 된

참가자 식별 번호와 함께 저장됩니다. 연구원은 코드화 된 데이터를 분석에 사용할 수 있도록 할 것입니다. 연구원은 수집된 코드화 된 데이터 세트를 암호로 보호된 컴퓨터에 보관합니다. 연구를 마친 후, 모든 데이터는 5년 안에 삭제될 예정입니다. 구체적으로 2년 후(2023년 7월 31일경)에는 설문지, 일기, 인터뷰 기록 파일이 파기됩니다. 문서화 및 코드화 된 파일은 5년 후(2027년 7월 31일경) 파기됩니다. 이 연구 데이터는 다른 이민자 집단의 정보 찾기에 대한 소셜 미디어 사용을 비교하는 데 사용될 수 있습니다.

5. 혜택

설문지 작성을 완료하면 5달러짜리 아마존 기프트 카드를 받게 됩니다. 다이어리 및 인터뷰 참여자로 선정되면 다이어리 및 인터뷰 완료 시 15달러 상당의 아마존 기프트 카드를 받게 됩니다. 다만, 스터디의 일부만 완료하거나 스터디 도중 탈퇴하는 경우 보상을 받지 못합니다.

6. 연구비

당신은 이 연구 조사에 참여하는 데 드는 어떠한 비용도 책임지지 않을 것입니다. 비용은 연구의 개발 및 관리와 관련된 모든 비용을 의미합니다.

7. 기밀성

본 연구를 통해 수집된 모든 정보는 법률이 허용하는 범위 내에서 기밀로 유지됩니다. 인증된 연구자만이 데이터에 액세스할 수 있습니다. 연구자는 다른 사람들에게 연구 결과를 발표하거나 과학 저널이나 과학 학회에 발표하기로 결정할 수 있습니다. 그러나 Institutional Review Board at UW-Milwaukee 또는 Office for Human Research Protections 와 같은 연방 기관에서 귀하의 기록을 검토할 수 있습니다.

- 수집된 데이터는 기밀로 유지되며 각 참가자의 번호만 공개됩니다.
- 참가자들로부터 수집된 이름 및 관련 인구통계 데이터를 포함한 모든 데이터는 연구자에 의해 잠긴 영역에 저장되고 보관됩니다. 또한 그 연구원은 화면 녹화 파일을 암호로 보호된 컴퓨터에 저장할 것입니다. 모든 데이터는 코드화 된 참가자 식별 번호와 함께 저장됩니다. 연구원은 코드화 된 데이터를 분석에 사용할 수 있습니다.
- 코딩 된 데이터는 분석에 사용되며 연구원은 수집된 코드화 된 데이터를 암호로 보호된 컴퓨터에 보관합니다.
- 이 자료는 다른 이민자 집단의 소셜미디어 정보이용 비교에 사용될 수 있지만, 참여자의 번호만 공개됩니다.
- 연구를 마친 후, 모든 데이터는 5년 안에 파기됩니다.
 - 설문지, 일기, 인터뷰 기록 파일은 2년 후(2023년 7월 31일경) 파기됩니다.
 - 전사 및 코드화 된 파일은 5년 후(약 2027년 7월 31일) 파기됩니다.

8. 대안

여기에 적힌 방법 외에 다른 방법으로 이 연구에 참여할 수 없습니다.

9. 자발적 참여와 탈퇴

이 연구에 대한 당신의 참여는 전적으로 자발적인 것입니다. 이 연구에 참여하지 않을 수도 있습니다. 참여를 결정하면 나중에 마음을 바꿔 스터디에서 탈퇴할 수 있습니다. 어떤 질문에도 대답하지 않거나 언제든지 철회할 수 있습니다. 만약 당신이 연구자와 함께 수업을 듣는 현재 학생이라면, 당신의 연구 참여 거부는 당신의 성적이나 수업 순위에 영향을 미치지 않을 것입니다. 연구에서 탈퇴하면 수집된 모든 정보가 삭제됩니다.

10. 질문

이 연구에 대한 질문은 어디로 연락해야 합니까?

연구 또는 연구 절차 또는 방법에 대한 자세한 내용을 보거나 연구에서 탈퇴하려면 다음 연락처로 문의하십시오.

이태희 (Doctoral candidate, School of Information Studies, University of Wisconsin-Milwaukee, (414)943-9327 (phone), taehee@uwm.edu)

연구 참여자로서 제 권리에 대한 질문이나 치료에 대한 불만 사항은 누구에게 연락해야 합니까?

The Institutional Review Board 는 당신의 이름을 물을 수 있지만, 모든 불만은 비밀에 부쳐집니다.

Institutional Review Board (Human Research Protection Program, Department of University Safety and Assurances, University of Wisconsin – Milwaukee, P.O. Box 413, Milwaukee, WI 53201)
(414) 662-3544, irbinfo@uwm.edu

동의서

귀하의 서명은 귀하가 본 동의서를 읽고, 본 연구에 참여하기로 동의했으며, 인터뷰 기록 허가를 부여하고, 수집된 데이터를 연구자에게 연구 목적으로 사용하는 것을 나타냅니다. 예를 들어 귀하의 인터뷰는 실명 없이 출판물에 인용됩니다. 또한 본 연구 참여에 대해 질문하고 자발적으로 참여에 동의함을 나타냅니다. 기록을 위해 이 양식의 사본을 받게 될 것입니다.

인쇄된 참가자 이름:

서명:

Appendix C. IRB Application Approval



Institutional Review Board

uwm.edu/irb
irbinfo@uwm.edu
414-662-3544

Date: August 5, 2022

To: Iris Xie

Dept: School of Information Studies

CC: Tae Hee Lee - Co-Investigator

IRB #: 23.017

Title: Information needs of Korean immigrants and their use of social media in the United States

The University of Wisconsin-Milwaukee Institutional Review Board has granted your protocol Exempt Status under Category 2 as governed by 45 CFR 46.104(d).

This exemption determination is valid for three years and will expire on **August 4, 2025**. Before the expiration date, you will receive an email explaining how to either keep the study open or close it. If the study is completed before the expiration date, you may notify the IRB by sending an email to irbinfo@uwm.edu.

Any proposed changes to the protocol must be reviewed by the IRB before implementation, unless the change is specifically necessary to eliminate apparent immediate hazards to the subjects.

It is your responsibility to:

- promptly report unanticipated problems to the IRB
- maintain proper documentation of study records
- ensure that all study staff receive appropriate training as outlined in the protocol
- adhere to the policies and guidelines set forth by the IRB, UWM, and the UW System, and to all applicable state and federal laws

Contact the IRB office if you have any further questions. Thank you for your cooperation and best wishes for a successful project.

Appendix D. Questionnaire

Korean immigrants' social media usage for information searching

Start of Block: Demographic

Q1 설문에 참여해주셔서 감사합니다. 이 설문조사는 미국에 거주하고 있는 한국 이민자들이 생활하는데 필요한 정보검색을 소셜미디어에서 어떻게 사용하는지 조사하기 위한 설문조사입니다. 설문은 대략 30 분정도 소요될 예정입니다. 시간 내주셔서 감사합니다. 우선 아래 소셜미디어에 대한 정의와 종류를 읽으신 후 맨 아래 -> 버튼을 눌러주세요.

(Thank you for participating in the survey. This survey investigates how Korean immigrants living in the U.S. use social media to find information needed to live. The survey will take about 30 minutes. Thank you for your time. First, please read the definition and type of social media below. Then, press ->(next) button at the right corner of bottom.)

Q232 소셜미디어 정의 (Definition of social media)

소셜미디어란 사회적 상호작용을 가능하게 하는 인터넷을 통한 의사소통 수단으로써, 블로그, 마이크로 블로그, 동영상 공유 서비스, 소셜네트워크 서비스 등의 정보를 만들고 공유하는 온라인 통신 수단을 포함한다.

(Social media is a means of communication through the Internet that enables social interaction, and includes online communication means that create and share information such as blogs, microblogs, video sharing services, and social network services.)

소셜미디어 종류 (Types of social media)

종류	정의	예
블로그 (Blogs)	사용자가 일련의 게시물에서 일기와 같은 방식으로 주제에 대한 생각과 의견을 공유할 수 있습니다. 온라인에 게시된 개별 항목 또는 "게시물"로 구성된 토론 또는 정보 사이트를 만듭니다. (Allows a user to share thoughts and opinions on subjects in a diary like fashion in a series of posts. Creates discussions or an informational site published online and consisting of discrete entries or "posts.")	블로그
마이크로블로그 (Micro blogs)	사용자가 만든 핸들 또는 사용자 이름과 통신할 수 있으며, 사용자의 팔로워로 전송되는 일반적으로 주로 140 자 이하의 짧은 메시지를 작성할 수 있습니다. (Allows users to communicate with a handle or username that the user creates, and can write short messages, typically 140 characters that are sent to the user's followers.)	트위터, 사이월드, 카카오 스토리 등

<p>사진공유 (Photo sharing)</p>	<p>게시된 이미지를 통해 사용자가 공유, 주석 및 연결할 수 있는 온라인 이미지 및 비디오 호스팅 사이트입니다. (Online image and video hosting site that allows users to share, comment, and connect through posted images.)</p>	<p>플리커, 핀터레스트 등</p>
<p>팟캐스트 (Podcast)</p>	<p>인터넷에 저장되고 다운로드가 가능한 멀티미디어 디지털 파일로, 온라인에서 자유롭게 사용할 수 있는 라디오 방송과 유사합니다. (Multimedia digital file that is stored on the Internet and is available to download, similar to a radio broadcast that is available freely online.)</p>	<p>팟캐스트</p>
<p>RSS feeds</p>	<p>리치 사이트 요약(Rich Site Summary) 또는 정말로 간단한 신디케이션(Really Simple Syndication)은 사용자가 구독하고 팔로우할 수 있는 뉴스, 이벤트 및 블로그 항목을 나타내는 자주 업데이트되는 웹 피드입니다. RSS는 다른 웹 사이트의 현재 헤드라인을 가져와 빠른 검색을 위해 해당 헤드라인을 컴퓨터로 푸시합니다. (Rich Site Summary or Really Simple Syndication is a frequently updated Web feed that indicates news, events, and blog entries that a user can subscribe to and follow. RSS takes current headlines from different Websites and pushes those headlines down to your computer for quick scanning.)</p>	<p>RSS feeds</p>
<p>소셜 네트워크 서비스 (소셜 Q/A 사이트 포함) (Social networking services, including social Q&A site)</p>	<p>사용자가 큰 소셜 네트워크의 일부인 관심사, 배경 및 활동을 통해 소통하고 연결할 수 있는 온라인 플랫폼입니다. (Online platform, for users to communicate and connect via interests, backgrounds and activities, which are part of a large social network.)</p>	<p>Facebook, Instagram, LinkedIn, Reddit, 지식인, Quora 등</p>
<p>비디오 (Video)</p>	<p>일반적으로 대중이 무료로 사용할 수 있는 비디오의 콘텐츠 배포입니다. (Content distribution of videos, typically available for free to the public.)</p>	<p>유튜브, 틱톡 등</p>
<p>위키 (Wikis)</p>	<p>사용자가 웹 페이지 내용을 온라인으로 작성 및 편집할 수 있도록 허용합니다. 하이퍼링크와 교차 링크는 페이지 사이를 연결합니다. 사용자는 Wiki를 편집할 수 있습니다. (Allow users to create and edit Web page content online. Hyperlinks and crosslinks connect between pages. Users are allowed and encouraged to edit wikis.)</p>	<p>위키피디아, 나무위키</p>

Q183 아래 질문은 설문자의 배경정보에 대한 질문입니다. 해당되는 항목을 선택해 주세요.
(The question below is about the surveyor's background information. Please select the applicable item.)

Q1 나이 (Age)

- 18-29 (1)
 - 30-39 (2)
 - 40-49 (3)
 - 50 이상 (over) (4)
-

Q2 성별 (Gender)

- 남성 (Male) (1)
 - 여성 (Female) (2)
 - 남자/여자의 성별 (Another gender identity not listed here) (3)
 - 답변하지 않음 (Prefer not to say) (4)
-

Q3 최종학력 (Education level)

- 고졸 미만 (Less than High School) (1)
 - 고졸 (High School) (2)
 - 전문대 (Associates) (3)
 - 대졸 (Bachelor) (4)
 - 석사 (Master) (5)
 - 박사 (Doctorate) (6)
 - 기타 (Other) (7)
-

Q4 연간 소득수준 (Yearly Income Level)

- \$0-\$32,000 (1)
 - \$32,001-\$53,000 (2)
 - \$53,001-\$106,000 (3)
 - \$106,000 이상 (over) (4)
 - 답변하지 않음 (Prefer not to say) (5)
-

Q5 결혼 여부 (Marital status)

- 독신/미혼 (Single/never married) (1)
 - 결혼/동거 (Married/Domestic partnership) (2)
 - 과부 (Widowed) (3)
 - 이혼 (Divorced) (4)
 - 별거 (Separated) (5)
 - 답변하지 않음 (Prefer not to say) (6)
-

Q6 자녀가 있으십니까? (Do you have child(ren)?)

- 네 (Yes) (1)
- 아니오 (No) (2)
- 임신중 (Pregnant) (3)
- 답변하지 않음 (Prefer not to say) (4)

End of Block: Demographic

Start of Block: Technology Level

Q184 아래 질문들은 인터넷 사용에 관련된 질문들입니다. 해당되는 항목을 선택해 주세요.
(The questions below are related to Internet use. Please select the applicable item.)

Q7 인터넷 검색 수준 (Search skills in the Internet)

- 초보 (정보검색 시 도움이 필요함); Beginner (I need some help to search something) (1)
 - 평균 (구글 같은 검색사이트 자주 사용함); Intermediate (Fluent with using commercial search engines like Google) (2)
 - 고급 (검색창의 고급 검색 기능 사용 가능); Advanced (Fluent with using advanced search functions) (3)
 - 전문가 (복잡한 불리언 검색 방식, 전문 검색 방식 사용 가능); Expert (Good at using complex Boolean operations, understand back-end information retrieval mechanisms) (4)
-

Q8 인터넷 사용 기간 (Years of using Internet)

- 0-3 년 (years) (1)
 - 4-6 년 (years) (2)
 - 7-9 년 (years) (3)
 - 10 년 이상 (over) (4)
-

Q9 소셜미디어 사용 기간 (Years of using social media)

- 0-3 년 (years) (1)
 - 4-6 년 (years) (2)
 - 7-9 년 (years) (3)
 - 10 년 이상 (over) (4)
-

Q10 소셜미디어 방문 빈도: 일주일에 얼마나 자주 소셜미디어를 방문하십니까?
(Frequency of visiting social media: How often do you visit social media in a week?)

- 1 - 거의 없다 (Almost never) (1)
- 2 - 아주 간혹 방문 (Very rarely) (2)
- 3 - 간혹 (Rarely) (3)
- 4 - 때때로 (Occasionally) (4)
- 5 - 종종 (Often) (5)
- 6 - 아주 자주 (Very often) (6)
- 7 - 항상 (Use all the time) (7)

End of Block: Technology Level

Start of Block: Cultural Background

Q185 아래 질문들은 미국 거주 배경에 대한 질문들입니다. 해당되는 항목을 선택해 주세요.
(The questions below are about residency background in the United States. Please select the applicable item.)

Q11 얼마나 오랫동안 미국에 살고 계십니까? (How long have you been in the US?)

- 6 개월 이상 1 년 이하 (Six months over and a year less) (1)
 - 1-5 년 (Years) (2)
 - 5-10 년 (Years) (3)
 - 10 년 이상 (Over) (4)
-

Q12 현재 미국에 어떤 신분으로 체류중이십니까? (Current Immigrant (Visa) Status)

- H (1)
 - Green card/Permanent resident (2)
 - Citizenship (3)
 - F (4)
 - J (5)
 - E (6)
 - 기타 (Other)를 선택하시면 아래 체류 신분을 기입해 주세요 (If you select other, please specify:) (7)
-

Q13 한국어 숙련도 (Korean Language Proficiency)

- 1 - 아예 못함 (Extremely improficiency) (1)
 - 2 - 거의 못함 (Very improficiency) (2)
 - 3 - 못함 (Improficiency) (3)
 - 4 - 평균 (Average) (4)
 - 5 - 잘함 (proficiency) (5)
 - 6 - 거의 잘함 (Very improficiency) (6)
 - 7 - 매우 잘함 (Extremely improficiency) (7)
-

Q14 영어 숙련도 (English Language Proficiency)

- 1 - 아예 못함 (Extremely improficiency) (1)
 - 2 - 거의 못함 (Very improficiency) (2)
 - 3 - 못함 (Improficiency) (3)
 - 4 - 평균 (Average) (4)
 - 5 - 잘함 (proficiency) (5)
 - 6 - 거의 잘함 (Very improficiency) (6)
 - 7 - 매우 잘함 (Extremely improficiency) (7)
-

Q15 현재 어떤 일을 하십니까?
(What kind of job do you have?)

- 개인 사업 (Business owner) (1)
 - 공무원 (Government) (2)
 - 교육관련 직업 (Education) (3)
 - 학생 (Student) (4)
 - 주부 (Home maker) (5)
 - 파트타임 직장 (Part-time) (6)
 - 은퇴 (Retired) (7)
 - 장애인 (Disable) (8)
 - 기타 (Other): 직업을 기입해 주세요 (Please write specifically) (9)
-
- 답변하지 않음 (Prefer not to say) (10)
 - 회사원 (Full-time worker) (11)

End of Block: Cultural Background

Start of Block: Cultural self-assessment

Q186 아래 질문들은 개인이 가진 문화적 성향에 관련된 질문들입니다. 해당되는 항목을 선택해 주세요.
(The questions below are related to individual cultural tendencies. Please select the applicable item.)

Q16 다른 언어를 쓰는 사람과 이야기하는 것이 편하다.
(Comfortable with people who speak different language.)

- 1 - 전혀 그렇지 않다 (Extremely disagree) (1)
 - 2 - 그렇지 않다 (Very disagree) (2)
 - 3 - 별로 그렇지 않다 (Disagree) (3)
 - 4 - 보통이다 (Neutral) (4)
 - 5 - 약간 그렇다 (Agree) (5)
 - 6 - 그렇다 (Very agree) (6)
 - 7 - 매우 그렇다 (Extremely agree) (7)
-

Q17 다양성은 사람들이 같이 일하는 것을 힘들게 하지 않는다.
(Diversity does not make it harder for people to work together.)

- 1 - 전혀 그렇지 않다 (Extremely disagree) (1)
 - 2 - 그렇지 않다 (Very disagree) (2)
 - 3 - 별로 그렇지 않다 (Disagree) (3)
 - 4 - 보통이다 (Neutral) (4)
 - 5 - 약간 그렇다 (Agree) (5)
 - 6 - 그렇다 (Very agree) (6)
 - 7 - 매우 그렇다 (Extremely agree) (7)
-

Q18 문화적 차이는 다른 문화를 가진 사람들과 의사소통에 영향을 끼치지 않는다.

(Cultural difference has not an impact on the effectiveness of my communication with people from different backgrounds.)

- 1 - 전혀 그렇지 않다 (Extremely disagree) (1)
 - 2 - 그렇지 않다 (Very disagree) (2)
 - 3 - 별로 그렇지 않다 (Disagree) (3)
 - 4 - 보통이다 (Neutral) (4)
 - 5 - 약간 그렇다 (Agree) (5)
 - 6 - 그렇다 (Very agree) (6)
 - 7 - 매우 그렇다 (Extremely agree) (7)
-

Q19 외부적인 요인 (예:전문분야, 국적, 문화적 타부)은 나의 생각과 행동에 영향을 끼치지 않는다.

(External influence (e.g., profession, nationality, cultural taboo) does not affect the way I think and behave.)

- 1 - 전혀 그렇지 않다 (Extremely disagree) (1)
 - 2 - 그렇지 않다 (Very disagree) (2)
 - 3 - 별로 그렇지 않다 (Disagree) (3)
 - 4 - 보통이다 (Neutral) (4)
 - 5 - 약간 그렇다 (Agree) (5)
 - 6 - 그렇다 (Very agree) (6)
 - 7 - 매우 그렇다 (Extremely agree) (7)
-

Q20 다른 사람을 이해하기 위해서는 그 사람의 배경을 알 필요가 있다.
(It needs to know about someone's background in order to understanding them.)

- 1 - 전혀 그렇지 않다 (Extremely disagree) (1)
 - 2 - 그렇지 않다 (Very disagree) (2)
 - 3 - 별로 그렇지 않다 (Disagree) (3)
 - 4 - 보통이다 (Neutral) (4)
 - 5 - 약간 그렇다 (Agree) (5)
 - 6 - 그렇다 (Very agree) (6)
 - 7 - 매우 그렇다 (Extremely agree) (7)
-

Q21 다른 사람들은 나와 같은 믿음과 태도를 가지고 있지 않을 것이다.
(Other people have not the same basic beliefs and attitudes as I do.)

- 1 - 전혀 그렇지 않다 (Extremely disagree) (1)
 - 2 - 그렇지 않다 (Very disagree) (2)
 - 3 - 별로 그렇지 않다 (Disagree) (3)
 - 4 - 보통이다 (Neutral) (4)
 - 5 - 약간 그렇다 (Agree) (5)
 - 6 - 그렇다 (Very agree) (6)
 - 7 - 매우 그렇다 (Extremely agree) (7)
-

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Q21 나는 미국에 있는 한국인 친구나 친척들과 이야기를 자주 한다.
(I talk to my Korean friends or relatives in the United States a lot.)

- 1 - 전혀 그렇지 않다 (Extremely disagree) (1)
 - 2 - 그렇지 않다 (Very disagree) (2)
 - 3 - 별로 그렇지 않다 (Disagree) (3)
 - 4 - 보통이다 (Neutral) (4)
 - 5 - 약간 그렇다 (Agree) (5)
 - 6 - 그렇다 (Very agree) (6)
 - 7 - 매우 그렇다 (Extremely agree) (7)
-

Q22 나는 나의 미국인 친구들과 이야기를 자주 한다.
(I talk to my American friends a lot.)

- 1 - 전혀 그렇지 않다 (Extremely disagree) (1)
 - 2 - 그렇지 않다 (Very disagree) (2)
 - 3 - 별로 그렇지 않다 (Disagree) (3)
 - 4 - 보통이다 (Neutral) (4)
 - 5 - 약간 그렇다 (Agree) (5)
 - 6 - 그렇다 (Very agree) (6)
 - 7 - 매우 그렇다 (Extremely agree) (7)
-

Q23 나는 질문이 있을 때 온라인으로 이야기하는 것을 선호한다.
(I prefer to connect virtually if I have a question.)

- 1 - 전혀 그렇지 않다 (Extremely disagree) (1)
- 2 - 그렇지 않다 (Very disagree) (2)
- 3 - 별로 그렇지 않다 (Disagree) (3)
- 4 - 보통이다 (Neutral) (4)
- 5 - 약간 그렇다 (Agree) (5)
- 6 - 그렇다 (Very agree) (6)
- 7 - 매우 그렇다 (Extremely agree) (7)

End of Block: Cultural self-assessment

Start of Block: Type of social media

Q85 지금부터는 소셜미디어 사용에 대하여 질문 드리겠습니다. 아래 설명에 맞춰서 답변 부탁드립니다. 다음 버튼을 누르시면 8 가지 종류의 소셜미디어에 대한 질문이 있습니다. 사용하시는 소셜미디어가 있으시면 답변해주시고, 없으시면 질문에 답변하지 않고 넘어가주세요.

(From now on, I will ask you about using social media. Please reply according to the explanation below. If you press the next button, there are questions regarding eight types of social media. If you have any social media you are using, please answer the questions. If you don't, please move on without answering questions.)

- 소셜미디어 방문빈도: 일주일에 얼마나 자주 소셜미디어를 방문하십니까?

(Frequency of social media visit: How often do you visit social media in a week?)

o 범위: 1 거의 안함, 2 아주 약간 (일주일에 한번), 3 약간 (일주일에 이틀 정도), 4 종종 (일주일에 3 일), 5 자주 (일주일에 4 일), 6 (매우 자주 (일주일에 5 일), 7 항상 (매일))

o Range: 1 almost never, 2 Very rarely (once a week),

3 rarely (less than two days a week), 4 occasionally (Three days a week),

5 often (four days a week), 6 very often (Five to six days a week),

7 use all the time (every day)

- 사용편의성: 소셜미디어를 얼마나 쉽게 사용하십니까?

(Ease of Use: How easy do you use social media?)

o 범위: 1 매우 어려움, 2 약간 어려움, 3 어려움, 4 중립, 5 쉬움, 6 약간 쉬움, 7 매우 쉬움

o Range: 1 Extremely difficult, 2 very difficult, 3 hard, 4 Neutral, 5 easy, 6 very easy,

7 Extremely easy

- 만족도: 소셜 미디어를 이용한 전반적인 정보 검색에 얼마나 만족하십니까?

(Satisfaction: How satisfied are you with the overall information searching using social media?)

- o 범위: 1 매우 불만, 2 약간 불만, 3 불만, 4 보통, 5 만족, 6 약간 만족, 7 매우 만족
- o Range: 1 Extremely unsatisfied, 2 Very unsatisfied, 3 Unsatisfied, 4 Neutral, 5 Satisfied, 6 very satisfied, 7 Extremely satisfied

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Q187 1. 블로그 (Blogs): 개인 블로그, 기업 블로그, 뉴스 블로그 등 (Personal blogs, business blogs, News blogs, etc.)

사용자가 일련의 게시물에서 일기와 같은 방식으로 주제에 대한 생각과 의견을 공유할 수 있습니다.

온라인에 게시된 개별 항목 또는 "게시물"로 구성된 토론 또는 정보 사이트를 만듭니다.

Allows a user to share thoughts and opinions on subjects in a diary-like fashion in a series of posts. Creates discussions or an informational site published online and consisting of discrete entries or "posts."

Q24 미국 블로그 (Any blog in America) (사용하지 않으시면 답변하지 말고 다음 질문으로 넘어가 주세요.

Please don't answer and skip to the next question if you are not use it.)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
만족도 (Satisfaction) (3)	<input type="radio"/>						

Q25 네이버 블로그 (Naver blog) (사용하지 않으시면 답변하지 말고 다음 질문으로 넘어가 주세요. Please don't answer and skip to the next question if you are not use it.)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
만족도 (Satisfaction) (3)	<input type="radio"/>						

Q26 다음 카페 (Daum cafe) (사용하지 않으시면 답변하지 말고 다음 질문으로 넘어가 주세요. Please don't answer and skip to the next question if you are not use it.)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
만족도 (Satisfaction) (3)	<input type="radio"/>						

Q27 그 외 사용하시는 블로그가 있으시면 기입해 주세요. (Other? Please specify)

Q28 해당 블로그에 대하여 아래 질문에 답변 부탁드립니다. (Please answer the following questions for the blog you wrote in the other.)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
만족도 (Satisfaction) (3)	<input type="radio"/>						

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Q87 2. 미니/마이크로 블로그 (Micro blogs): 트위터, 사이월드, 카카오 스토리 등 (Twitter, Kakao Story, Cyword, etc.)

사용자가 만든 핸들 또는 사용자 이름과 통신할 수 있으며, 일반적으로 사용자의 팔로워로 전송되는 일반적으로 140 자 이하의 짧은 메시지를 작성할 수 있습니다.

Allows users to communicate with a handle or username that the user creates, and can write short messages, typically 140 characters or less that are sent to the user's followers.

Q29 트위터 (Twitter)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
만족도 (Satisfaction) (3)	<input type="radio"/>						

Q30 카카오 스토리 (Kakao Story)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
만족도 (Satisfaction) (3)	<input type="radio"/>						

Q31 그 외 사용하시는 마이크로 블로그가 있으시면 기입해 주세요. (Other? Please specify)

Q32 그 마이크로 블로그 대하여 아래 질문에 답변 부탁드립니다. (Please answer the following questions for the micro blog you wrote in the other.)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
만족도 (Satisfaction) (3)	<input type="radio"/>						

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Q88 3. 사진공유 서비스 (Photo sharing): 플리커, 핀터레스트 등 (Flickr, Pinterest, etc.)

게시된 이미지를 통해 사용자가 공유, 주석 및 연결할 수 있는 온라인 이미지 및 비디오 호스팅 사이트입니다.

(Online image and video hosting site that allows users to share, comment, and connect through posted images.)

Q33 플리커 (Flickr)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
만족도 (Satisfaction) (3)	<input type="radio"/>						

Q34 핀터레스트 (Pinterest)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
만족도 (Satisfaction) (3)	<input type="radio"/>						

Q35 그 외 사용하시는 사진 공유 사이트가 있으시면 기입해 주세요. (Other? Please specify)

Q36 그 사진 공유 사이트 대하여 아래 질문에 답변 부탁드립니다. (Please answer the following questions for the photo sharing site you wrote in the other.)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
만족도 (Satisfaction) (3)	<input type="radio"/>						

Page Break

Q37 4. 소셜 네트워크 서비스 (소셜 Q/A 사이트 포함) (SNS: Social Network Service including social Q/A):

Facebook, Instagram, LinkedIn, Reddit, 지식인, Quora, etc.

사용자가 큰 소셜 네트워크의 일부인 관심사, 배경 및 활동을 통해 소통하고 연결할 수 있는 온라인 플랫폼입니다. 그리고 서로 질문을 통해 답변을 주고 받는 사이트도 포함됩니다.

(Online platform, for users to communicate and connect via interests, backgrounds and activities, which are part of a large social network. It also includes sites that answer each other's questions.)

Q37 페이스북 (Facebook)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
만족도 (Satisfaction) (3)	<input type="radio"/>						

Q38 인스타그램 (Instagram)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
만족도 (Satisfaction) (3)	<input type="radio"/>						

Q39 레딧 (Reddit)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
만족도 (Satisfaction) (3)	<input type="radio"/>						

Q40 쿠오라 (Quora)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
만족도 (Satisfaction) (3)	<input type="radio"/>						

Q41 링크드인 (LinkedIn)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
만족도 (Satisfaction) (3)	<input type="radio"/>						

Q42 네이버 지식인 (Naver Jisik-in)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
만족도 (Satisfaction) (3)	<input type="radio"/>						

Q43 스냅챗 (Snapchat)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
만족도 (Satisfaction) (3)	<input type="radio"/>						

Q44 그 외 사용하시는 소셜네트워크 사이트가 있으시면 기입해 주세요. (Other? Please specify)

Q45 그 소셜네트워크 사이트에 대하여 아래 질문에 답변 부탁드립니다. (Please answer the following questions for the SNS you wrote in the other.)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
만족도 (Satisfaction) (3)	<input type="radio"/>						

Page Break

Q46 5. 비디오 공유 (Video): 유튜브, 틱톡 등 (YouTube, TikTok, etc.)
일반적으로 대중이 무료로 사용할 수 있는 비디오의 콘텐츠 배포입니다.
(Content distribution of videos, typically available for free to the public.)

Q46 유튜브 (YouTube)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
만족도 (Satisfaction) (3)	<input type="radio"/>						

Q47 틱톡(TikTok)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
만족도 (Satisfaction) (3)	<input type="radio"/>						

Q48 그 외 사용하시는 비디오 사이트가 있으시면 기입해 주세요. (Other? Please specify)

Q49 그 비디오 사이트에 대하여 아래 질문에 답변 부탁드립니다. (Please answer the following questions for the video site you wrote in the other.)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
만족도 (Satisfaction) (3)	<input type="radio"/>						

Page Break

Q91 6. 위키 (Wiki): 위키피디아, 나무위키 등 (Wikipedia, NamuWiki, etc.)

사용자가 웹 페이지 내용을 온라인으로 작성 및 편집할 수 있도록 허용합니다. 하이퍼링크와 교차 링크는 페이지 사이를 연결합니다. 사용자는 Wiki 를 편집할 수 있습니다

(Allow users to create and edit Web page content online. Hyperlinks and crosslinks connect between pages. Users are allowed and encouraged to edit wikis.)

Q50 위키피디아 (Wikipedia)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
만족도 (Satisfaction) (3)	<input type="radio"/>						

Q51 나무 위키 (Namu Wiki)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
만족도 (Satisfaction) (3)	<input type="radio"/>						

Q52 그 외 사용하시는 위키 사이트가 있으시면 기입해 주세요. (Other? Please specify)

Q53 그 위키 사이트에 대하여 아래 질문에 답변 부탁드립니다. (Please answer the following questions for the wiki site you wrote in the other.)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
만족도 (Satisfaction) (3)	<input type="radio"/>						

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Q92 기타

7. 팟캐스트 (Podcast)

인터넷에 저장되고 다운로드가 가능한 멀티미디어 디지털 파일로, 온라인에서 자유롭게 사용할 수 있는 라디오 방송과 유사합니다. (Multimedia digital file that is stored on the Internet and is available to download, similar to a radio broadcast that is available freely online.)

8. RSS

리치 사이트 요약(Rich Site Summary) 또는 정말로 간단한 신디케이션(Really Simple Syndication)은 사용자가 구독하고 팔로우할 수 있는 뉴스, 이벤트 및 블로그 항목을 나타내는 자주 업데이트되는 웹 피드입니다.

RSS 는 다른 웹 사이트의 현재 헤드라인을 가져와 빠른 검색을 위해 해당 헤드라인을 컴퓨터로 푸시합니다. (Rich Site Summary or Really Simple Syndication is a frequently updated Web feed that indicates news, events, and blog entries that a user can subscribe to and follow. RSS takes current headlines from different Websites and pushes those headlines down to your computer for quick scanning.)

Q54 RSS feeds

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
만족도 (Satisfaction) (3)	<input type="radio"/>						

Q55 팟캐스트 (Podcast)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
만족도 (Satisfaction) (3)	<input type="radio"/>						

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Q56 지금까지 나온 사이트 외에 다른 소셜미디어를 사용하십니까? 있으시면 기입해주세요.
(Do you use any other social media? If yes, please specify.)

Q57 그에 대하여 아래 질문에 답변 부탁드립니다. (Please answer the following questions for the other you wrote.)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
만족도 (Satisfaction) (3)	<input type="radio"/>						

Q58 이 외에도 또 있습니까? (Do you have more?)

- 네 (Yes) (1)
- 아니오 (No) (2)

Display This Question:

If 이 외에도 또 있습니까? (Do you have more?) = 네 (Yes)

Q59 지금까지 나온 사이트 외에 다른 소셜미디어를 사용하십니까? 있으시면 기입해주세요.
(Do you use any other social media? If yes, please specify.)

Display This Question:

If 이 외에도 또 있습니까? (Do you have more?) = 네 (Yes)

Q60 그에 대하여 아래 질문에 답변 부탁드립니다. (Please answer the following questions for the other you wrote.)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
만족도 (Satisfaction) (3)	<input type="radio"/>						

End of Block: Type of social media

Start of Block: Education information

Q86 지금부터는 자주 사용하는 소셜미디어와 찾으시는 정보검색의 연관성을 알기 위한 설문조사입니다. 해당 정보검색에 자주 사용하시는 소셜미디어 3 가지를 기입하시고, 아래의 질문에 답변부탁드립니다. (Please list top three social media you use for the types of information needs, and then answer questions.)

- 소셜미디어 방문빈도: 일주일에 얼마나 자주 소셜미디어를 방문하십니까?

(Frequency of social media visit: How often do you visit social media in a week?)

o 범위: 1 거의 안함 2 아주 약간 (일주일에 한번), 3 약간 (일주일에 이틀 정도), 4 종종 (일주일에 3 일), 5 자주 (일주일에 4 일), 6 (매우 자주 (일주일에 5 일), 7 항상 (매일))

o Range: 1 almost never, 2 Very rarely (less than once a week),
3 rarely (less than two days a week), 4 occasionally (Three days a week),
5 often (four days a week), 6 very often (Five to six days a week),
7 use all the time (every day)

- 사용편의성: 소셜미디어를 얼마나 쉽게 사용하십니까?

(Ease of Use: How easy do you use social media?)

o 범위: 1 매우 어려움, 2 약간 어려움, 3 어려움, 4 중립, 5 쉬움, 6 약간 쉬움, 7 매우 쉬움

o Range: 1 Extremely difficult, 2 very difficult, 3 hard, 4 Neutral, 5 easy, 6 very easy,
7 Extremely easy

- 만족도: 소셜 미디어를 이용한 전반적인 정보 검색에 얼마나 만족하십니까?, 소셜미디어에서 검색된 정보의 질에 대해 얼마나 만족하십니까?

(Satisfaction: How satisfied are you with the overall information searching using social media?, How satisfied are you with the quality of information retrieved from social media?)

o 범위: 1 매우 불만, 2 약간 불만, 3 불만, 4 보통, 5 만족, 6 약간 만족, 7 매우 만족

o Range: 1 Extremely unsatisfied, 2 Very unsatisfied, 3 Unsatisfied, 4 Neutral, 5 Satisfied, 6 very satisfied, 7 Extremely satisfied

Page Break

Q70 교육정보 (예: 학교수준, 학비, 학교 시스템 (얼마나 한국과 다른지), 학교 위치 등) 관련 소셜미디어 사용에 관한 질문입니다. 가능하면 최대 상위 3 개의 소셜미디어를 적어주시고, 만약 하나도 없으시면 맨 밑에 질문에만 답변해주시고 다음 항목으로 넘어가 주세요.

(Questions for Education information (e.g., School quality, tuition, school system (e.g., how different from Korea?), school location). Please write top three preferred social media if you can. If you don't have any, please answer the last question and then move to next section.)

Q61 가장 많이 선호하시는 소셜미디어를 적어주세요 (First preferred social media.)

Q62 이유를 적어주세요 (Please tell me the reason.)

Q63 첫번째 소셜미디어에 대해 답변 부탁드립니다. (Please answer for the first social media.)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
정보 질 만족도 (Information Quality Satisfaction) (3)	<input type="radio"/>						
정보검색 만족도 (Information Searching Process Satisfaction) (4)	<input type="radio"/>						

Q64 두번째로 선호하시는 소셜미디어를 적어주세요 (Second preferred social media.)

Q65 이유를 적어주세요 (Please tell me the reason.)

Q66 두번째 소셜미디어에 대해 답변 부탁드립니다. (Please answer for the second social media.)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
정보 질 만족도 (Information Quality Satisfaction) (3)	<input type="radio"/>						
정보검색 만족도 (Information Searching Process Satisfaction) (4)	<input type="radio"/>						

Q67 세번째로 선호하시는 소셜미디어를 적어주세요 (Third preferred social media.)

Q68 이유를 적어주세요 (Please tell me the reason.)

Q69 세번째 소셜미디어에 대해 답변 부탁드립니다. ((Please answer for the third social media.))

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
정보 질 만족도 (Information Quality Satisfaction) (3)	<input type="radio"/>						
정보검색 만족도 (Information Searching Process Satisfaction) (4)	<input type="radio"/>						

Q70 만약 소셜미디어를 사용하지 않으시면, 어떤 곳에서 해당 정보를 찾으시는지 알려주세요.
(If you are not use social media, please tell me what kind of information source you used.)

End of Block: Education information

Start of Block: Financial information

Q77 금융정보 (예: 은행, 의료보험, 자동차 보험, 집/렌트 보험, 생명보험, 대출, 세금 등) 관련
소셜미디어 사용에 관한 질문입니다. 상위 3 개의 소셜미디어를 적어주시고, 없으시면 맨 밑에 질문에
답변해주시고 다음 항목으로 넘어가 주세요.

(Questions for Financial information (e.g., Bank, health insurance, car insurance, home/rent insurance, life insurance, loan insurance, taxes). Please write top three preferred social media. If you don't have any, please answer the last question and then move to next section.)

Q71 가장 많이 선호하시는 소셜미디어를 적어주세요 (First preferred social media.)

Q72 이유를 적어주세요 (Please tell me the reason.)

Q73 첫번째 소셜미디어에 대해 답변 부탁드립니다. (Please answer for the first social media.)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
정보 질 만족도 (Information Quality Satisfaction) (3)	<input type="radio"/>						
정보검색 만족도 (Information Searching Process Satisfaction) (4)	<input type="radio"/>						

Q74 두번째로 선호하시는 소셜미디어를 적어주세요 (Second preferred social media.)

Q75 이유를 적어주세요 (Please tell me the reason.)

Q76 두번째 소셜미디어에 대해 답변 부탁드립니다. (Please answer for the second social media.)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
정보 질 만족도 (Information Quality Satisfaction) (3)	<input type="radio"/>						
정보검색 만족도 (Information Searching Process Satisfaction) (4)	<input type="radio"/>						

Q77 세번째로 선호하시는 소셜미디어를 적어주세요 (Third preferred social media.)

Q78 이유를 적어주세요 (Please tell me the reason.)

Q79 세번째 소셜미디어에 대해 답변 부탁드립니다. (Please answer for the third social media.)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
정보 질 만족도 (Information Quality Satisfaction) (3)	<input type="radio"/>						
정보검색 만족도 (Information Searching Process Satisfaction) (4)	<input type="radio"/>						

Q80 만약 소셜미디어를 사용하지 않으시면, 어떤 곳에서 해당 정보를 찾으시는지 알려주세요.
(If you are not use social media, please tell me what kind of information source you used.)

End of Block: Financial information

Start of Block: Health

Q97 건강 및 의료정보 (예: 병원과 의사(추천), 예방치료 정보 (정기검진 또는 백신), 검사/특수질병 정보, 약품) 관련 소셜미디어 사용에 관한 질문입니다. 상위 3 개의 소셜미디어를 적어주시고, 없으시면 맨 밑에 질문에만 답변해주시고 다음 항목으로 넘어가 주세요.

(Questions for Health information (e.g., Hospital and doctor (e.g., recommendation), preventive care information (e.g., annual checktops or vaccines), diagnosis/specific disease information, medications). Please write top three preferred social media. If you don't have any, please answer the last question and then move to next section.)

Q81 가장 많이 선호하시는 소셜미디어를 적어주세요 (First preferred social media.)

Q82 이유를 적어주세요 (Please tell me the reason.)

Q83 첫번째 소셜미디어에 대해 답변 부탁드립니다. (Please answer for the first social media.)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
정보 질 만족도 (Information Quality Satisfaction) (3)	<input type="radio"/>						
정보검색 만족도 (Information Searching Process Satisfaction) (4)	<input type="radio"/>						

Q84 두번째로 선호하시는 소셜미디어를 적어주세요 (Second preferred social media.)

Q85 이유를 적어주세요 (Please tell me the reason.)

Q86 두번째 소셜미디어에 대해 답변 부탁드립니다. (Please answer for the second social media.)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
정보 질 만족도 (Information Quality Satisfaction) (3)	<input type="radio"/>						
정보검색 만족도 (Information Searching Process Satisfaction) (4)	<input type="radio"/>						

Q87 세번째로 선호하시는 소셜미디어를 적어주세요 (Third preferred social media.)

Q88 이유를 적어주세요 (Please tell me the reason.)

Q89 세번째 소셜미디어에 대해 답변 부탁드립니다. (Please answer for the third social media.)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
정보 질 만족도 (Information Quality Satisfaction) (3)	<input type="radio"/>						
정보검색 만족도 (Information Searching Process Satisfaction) (4)	<input type="radio"/>						

Q90 만약 소셜미디어를 사용하지 않으시면, 어떤 곳에서 해당 정보를 찾으시는지 알려주세요.
(If you are not use social media, please tell me what kind of information source you used.)

End of Block: Health

Start of Block: Law

Q105 법률정보 (예: 이민법, 변호사 찾기, 위법과 벌금을 피하기 위한 일반적인 법률 조언, 교통법, 세금관련 법률 등) 관련 소셜미디어 사용에 관한 질문입니다. 상위 3 개의 소셜미디어를 적어주시고, 없으시면 맨 밑에 질문에만 답변해주시고 다음 항목으로 넘어가 주세요.

(Questions for Law information (e.g., Immigrant law, find lawyer, General law for avoiding illegal issues including fine, driving law, tax return law). Please write top three preferred social media. If you don't have any, please answer the last question and then move to next section.)

Q91 가장 많이 선호하시는 소셜미디어를 적어주세요 (First preferred social media.)

Q92 이유를 적어주세요 (Please tell me the reason.)

Q93 첫번째 소셜미디어에 대해 답변 부탁드립니다. (Please answer for the first social media.)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
정보 질 만족도 (Information Quality Satisfaction) (3)	<input type="radio"/>						
정보검색 만족도 (Information Searching Process Satisfaction) (4)	<input type="radio"/>						

Q94 두번째로 선호하시는 소셜미디어를 적어주세요 (Second preferred social media.)

Q95 이유를 적어주세요 (Please tell me the reason.)

Q96 두번째 소셜미디어에 대해 답변 부탁드립니다. (Please answer for the second social media.)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
정보 질 만족도 (Information Quality Satisfaction) (3)	<input type="radio"/>						
정보검색 만족도 (Information Searching Process Satisfaction) (4)	<input type="radio"/>						

Q97 세번째로 선호하시는 소셜미디어를 적어주세요 (Third preferred social media.)

Q98 이유를 적어주세요 (Please tell me the reason.)

Q99 세번째 소셜미디어에 대해 답변 부탁드립니다. (Please answer for the third social media.)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
정보 질 만족도 (Information Quality Satisfaction) (3)	<input type="radio"/>						
정보검색 만족도 (Information Searching Process Satisfaction) (4)	<input type="radio"/>						

Q100 만약 소셜미디어를 사용하지 않으시면, 어떤 곳에서 해당 정보를 찾으시는지 알려주세요.
(If you are not use social media, please tell me what kind of information source you used.)

End of Block: Law

Start of Block: Monitoring

Q113 모니터링 정보 (예: 새로운 환경/문화에 대한 정보 찾기, 문화/종교 이벤트 정보, 정치 정보 및 이벤트, 전반적인 사회 관련 정보/뉴스 등) 관련 소셜미디어 사용에 관한 질문입니다. 상위 3 개의 소셜미디어를 적어주시고, 없으시면 맨 밑에 질문에만 답변해주시고 다음 항목으로 넘어가 주세요.

(Questions for Monitoring information (e.g., Monitoring the environment for information about the new culture, Information about cultural or religious events, Political information and current events, Information about broader societal contexts including identity issues, news/events). Please write top three preferred social media. If you don't have any, please answer the last question and then move to next section.)

Q101 가장 많이 선호하시는 소셜미디어를 적어주세요 (First preferred social media.)

Q102 이유를 적어주세요 (Please tell me the reason.)

Q103 첫번째 소셜미디어에 대해 답변 부탁드립니다. (Please answer for the first social media.)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
정보 질 만족도 (Information Quality Satisfaction) (3)	<input type="radio"/>						
정보검색 만족도 (Information Searching Process Satisfaction) (4)	<input type="radio"/>						

Q104 두번째로 선호하시는 소셜미디어를 적어주세요 (Second preferred social media.)

Q105 이유를 적어주세요 (Please tell me the reason.)

Q106 두번째 소셜미디어에 대해 답변 부탁드립니다. (Please answer for the second social media.)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
정보 질 만족도 (Information Quality Satisfaction) (3)	<input type="radio"/>						
정보검색 만족도 (Information Searching Process Satisfaction) (4)	<input type="radio"/>						

Q107 세번째로 선호하시는 소셜미디어를 적어주세요 (Third preferred social media.)

Q108 이유를 적어주세요 (Please tell me the reason.)

Q109 세번째 소셜미디어에 대해 답변 부탁드립니다. (Please answer for the third social media.)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
정보 질 만족도 (Information Quality Satisfaction) (3)	<input type="radio"/>						
정보검색 만족도 (Information Searching Process Satisfaction) (4)	<input type="radio"/>						

Q110 만약 소셜미디어를 사용하지 않으시면, 어떤 곳에서 해당 정보를 찾으시는지 알려주세요.
(If you are not use social media, please tell me what kind of information source you used.)

End of Block: Monitoring

Start of Block: Settlement

Q121 정착 정보 (예: 집/렌트(집 종류, 건축일), 날씨정보, 위치편의성(쇼핑몰에서 가까운지?) 등) 관련 소셜미디어 사용에 관한 질문입니다. 상위 3 개의 소셜미디어를 적어주시고, 없으시면 맨 밑에 질문에만 답변해주시고 다음 항목으로 넘어가 주세요.

(Questions for Settlement information (e.g., house/rent (types of house, year of built), weather information, convenience of location (is it closed to shopping mall?). Please write top three preferred social media. If you don't have any, please answer the last question and then move to next section.)

Q111 가장 많이 선호하시는 소셜미디어를 적어주세요 (First preferred social media.)

Q112 이유를 적어주세요 (Please tell me the reason.)

Q113 첫번째 소셜미디어에 대해 답변 부탁드립니다. (Please answer for the first social media.)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
정보 질 만족도 (Information Quality Satisfaction) (3)	<input type="radio"/>						
정보검색 만족도 (Information Searching Process Satisfaction) (4)	<input type="radio"/>						

Q114 두번째로 선호하시는 소셜미디어를 적어주세요 (Second preferred social media.)

Q115 이유를 적어주세요 (Please tell me the reason.)

Q116 두번째 소셜미디어에 대해 답변 부탁드립니다. (Please answer for the second social media.)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
정보 질 만족도 (Information Quality Satisfaction) (3)	<input type="radio"/>						
정보검색 만족도 (Information Searching Process Satisfaction) (4)	<input type="radio"/>						

Q1117 세번째로 선호하시는 소셜미디어를 적어주세요 (Third preferred social media.)

Q118 이유를 적어주세요 (Please tell me the reason.)

Q119 세번째 소셜미디어에 대해 답변 부탁드립니다. (Please answer for the third social media.)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
정보 질 만족도 (Information Quality Satisfaction) (3)	<input type="radio"/>						
정보검색 만족도 (Information Searching Process Satisfaction) (4)	<input type="radio"/>						

Q120 만약 소셜미디어를 사용하지 않으시면, 어떤 곳에서 해당 정보를 찾으시는지 알려주세요.
(If you are not use social media, please tell me what kind of information source you used.)

End of Block: Settlement

Start of Block: Socializing

Q129 사교관련 정보 (예: 현지 친구 정보 찾기, 한국 친구 정보 찾기, 커뮤니티 참여(자원봉사 기회) 등) 관련 소셜미디어 사용에 관한 질문입니다. 상위 3 개의 소셜미디어를 적어주시고, 없으시면 맨 밑에 질문에만 답변해주시고 다음 항목으로 넘어가 주세요.

(Questions for Socializing information (e.g., Find local friends' information, find home country friends' information, community involvement (volunteering opportunities)). Please write top three preferred social media. If you don't have any, please answer the last question and then move to next section.)

Q121 가장 많이 선호하시는 소셜미디어를 적어주세요 (First preferred social media.)

Q122 이유를 적어주세요 (Please tell me the reason.)

Q123 첫번째 소셜미디어에 대해 답변 부탁드립니다. (Please answer for the first social media.)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
정보 질 만족도 (Information Quality Satisfaction) (3)	<input type="radio"/>						
정보검색 만족도 (Information Searching Process Satisfaction) (4)	<input type="radio"/>						

Q124 두번째로 선호하시는 소셜미디어를 적어주세요 (Second preferred social media.)

Q125 이유를 적어주세요 (Please tell me the reason.)

Q126 두번째 소셜미디어에 대해 답변 부탁드립니다. (Please answer for the second social media.)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
정보 질 만족도 (Information Quality Satisfaction) (3)	<input type="radio"/>						
정보검색 만족도 (Information Searching Process Satisfaction) (4)	<input type="radio"/>						

Q127 세번째로 선호하시는 소셜미디어를 적어주세요 (Third preferred social media.)

Q128 이유를 적어주세요 (Please tell me the reason.)

Q129 세번째 소셜미디어에 대해 답변 부탁드립니다. (Please answer for the third social media.)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
정보 질 만족도 (Information Quality Satisfaction) (3)	<input type="radio"/>						
정보검색 만족도 (Information Searching Process Satisfaction) (4)	<input type="radio"/>						

Q130 만약 소셜미디어를 사용하지 않으시면, 어떤 곳에서 해당 정보를 찾으시는지 알려주세요.
(If you are not use social media, please tell me what kind of information source you used.)

End of Block: Socializing

Start of Block: Transportation

Q137 교통 정보 (예: 대중 교통, 차사는 법, 운전 면허 등) 관련 소셜미디어 사용에 관한 질문입니다. 상위 3 개의 소셜미디어를 적어주시고, 없으시면 맨 밑에 질문에만 답변해주시고 다음 항목으로 넘어가 주세요.
(Quesitons for Transportation information (e.g., Public transportation, buying a car, diver license). Please write top three preferred social media. If you don't have any, please answer the last question and then move to next section.)

Q131 가장 많이 선호하시는 소셜미디어를 적어주세요 (First preferred social media.)

Q132 이유를 적어주세요 (Please tell me the reason.)

Q133 첫번째 소셜미디어에 대해 답변 부탁드립니다. (Please answer for the first social media.)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
정보 질 만족도 (Information Quality Satisfaction) (3)	<input type="radio"/>						
정보검색 만족도 (Information Searching Process Satisfaction) (4)	<input type="radio"/>						

Q134 두번째로 선호하시는 소셜미디어를 적어주세요 (Second preferred social media.)

Q135 이유를 적어주세요 (Please tell me the reason.)

Q136 두번째 소셜미디어에 대해 답변 부탁드립니다. (Please answer for the second social media.)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
정보 질 만족도 (Information Quality Satisfaction) (3)	<input type="radio"/>						
정보검색 만족도 (Information Searching Process Satisfaction) (4)	<input type="radio"/>						

Q137 세번째로 선호하시는 소셜미디어를 적어주세요 (Third preferred social media.)

Q138 이유를 적어주세요 (Please tell me the reason.)

Q139 세번째 소셜미디어에 대해 답변 부탁드립니다. (Please answer for the third social media.)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
정보 질 만족도 (Information Quality Satisfaction) (3)	<input type="radio"/>						
정보검색 만족도 (Information Searching Process Satisfaction) (4)	<input type="radio"/>						

Q140 만약 소셜미디어를 사용하지 않으시면, 어떤 곳에서 해당 정보를 찾으시는지 알려주세요.
(If you are not use social media, please tell me what kind of information source you used.)

End of Block: Transportation

Start of Block: Employment

Q145 취업 정보 (예: 직장 정보, 직장 위치, 취업요건, 업무 범위/책임, 회사 정보, 근무 환경 등) 관련 소셜미디어 사용에 관한 질문입니다. 상위 3 개의 소셜미디어를 적어주시고, 없으시면 맨 밑에 질문에만 답변해주시고 다음 항목으로 넘어가 주세요.

(Questions for Employment information (e.g., job information, job location, job qualification, responsibility, company information, work environment). Please write top three preferred social media. If you don't have any, please answer the last question and then move to next section.)

Q141 가장 많이 선호하시는 소셜미디어를 적어주세요 (First preferred social media.)

Q142 이유를 적어주세요 (Please tell me the reason.)

Q143 첫번째 소셜미디어에 대해 답변 부탁드립니다. (Please answer for the first social media.)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
정보 질 만족도 (Information Quality Satisfaction) (3)	<input type="radio"/>						
정보검색 만족도 (Information Searching Process Satisfaction) (4)	<input type="radio"/>						

Q144 두번째로 선호하시는 소셜미디어를 적어주세요 (Second preferred social media.)

Q145 이유를 적어주세요 (Please tell me the reason.)

Q146 두번째 소셜미디어에 대해 답변 부탁드립니다. (Please answer for the second social media.)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
정보 질 만족도 (Information Quality Satisfaction) (3)	<input type="radio"/>						
정보검색 만족도 (Information Searching Process Satisfaction) (4)	<input type="radio"/>						

Q147 세번째로 선호하시는 소셜미디어를 적어주세요 (Third preferred social media.)

Q148 이유를 적어주세요 (Please tell me the reason.)

Q149 세번째 소셜미디어에 대해 답변 부탁드립니다. (Please answer for the third social media.)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
정보 질 만족도 (Information Quality Satisfaction) (3)	<input type="radio"/>						
정보검색 만족도 (Information Searching Process Satisfaction) (4)	<input type="radio"/>						

Q150 만약 소셜미디어를 사용하지 않으시면, 어떤 곳에서 해당 정보를 찾으시는지 알려주세요.
(If you are not use social media, please tell me what kind of information source you used.)

End of Block: Employment

Start of Block: Other1

Q153 위에 답변한 정보 외에도 다른 것 (예: 식당/식료품, 여행, 휴가, 쇼핑 등)을 찾으시는 것이 있으십니까? 있으시면 해당 정보를 아래에 기입해 주시고, 없으시면 빈 칸으로 남기고 넘겨주시면 됩니다. 상위 3 개의 소셜미디어를 적어주세요. 만약 사용하지는 소셜미디어가 없으시면, 맨 마지막 질문에 답변해 주시고 넘어가 주세요.

(Any other information needs do you have (e.g., food, traveling, vacation, shopping)? If yes, please write your information needs in the blank box. If not, please leave the blank and click the next button. If you use social media, please write top three preferred social media. If you don't have any, please answer the last question and then move to next section.)

Q151 이 외에도 또 다른 정보를 소셜미디어에서 찾으십니까? (Do you search another information on the social meida?)

Yes (1)

No (2)

Display This Question:

If 이 외에도 또 다른 정보를 소셜미디어에서 찾으십니까? (Do you search another information on the social meida?) = Yes

Q152 어떤 정보를 검색하십니까? (What kind of information are you searching?)

Display This Question:

If 이 외에도 또 다른 정보를 소셜미디어에서 찾으십니까? (Do you search another information on the social meida?) = Yes

Q153 가장 많이 선호하시는 소셜미디어를 적어주세요 (First preferred social media.)

Display This Question:

If 이 외에도 또 다른 정보를 소셜미디어에서 찾으십니까? (Do you search another information on the social meida?) = Yes

Q154 이유를 적어주세요 (Please tell me the reason.)

Display This Question:

If 이 외에도 또 다른 정보를 소셜미디어에서 찾으십니까? (Do you search another information on the social meida?) = Yes

Q155 첫번째 소셜미디어에 대해 답변 부탁드립니다. (Please answer for the first social media.)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
정보 질 만족도 (Information Quality Satisfaction) (3)	<input type="radio"/>						
정보검색 만족도 (Information Searching Process Satisfaction) (4)	<input type="radio"/>						

Display This Question:

If 이 외에도 또 다른 정보를 소셜미디어에서 찾으십니까? (Do you search another information on the social meida?) = Yes

Q156 두번째로 선호하시는 소셜미디어를 적어주세요 (Second preferred social media.)

Display This Question:

If 이 외에도 또 다른 정보를 소셜미디어에서 찾으십니까? (Do you search another information on the social meida?) = Yes

Q157 이유를 적어주세요 (Please tell me the reason.)

Display This Question:

If 이 외에도 또 다른 정보를 소셜미디어에서 찾으십니까? (Do you search another information on the social meida?) = Yes

Q158 두번째 소셜미디어에 대해 답변 부탁드립니다. (Please answer for the second social media.)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
정보 질 만족도 (Information Quality Satisfaction) (3)	<input type="radio"/>						
정보검색 만족도 (Information Searching Process Satisfaction) (4)	<input type="radio"/>						

Display This Question:

If 이 외에도 또 다른 정보를 소셜미디어에서 찾으십니까? (Do you search another information on the social meida?) = Yes

Q159 세번째로 선호하시는 소셜미디어를 적어주세요 (Third preferred social media.)

Display This Question:

If 이 외에도 또 다른 정보를 소셜미디어에서 찾으십니까? (Do you search another information on the social meida?) = Yes

Q160 이유를 적어주세요 (Please tell me the reason.)

Display This Question:

If 이 외에도 또 다른 정보를 소셜미디어에서 찾으십니까? (Do you search another information on the social meida?) = Yes

Q161 세번째 소셜미디어에 대해 답변 부탁드립니다. (Please answer for the third social media.)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
정보 질 만족도 (Information Quality Satisfaction) (3)	<input type="radio"/>						
정보검색 만족도 (Information Searching Process Satisfaction) (4)	<input type="radio"/>						

Display This Question:

If 이 외에도 또 다른 정보를 소셜미디어에서 찾으십니까? (Do you search another information on the social meida?) = Yes

Q162 만약 소셜미디어를 사용하지 않으시면, 어떤 곳에서 해당 정보를 찾으시는지 알려주세요.
(If you are not use social media, please tell me what kind of information source you used.)

Display This Question:

If 이 외에도 또 다른 정보를 소셜미디어에서 찾으십니까? (Do you search another information on the social meida?) = Yes

Q163 이 외에도 또 다른 정보를 소셜미디어에서 찾으십니까? (Do you search another information on the social meida?)

- Yes (1)
- No (2)

Skip To: End of Block If 이 외에도 또 다른 정보를 소셜미디어에서 찾으십니까? (Do you search another information on the social meida?) = No

End of Block: Other1

Start of Block: Other 2

Display This Question:

If 이 외에도 또 다른 정보를 소셜미디어에서 찾으십니까? (Do you search another information on the social meida?) = Yes

Q162 위에 답변한 정보 외에도 다른 것 (예: 식당/식료품, 여행, 휴가, 쇼핑 등)을 찾으시는 것이 있으십니까? 있으시면 해당 정보를 아래에 기입해 주시고, 없으시면 빈 칸으로 남기고 넘겨주시면 됩니다. 상위 3 개의 소셜미디어를 적어주세요. 만약 사용하시는 소셜미디어가 없으시면, 맨 마지막 질문에 답변해 주시고 넘어가 주세요.

(Any other information needs do you have (e.g., food, traveling, vacation, shopping)? If yes, please write your information needs in the blank box. If not, please levae the blank and click the next button. If you use social media, please write top three preferred social media. If you don't have any, please answer the last question and then move to next section.)

Display This Question:

If 이 외에도 또 다른 정보를 소셜미디어에서 찾으십니까? (Do you search another information on the social meida?) = Yes

Q164 어떤 정보를 검색하십니까? (What kind of information are you searching?)

Display This Question:

If 이 외에도 또 다른 정보를 소셜미디어에서 찾으십니까? (Do you search another information on the social meida?) = Yes

Q165 가장 많이 선호하시는 소셜미디어를 적어주세요 (First preferred social media.)

Display This Question:

If 이 외에도 또 다른 정보를 소셜미디어에서 찾으십니까? (Do you search another information on the social meida?) = Yes

Q166 이유를 적어주세요 (Please tell me the reason.)

Display This Question:

If 이 외에도 또 다른 정보를 소셜미디어에서 찾으십니까? (Do you search another information on the social meida?) = Yes

Q167 첫번째 소셜미디어에 대해 답변 부탁드립니다. (Please answer for the first social media.)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
정보 질 만족도 (Information Quality Satisfaction) (3)	<input type="radio"/>						
정보검색 만족도 (Information Searching Process Satisfaction) (4)	<input type="radio"/>						

Display This Question:

If 이 외에도 또 다른 정보를 소셜미디어에서 찾으십니까? (Do you search another information on the social meida?) = Yes

Q168 두번째로 선호하시는 소셜미디어를 적어주세요 (Second preferred social media.)

Display This Question:

If 이 외에도 또 다른 정보를 소셜미디어에서 찾으십니까? (Do you search another information on the social meida?) = Yes

Q169 이유를 적어주세요 (Please tell me the reason.)

Display This Question:

If 이 외에도 또 다른 정보를 소셜미디어에서 찾으십니까? (Do you search another information on the social meida?) = Yes

Q170 두번째 소셜미디어에 대해 답변 부탁드립니다. (Please answer for the second social media.)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
정보 질 만족도 (Information Quality Satisfaction) (3)	<input type="radio"/>						
정보검색 만족도 (Information Searching Process Satisfaction) (4)	<input type="radio"/>						

Display This Question:

If 이 외에도 또 다른 정보를 소셜미디어에서 찾으십니까? (Do you search another information on the social meida?) = Yes

Q171 세번째로 선호하시는 소셜미디어를 적어주세요 (Third preferred social media.)

Display This Question:

If 이 외에도 또 다른 정보를 소셜미디어에서 찾으십니까? (Do you search another information on the social meida?) = Yes

Q172 이유를 적어주세요 (Please tell me the reason.)

Display This Question:

If 이 외에도 또 다른 정보를 소셜미디어에서 찾으십니까? (Do you search another information on the social meida?) = Yes

Q173 세번째 소셜미디어에 대해 답변 부탁드립니다. (Please answer for the third social media.)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
정보 질 만족도 (Information Quality Satisfaction) (3)	<input type="radio"/>						
정보검색 만족도 (Information Searching Process Satisfaction) (4)	<input type="radio"/>						

Display This Question:

If 이 외에도 또 다른 정보를 소셜미디어에서 찾으십니까? (Do you search another information on the social meida?) = Yes

Q174 만약 소셜미디어를 사용하지 않으시면, 어떤 곳에서 해당 정보를 찾으시는지 알려주세요.
(If you are not use social media, please tell me what kind of information source you used.)

Display This Question:

If 이 외에도 또 다른 정보를 소셜미디어에서 찾으십니까? (Do you search another information on the social meida?) = Yes

Q175 이 외에도 또 다른 정보를 소셜미디어에서 찾으십니까? (Do you search another information on the social meida?)

- Yes (1)
- No (2)

Skip To: End of Block If 이 외에도 또 다른 정보를 소셜미디어에서 찾으십니까? (Do you search another information on the social meida?) = No

End of Block: Other 2

Start of Block: Other 3

Display This Question:

If 이 외에도 또 다른 정보를 소셜미디어에서 찾으십니까? (Do you search another information on the social meida?) = Yes

Q172 위에 답변한 정보 외에도 다른 것 (예: 식당/식료품, 여행, 휴가, 쇼핑 등)을 찾으시는 것이 있으십니까? 있으시면 해당 정보를 아래에 기입해 주시고, 없으시면 빈 칸으로 남기고 넘겨주시면 됩니다. 상위 3 개의 소셜미디어를 적어주세요. 만약 사용하시는 소셜미디어가 없으시면, 맨 마지막 질문에 답변해 주시고 넘어가 주세요.

(Any other information needs do you have (e.g., food, traveling, vacation, shopping)? If yes, please write your information needs in the blank box. If not, please leave the blank and click the next button. If you use social media, please write top three preferred social media. If you don't have any, please answer the last question and then move to next section.)

Display This Question:

If 이 외에도 또 다른 정보를 소셜미디어에서 찾으십니까? (Do you search another information on the social meida?) = Yes

Q176 어떤 정보를 검색하십니까? (What kind of information are you searching?)

Display This Question:

If 이 외에도 또 다른 정보를 소셜미디어에서 찾으십니까? (Do you search another information on the social meida?) = Yes

Q177 가장 많이 선호하시는 소셜미디어를 적어주세요 (First preferred social media.)

Display This Question:

If 이 외에도 또 다른 정보를 소셜미디어에서 찾으십니까? (Do you search another information on the social meida?) = Yes

Q178 이유를 적어주세요 (Please tell me the reason.)

Display This Question:

If 이 외에도 또 다른 정보를 소셜미디어에서 찾으십니까? (Do you search another information on the social meida?) = Yes

Q179 첫번째 소셜미디어에 대해 답변 부탁드립니다. (Please answer for the first social media.)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
정보 질 만족도 (Information Quality Satisfaction) (3)	<input type="radio"/>						
정보검색 만족도 (Information Searching Process Satisfaction) (4)	<input type="radio"/>						

Display This Question:

If 이 외에도 또 다른 정보를 소셜미디어에서 찾으십니까? (Do you search another information on the social media?) = Yes

Q180 두번째로 선호하시는 소셜미디어를 적어주세요 (Second preferred social media.)

Display This Question:

If 이 외에도 또 다른 정보를 소셜미디어에서 찾으십니까? (Do you search another information on the social media?) = Yes

Q181 이유를 적어주세요 (Please tell me the reason.)

Display This Question:

If 이 외에도 또 다른 정보를 소셜미디어에서 찾으십니까? (Do you search another information on the social media?) = Yes

Q182 두번째 소셜미디어에 대해 답변 부탁드립니다. (Please answer for the second social media.)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
정보 질 만족도 (Information Quality Satisfaction) (3)	<input type="radio"/>						
정보검색 만족도 (Information Searching Process Satisfaction) (4)	<input type="radio"/>						

Display This Question:

If 이 외에도 또 다른 정보를 소셜미디어에서 찾으십니까? (Do you search another information on the social meida?) = Yes

Q183 세번째로 선호하시는 소셜미디어를 적어주세요 (Third preferred social media.)

Display This Question:

If 이 외에도 또 다른 정보를 소셜미디어에서 찾으십니까? (Do you search another information on the social meida?) = Yes

Q184 이유를 적어주세요 (Please tell me the reason.)

Display This Question:

If 이 외에도 또 다른 정보를 소셜미디어에서 찾으십니까? (Do you search another information on the social meida?) = Yes

Q185 세번째 소셜미디어에 대해 답변 부탁드립니다. (Please answer for the third social media.)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
사용빈도 (Frequency) (1)	<input type="radio"/>						
사용편의성 (Ease of Use) (2)	<input type="radio"/>						
정보 질 만족도 (Information Quality Satisfaction) (3)	<input type="radio"/>						
정보검색 만족도 (Information Searching Process Satisfaction) (4)	<input type="radio"/>						

Display This Question:

If 이 외에도 또 다른 정보를 소셜미디어에서 찾으십니까? (Do you search another information on the social media?) = Yes

Q186 만약 소셜미디어를 사용하지 않으시면, 어떤 곳에서 해당 정보를 찾으시는지 알려주세요.
(If you are not use social media, please tell me what kind of information source you used.)

End of Block: Other 3

Start of Block: Recruiting

Q187 코로나 19 기간 동안 소셜 미디어를 정보에 사용하기 위해 변경된 사항이 있습니까?
Did you make any changes to use social media for information during Covid 19?

- 네(Yes) (1)
- 아니오(No) (2)

Display This Question:

If 코로나19 기간 동안 소셜 미디어를 정보에 사용하기 위해 변경된 사항이 있습니까? Did you make any changes to use social media for i... = 네(Yes)

Q188 있다면 바뀐 것은 무엇입니까? (If yes, what are the changes?)

Q189 다음 질문은 일지와 인터뷰에 참여할 것인지 묻는 것입니다. 당신이 참여할 수 있는지 알려주세요.

"예"를 선택하면 참여자로 선택 시 일지 및 인터뷰 정보와 관련된 이메일을 받을 수 있습니다.

(The following question below asks if you will participate in the diary and interview. Please let me know if you willing to participate. If you select "yes," you may receive an email regarding diary and interview information when you are chosen.)

네, 참여가 가능합니다. (Yes, I want to participate.) (1)

아니오 (No) (2)

Q190 이메일 주소를 적어주세요 (해당 이메일로 5불 기프트카드가 전달됩니다). (Please provide your email address. You will receive 5\$ giftcard via the email.)

Q228 지금까지 설문조사에 감사드립니다. 아래 --> 버튼을 클릭하시면 설문조사가 마무리 됩니다.

감사합니다.

(Thank you for the answer so far. Please click --> button to complete the questionnaire. Thank you for your participation!)

End of Block: Recruiting

Appendix E. Diary

Subject Number:

Please fill in the blank in the table. During the two weeks, please record as many as possible.

- Date/time: MM/DD, HH/MM PM/AM (e.g., 06/02, 04:53 PM).
- Type of information seeking: Please use the type of information I provided. If you cannot find a right one, feel free to write down your information need.
- Purpose of information seeking: Feel free to write down your purpose.
- Types of social media: Please use the type of social media I provided. If you cannot find a right one, feel free to write down social media you used.
- How do you use social media? : Feel free to write down your reason.
- Usage Time: Minutes. (e.g., 17 min.)
- Did you find information you wanted? Yes/No.
- How do you feel? Comments: And then you can freely provide your comments.

After finishing, please click the save button.

After two weeks, please send it back to me (taehee@uwm.edu).

Date/Time	Type of information seeking	Purpose of information seeking	Types of social media	Reason to use social media	How do you use social media?	Usage Time (min)	Did you find information you wanted?	Is it expected or unexpected? (Yes/No)	How do you feel? Comments?

번호: (연락받으셨을 때 받으신 번호를 기재해 주세요)

아래 사항을 다음 2 주 동안 최대한 많이 기재해주시길 부탁드립니다.

- 날짜/시간
 - 9월 29일 오후 3시
 - 9월 30일 오후 3시
 - 10월 6일 오후 2시
 - 10월 9일 오후 3시
 - 10월 10일 오후 8시
 - 10월 12일 오전 11시
 - 10월 12일 오후 3시
- 검색/탐색한 정보 종류
 - 여행 정보, 생활 정보, 부동산 정보
 - 해당 정보를 찾은 이유
 - 여행을 앞두고 날씨(단풍 진행 정도)와 주요 관광지 정보 검색
 - 생활에서 발생한 문제를 해결하기 위해
- 소셜미디어 종류
 - 인스타그램, 네이버 블로그, 유튜브
- 해당 소셜미디어를 사용한 이유
 - 인스타그램 : 최근에 업로드 된 사진을 통해 현재 단풍 진행 상태와 사진찍기 좋은 포인트 등을 알 수 있어서
 - 네이버 블로그 : 여행기록을 꼼꼼히 작성한 사람들이 많아서 여행 경로나 이동 수단 등의 정보를 검색하기 쉬워서
 - 유튜브 : 영상으로 보아야 더 효과적인 정보를 습득하기 위해
- 그 소셜미디어를 어떻게 사용하셨나요?
 - 태그 검색 사용, 검색 후 콘텐츠 열람 혹은 시청
- 사용시간
 - 매회 10~20분 가량
- 원하시는 정보를 찾으셨나요?
 - 예
- 원하시는 정보는 찾았을 때 예상한대로 찾으신 건가요? 아니면 그냥 갑자기 발견하셨나요?
 - 예상대로 발견
- 소감 및 기타
 - 인스타그램은 트렌드 파악에는 용이하나 정보 검색에 적합한 도구는 아니라고 생각한다
 - 네이버 블로그는 매우 도움이 되지만 여행 정보는 2년간 업데이트 되지 않아 최신 정보를 찾기 어려웠다
 - 유튜브는 일반적으로 정보 검색에 유용하다고 생각하지는 않지만, 보고 따라하면서 해결해야 하는 종류의 문제에 대해서는 효과적인 매체인 것 같다

기재하신 후에는 꼭 저장 버튼을 눌러주세요.

2 주 후에 저에게 꼭 보내주시길 부탁드립니다. (taheec@uwm.edu)

예

날짜/ 시간	정보종 류	해당 정보를 찾은 이유	소셜 미디 어 종류	해당 소셜미 디어 사용 이유	어떻게 사용하셨 나요?	사용 시간 (분)	원하시는 정보를 찾았음	예상한데 로 찾았습니 까?	소감, 코멘트
07- 10 오후 10:30									

다음 장부터 기재 부탁드립니다.

Appendix F. Interview Questions

Introduction and procedures (for the researcher)

1. Before the Interview
 - a. Schedule interview date and location.
 - b. Online
 - i. Open Zoom or Microsoft Team software
 - ii. Check audio and video system
 - c. In-person
 - i. Preparing interview sheets and recording device.
 - ii. Visit the location where the participant wants
2. Meet study participant
 - a. Thank the participant for his/her time and willingness to participate in this research.
 - i. Example comments: Thank you again for your willingness to participate in our digital library study. My name is Tae Hee Lee and I am the researcher for this study.
 - b. Introduce the goal of this study, the procedure for the interview session, and how the researcher will maintain the research confidentiality.
 - i. Check consent form.
 - a) Example comments: I previously sent you a consent form outlining the procedures for the study. Did you have a chance to review it?
 - ii. Explain how long this interview will spend time.
 - a) Example comments: The interview will take about an hours to complete.
 - iii. Explain the structure of the interview.
 - a) Example comments: In the interview, there are six categories and total 24 questions.
3. When complete
 - a. Notice the finish.
 - i. Example comments: I want to thank you again for participating in this study. We are now finished. I will stop the recording here.
 - b. Conclusion and close Video or recording device.
 - i. Example comments: Thanks again participating this study. Your feedback is very helpful and will help me to research Korean immigrants' information seeking in social media environment.
 - c. Check recorded file.

Experience of solving information needs in everyday life in the United States: Sample questions:

1. How did you find the information you needed in the United States?
2. Were there any changes needed to search the information process compared to when you were in your home country?
3. When did you feel so hard to find information in the United States?
4. What is the most difficulty or hinderance to find information in the United States?

Identification of Information needs:

Sample questions:

1. What kind of information do you need in everyday life in the United States?
2. Can you list the top five information needs in everyday life in the United States?
3. What are your reasons for selecting these top five information needs?
4. How did you get information about these top five information needs?

Use of social media for information seeking:

Sample questions:

1. What kind of information do you like to search for in the social media? Why?
2. What kind of social media do you usually use for finding information?
3. How do you use social media for finding information in the United States?
4. Do you think you are able to obtain an enough information from social media to live in the United States? Why? Why not?

Selection of social media for solving information needs:

Sample questions:

1. What types of social media do you mostly use when you are searching for information (e.g., shopping, education information, job, health, monitoring information) in the United States?
2. Do you change the way you use social media in the United States to satisfying your information needs compared with the way you use social media in South Korea?
3. Are you going to use the same social media to satisfy all of your informational needs or use different social media?
4. Why do you choose the specific type of social media for the type of information needs?
5. Are you satisfied when you search for the information in social media? Why?
6. Do you think that this social media fulfilled your needs? Or not? Please explain why

Challenges of use of social media:

Sample questions:

1. Have you found any problems during your information searching using social media in the United States?

2. What makes it difficult for you to use social media?
3. What are the most difficult problems you have found when you tried to search information through social media in the United States?

Desire/Expectation:

Sample questions:

1. Please tell me more about the characteristic or functions of the social media you prefer or desire.
2. What do you think the way to improve searching information through existing social media for everyday life in the United States?
3. Any other comment

Question in Korean language

미국의 일상생활에서 필요한 정보 해결 경험: 샘플 질문:

1. 미국에서 생활하실 때 필요한 정보를 주로 어디서 찾으셨나요?
2. 한국에 있을 때와 비교해서 정보를 검색하는데 사용하는 방법이 바뀐 것이 있나요?
3. 필요한 정보를 미국에서 찾을 때 언제 어느 순간이 가장 힘들었나요?
4. 미국에서 정보를 검색하고 찾는데 있어서 가장 어렵거나 방해가 되는 것은 무엇이라고 생각하시나요?
5. 코로나19 이후 소셜미디어 이용에 변화가 있습니까? 있다면 왜 그런가요?

정보 요구 사항 확인 (Information needs)

1. 미국에서 사는데 있어서 어떤 종류의 정보가 필요하다고 생각하십니까?
2. 가장 필요한 정보 5가지를 나열해 주실 수 있나요?
3. 5가지를 선택한 이유를 말씀해 주실 수 있나요?
4. 그럼 5가지 정보들을 주로 어디서 어떻게 얻으셨습니까?
5. 다이어리를 보면 예상치 못한 정보를 소셜미디어 사용중에 찾았다고 말씀하셨습니다. 어떻게 찾으셨는지 말씀해 주시겠어요?

소셜미디어에서 정보찾기

1. 소셜미디어에서 어떤 정보를 주로 찾으시나요? 이유를 말씀해 주시겠어요?
2. 한국에서 소셜미디어 사용과 비교해서 미국에서 소셜미디어 사용하시는 방법이나 찾으시는 정보가 바뀐 것이 있나요?
3. 바뀌신 것이 있다면 어떻게 바뀌셨는지 이야기해주세요.
4. 정보 유형에 따라 소셜미디어를 달리 사용하시나요?

다이어리랑 설문조사 보고 질문하기

1. 설문조사를 보면 쇼핑이나 여행 정보 찾으신 경우가 많으신데, 이유를 설명해 주실 수 있나요?
2. 주로 어떻게 찾으신 건가요?
3. 다른 것들 보다 쇼핑이나, 식당, 여행 정보가 더 많으신데 특별한 이유가 있으신지요?
4. 그런 정보들을 찾는데 있어서 소셜미디어가 어떤 장점이 있으셨는지 이야기 해주실 수 있나요?

5. 설문조사에 보면 소셜미디어에서 이런 정보를 찾으신다고 하셨습니다. 이유를 설명해 주실 수 있나요?
6. 해당 소셜미디어를 사용하시는 이유를 설명해 주시겠어요?
7. (예상치 못한 정보를 찾았다고 했을 경우) 어떤 상황에서 그 예상치 못한 정보를 발견하신 건가요? 그 정보가 만족스러우셨나요?
8. 해당 소셜 미디어에서 정보를 검색하실 때 만족하셨는지 안하셨는지와 그 이유를 설명해 주세요.

소셜미디어 사용 전반

1. 미국에서 살면서 소셜미디어에서 충분한 정보를 찾으실 수 있다고 생각하시나요?
2. 미국에서 소셜미디어를 사용하는데 있어서 어려움이나 힘든 점이 있으셨나요?
3. 미국에서 소셜미디어를 사용해서 정보를 검색하려고 할 때 가장 어려운 점은 무엇입니까?

코멘트

1. 당신이 선호하거나 원하는 소셜미디어의 특징이나 기능이 있다면 이야기 해주실 수 있나요?
2. 미국에서 생활하면서 소셜미디어를 통해 정보를 검색할 때, 어떤 것이 개선되면 더 유용하게 사용할 수 있는지 이야기 해 주실 수 있나요?
3. 제가 드린 질문 이외에 다른 하실 말씀이 있으시면 해주세요.

CURRICULUM VITAE

Tae Hee Lee

EDUCATION

- University of Wisconsin-Milwaukee** Milwaukee, WI
Ph.D. Candidate, School of Information Studies Sep. 2014-Jun. 2023
- Research Area: Digital Library, Information Security, Information Seeking, User Experience
 - Dissertation title: “Information needs of Korean immigrants in the United States: Selection and use of social media” (Major professor: Professor Iris Xie)
- Syracuse University** Syracuse, NY
M.S., Telecommunication and Network Management, Dec. 2008
iSchool
M.S., Information Management, iSchool May. 2007
- Specialty: Database Management, Project Management
- Sung Kyun Kwan University** Seoul, South Korea
B.S., Library and Information Science Feb. 2004

RESEARCH PROJECT EXPERIENCE

- University of Wisconsin-Milwaukee** Milwaukee, WI
Research Assistant, School of Information Studies Jul. 2020-Jun. 2022
- Project Title: Universal Accessibility and Usability of Digital Library (DL) in the Mobile Environment: Developing guidelines for blind and visually impaired (BVI) users project
 - UW Milwaukee Discovery and Innovation Grant, \$106,566
 - Designed instruments for data collection, collected and analyzed data, and wrote papers
- University of Wisconsin-Milwaukee** Milwaukee, WI
Research Assistant, School of Information Studies Jul. 2016 ~ Jun. 2019
- Project Title: Creating DL design guidelines on accessibility, usability, and utility for BVI users project
 - Institute of Museum and Library Service (IMLS) leadership grant, \$495,600
 - Recruited participants, collected and analyzed data, wrote papers
 - Created guidelines (<http://sites.uwm.edu/guidelines/>)
- University of Wisconsin-Milwaukee** Milwaukee, WI
Research Assistant, School of Information Studies Feb. 2016-Jun. 2017
- Project Title: Universal Accessibility of Digital Libraries: Design of help mechanisms for blind users

- OCLC/ALISE grant, \$15,000
- Collected and analyzed data, wrote papers

TEACHING EXPERIENCE

- | | |
|--|--|
| <p>University of Wisconsin-Milwaukee
 <i>Adjunct Lecturer</i>, School of Information Studies (Fall 2022, Spring 2023)</p> <ul style="list-style-type: none"> • INFOST325-001 (In-person) – Information Security I • INFOST325-201 (Online) – Information Security I | <p>Milwaukee, WI
 Aug. 2022-</p> |
| <p>University of Wisconsin-Milwaukee
 <i>Instructor</i>, School of Information Studies</p> <ul style="list-style-type: none"> • INFOST385-001 (In-person) – Information Security II • INFOST385-201 (Online) – Information Security II | <p>Milwaukee, WI
 Jan. 2020-May.
 2020</p> |
| <p>University of Wisconsin-Milwaukee
 <i>Instructor</i>, School of Information Studies</p> <ul style="list-style-type: none"> • INFOST385-001 (In-person) – Information Security II • INFOST385-201 (Online) – Information Security II | <p>Milwaukee, WI
 Aug.-Dec. 2019</p> |
| <p>University of Wisconsin-Milwaukee
 <i>Teaching Assistant</i>, School of Information Studies</p> <ul style="list-style-type: none"> • INFOST490 Senior Capstone, IT project Management (Spring 2019) • INFOST682 Digital libraries (Spring 2018) | <p>Milwaukee, WI
 2018, 2019</p> |
| <p>University of Wisconsin-Milwaukee
 <i>Guest Lecturer</i>, School of Information Studies</p> <ul style="list-style-type: none"> • INFOST325-001 (In-Person) – Information Security I | <p>Milwaukee, WI
 Mar. 2018</p> |

PROFESSIONAL EXPERIENCE

- | | |
|---|--|
| <p>Ocean Monster
 <i>Consultant (Freelancer)</i></p> <ul style="list-style-type: none"> • Evaluate web accessibility, efficiency, security, and usability of websites of Korea Meteorological Administration (KMA) including sub-organizations • Document results and provide recommendations for identified problems • Benchmark foreign government or commercial weather online service | <p>Seoul, South Korea
 Dec. 2020-Present</p> |
| <p>Twowin Work
 <i>Consultant (Freelancer)</i></p> <ul style="list-style-type: none"> • Proposed interface design of mobile weather application of D-One Labs based on the benchmark of popular weather service websites | <p>Seoul, South Korea
 Jun. 2020-Nov. 2020</p> |
| <p>Samsung Fire and Marine Insurance
 <i>Manager</i>, Department of Information Technology Support</p> | <p>Seoul, South Korea
 Apr. 2009-Apr. 2014</p> |

- Led the project team of transforming network systems and cybersecurity
- Managed network operation team
- Participated as a project assistant for developing web application of I.T. Asset Management System
- Conducted user experience of network access, end-user devices, and websites
- Managed global network remodeling project team
- Planned network systems operation and security procedures

Salvation Army of Syracuse Area

Intern, Department of Technology Support

Syracuse, NY

Aug. 2006-Dec. 2006

- Remodeled Syracuse YMCA's booking room database system

National Computerization Agency (NCA)

Junior Researcher (Freelancer)

Seoul, South Korea

Mar. 2004-Dec. 2004

- Proposed Korean UDDI classification system based on a topic map

PUBLICATIONS

Research in progress

Xie, I., Wang, S., Lee, H., Lee, T (Preparing to submit) Creating Accessibility and Usability Digital Library Guidelines to Support Blind and Visually Impaired Users: Qualitative and Quantitative Methods applied. *Qualitative and Quantitative Methods in Libraries*.

Xie, I., Wang, S., Lee, T., Lee, H. (preparing to submit). Blind and visually impaired users' help-seeking situations in digital libraries: Comparison between mobile and desktop environments. *International Journal of Human Computer Interaction*.

Journal Publications (Peer-reviewed)

Lee, T., Jung, M., Kim, Y. (Accepted). Predicting psychologists' academic reciprocity and data sharing intention with the theory of collective action. *The Electronic Library*.

Xie, I., Lee, T., Wang, S., Lee, H., Babu, R. (Accepted). Comparison of Accessibility and Usability of Digital Libraries in Mobile Platforms: From blind and visually impaired users' perspective. *Information Research*.

Lee, T., Choi, I. (Accepted). Multilingual Supports in Digital Environment: Explorative Study of U.S. Public Library Websites and Online Catalog. *Public Library Quarterly*.

Xie, I., Babu, R., Wang, S., Lee, T., Lee, H. (2022). Assessment of Digital Library Design Guidelines Supporting Blind and Visual Impaired Users: Comparison of perspectives from users, scholars, and developers. *The Electronic Library*.

Xie, I., Babu, R., Lee, T., Wang, S., Lee, H. (2021). Coping tactics applied by blind and visually impaired users: Responding to help-seeking situations in the digital library environment. *Information Processing and Management*, 58(5), 102612.

Xie, I., Babu, R., Lee, H., Wang, S., Lee, T. (2021). Orientation Tactics and Associated Factors in the Digital Library Environment: Comparison between blind and sighted users. *Journal of Association for Information Science and Technology*, 72(8), 995-1010.

Xie, I., Babu, R., Lee, T., Castillo, M., You, S., Hanlon, A. (2020). Enhancing usability of digital libraries: Designing help features to support blind and visually impaired users. *Information Processing and Management*, 57(3), 102110.

Oh, S. G., Lee, E. C., Park, O., Yi, M., Lee, T., Kim, J., Shin, S. (2004). Developing a Korean UDDI Classification System for consistent Registration and Management of Web Service. *National Computerization Association*, South Korea.

Conference Proceedings and presentations (Peer-reviewed)

Xie, I., Babu, R., Wang, S., Lee, T., Lee, H. (2021). Importance of digital library design guidelines to support blind and visually impaired users: Perceptions of key stakeholders. *In Proceedings of iConference 2021*. Beijing, China.

Xie, I., Babu, R., Lee, T. H., Wang, S., & Lee, H. S. (2020). Tactics Applied by Blind and Sighted Users: Initial Exploration of a Digital Library. *In Proceedings of the ACM/IEEE Joint Conference on Digital Libraries in 2020* (pp. 445-446).

Lee, T., Choi, I. (2019). Multilingual Access Support Evaluation Guideline in the Website of Public Library. *In Proceedings of the 2019 iConference*, College Park, MD.

Xie, I., Babu, R., Castillo, M., Lee, T., & You, S. (2018). Developing Digital Library Design Guidelines to Support Blind Users. *In Proceedings of ASSET 2018*. Galway, Ireland: ACM.

Lee, T., Park, H., Lee, S., Choi, I. (2017). Practice of Multilingual Supports: A pilot study of top 25 circulation public libraries in the ALA. *In Proceeding of the 2017 iConference*. Wuhan, China.

Lee, T. (2016). Social media in the information seeking behavior of married Korean immigrant men. *In Proceedings of Midwest United States Association for Information Systems 2016*. Milwaukee, WI.

Lee, T. (2016). Adoption factors and problems of mobile library services in the academic library for graduate students: case study of University of Wisconsin Milwaukee library. *In Proceedings of iConference 2016*. Philadelphia, PA.

Presentations

Lee, T. (2021). Evaluation of online database selection criteria in electronic scholarly online database: A case study of online databases for business disciplinary in UW-Milwaukee. *2021 Annual Conference of the Association of Library & Information Science Educators (ALISE)*, Virtual.

Lee, T. (2020). Website Security in Public libraries: The case study of security applications in Wisconsin public libraries. *2020 Annual Conference of the Association of Library & Information Science Educators (ALISE)*, October 19 – 23, Virtual.

Xie, I., Babu, R., Castillo, M., Lee, TH., You, S. & Hanlon, A. (2017). Designing Help Features to Support Blind Users' Interaction with Digital Libraries. *2017 Annual Conference of the Association of Library & Information Science Educators (ALISE)*, January 17 – 20, Atlanta, GA.

Lee, T., Park, H., Lee, S., Choi, I. (2017). Public libraries' multilingual supports: A preliminary framework in 19 public libraries in United States. *2017 Annual Conference of the Association of Library & Information Science Educators (ALISE)*, January 17 – 20, Atlanta, GA.

Beak, J., Choi, I., & Lee, T. (2015). "Research Methods in KO Domain: Pilot Study." Presented at *3rd Milwaukee Conference on Ethics on Knowledge Organization*, May 2015, Milwaukee, WI.

GRANT PROPOSAL EXPERIENCE

"Universal Accessibility and Usability of Digital Libraries in the Mobile Environment: Developing design guidelines to support blind and visually impaired users." Iris Xie (PI) and Wonchan Choi (Co-PI). IMLS Leadership grant (Applied research category) for 2023–2025, \$695,631.00.

- Funded by Institute of Museum and Library Services (IMLS)
- Role: Research Assistant (Wrote literature review, developed data collection methods and analysis, planned draft schedule)

Grant: University of Wisconsin Milwaukee Discovery and Innovation Grant for 2020-2022, \$106,566

"Universal Accessibility and Usability of Digital Library (DL) in the Mobile Environment: Developing guidelines for blind and visually impaired (BVI) users", Iris Xie (PI) UWM Discovery and Innovation Grant (DIG) for 2020-2022, \$106,566.00.

- Funded by UWM Discovery and Innovation Grant
- Role: Research Assistant (Wrote literature review, developed data collection methods and analysis, planned draft schedule)

AWARDS & HONORS & SCHOLARSHIPS

Dissertation Completion Support Program (Fall 2022)

- \$1,500, Graduate School, University of Wisconsin Milwaukee

iConference 2023 Doctoral Colloquium (2023)

Doctoral Research Grant Opportunity (Fall 2022)

- \$500, School of Information Studies, University of Wisconsin Milwaukee

Asian Faculty and Student Association Award (Spring 2020)

- \$500, University of Wisconsin Milwaukee

Diversity Travel Award of ALISE 2020 conference (2020)

- The Association for Library and Information Science Education (ALISE)

Graduate Student Excellence Fellowship (Fall 2019)

- \$2,000, Graduate School, University of Wisconsin Milwaukee (Fall 2019)

Chancellor's Student Award (Fall, 2014, Spring 2015, Fall 2016, Fall 2017, Fall 2018, Fall 2019)

- \$1,000 each semester, University of Wisconsin Milwaukee

Member of Phi Beta Delta (Spring 2006)

- Honor Society for International Scholars at Syracuse University

Excellent Student Scholarship (Fall 2002, Spring 2003, Fall 2003)

- \$3,000 each semester, Sung Kyun Kwan University

ORGANIZATION SERVICES

Academic related

Member, Diversity & Equity Committee, School of Information Studies, Milwaukee, WI (Sep. 2022-)

Language Editor, Open Information Science (Journal) (Sep. 2016-Aug. 2018)

Doctoral Student Officer, Student Organization, School of Information Studies, Milwaukee, WI (2016)

Chair of Korean Student's Association of IST in Syracuse University, Syracuse, NY (2006)

Professional experience related

Member of Employee Committee, Samsung Fire and Marine Insurance, Seoul, South Korea (2010-2013)

Community related

Volunteer principal of Children's Ministry at Life Creek Church, Oak Creek, WI (2020-present)

Volunteer teacher of Children's Ministry at Life Creek Church, Oak Creek, WI (2015-2020)

Volunteer Webmaster of Life Creek Church, Oak Creek, WI (2014-present)

Volunteer teacher of Korean language school at Milwaukee, Oak Creek, WI (Fall 2019)

Ministry Teacher for high school students, Sa Rang Church, Seoul, South Korea (2009-2014)

Military related

Sergeant, Strategy Department, The Tiger Division, Republic of Korea Army, South Korea (1998-2002)

MEMBERSHIPS & CERTIFICATIONS

Member of American Library Association (ALA, ID No. 2084748)

Member of Association for Library and Information Science Education (ALISE)

Associate Financial Planner Korea Certification (2013)

Librarian license of South Korea (2005)