The Impact of Social Media on the Social Lives of People with Visual Impairment (Facebook Groups as a Case Study)

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The Impact of Social Media on the Social Lives of People with Visual Impairment  
(Facebook Groups as a Case Study)

A dissertation submitted in partial fulfillment  
of the requirements for the degree of  
Master of Arts in Journalism

by

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Bachelor of Arts in English, 2016

May 2020  
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This thesis is approved for recommendation to the Graduate Council.

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Abstract

This present research seeks to provide a more comprehensive understanding of why people with visual impairment use social media. I investigate this question using uses and gratification (U&G) Theory, which was developed by Katz, Blumler, & Gurevitch (1974). The theory explains what people do with media and why. The purpose of this study is twofold: it seeks to document reasons people with visual impairment use Facebook and it endeavors to reveal which variables can influence users’ decisions to use one social media platform instead of another. In particular, I am interested in determining factors motivating users with visual impairment to use certain platforms and the gratifications that they receive. Accordingly, this study attempts to investigate the impact of social media on the daily lives of blind and visually impaired people and to examine the extent to which social media has allowed them to enrich their daily lives by building and participating in online communities. The targeted population is represented by a sample of one hundred sixty-eight Facebook users, all of whom are active members of Facebook groups. Data were gathered through an online survey that consisted of three main parts: (1) the reasons that visually impaired people use social media; (2) their perceptions of social networking sites; and (3) the impact of social media on blind and visually impaired users. The data gathered through the survey were analyzed using Excel.
Dedication

Dedicated to my beloved “mother and father” Bronson and Evelyn Stilwell, who took me under their wing when I arrived in Fayetteville and have been like family to me in their support and love. They included me in a warm family, helped me though the hardest days, and went beyond what I thought even family would provide, let alone people in a foreign country.

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List of Abbreviations:

**UGT**: Uses and gratifications theory

**SNSs**: Social networking sites

**Jaws**: Job Access With Speech

**NVDA**: Non Visual Desktop Access

**CUBiC**: Cognitive Ubiquitous Computing

**RNIB**: Royal National Institute of blind people
Introduction

This study attempts to investigate social effect of social media on the daily social lives of people with visual impairment, using Facebook groups. Facebook is currently the most popular website among people with visual impairment (Wu, and Adamic, 2014).

According to the Los Angeles Times (November 11, 2019) Facebook has been a site for 2,450,000,000 Facebook users to socialize, communicate, interact and share information worldwide. The blind and visually impaired are a significant block of Facebook users. But the question is: how many blind and visually impaired people are Facebook users? We can only estimate this number. We start with the total number worldwide - comprising 45 million totally blind and 285 million partially blind (World Health Organization, 2012). Then we must have some assumptions. So, we can assume that blind and visually impaired persons use Facebook at the same rate as everyone else. Then we divide the visually impaired number (330 million) by the global population (7100 million) and determine that worldwide blind and visually impaired person are 4.65% of the global population. With this simple estimate, there would be 114 million.

Of course, by Facebook’s estimated number of users, to find this potential number of blind and visually impaired Facebook users one has to first divide the total number of blind and visually impaired worldwide by the total number of Facebook users worldwide and multiply it by 100. The other suggestion is to find out how many blind and visually impaired people could use technology with a screen reader who have access to Facebook and divide that number with the total amount of Facebook users. Since one user can join multiple Facebook groups for the blind and visually impaired, the final result would not be accurate and may lead to double counting. Researchers have to bring their attention towards this
category of people in analyzing and seeking to know how they interact with each other as well as the outside world, using Facebook. In fact, it should be noted that the average time these users spend on social networking sites has almost tripled since 2006 (Wu, and Adamic, 2014). A recent statistic shows that more than 100,000 blind and visually impaired individuals own an Apple iPhone since the introduction of a screen reader (VoiceOver) in 2007. (Rauterberg, Qiu, & Hu, 2015). The question is how these social networking sites help visually impaired users overcome social isolation through socialization and interaction with other users throughout the world.

The enhancement of social media, with features that allow people with specific needs to interface with them, is of great help to people with visual disabilities who rely on different technological tools to express themselves (Inan, Namin, Pogrund, & Jones, 2016). Until recently, the Braille method was the main tool available for people with visual impairment (Jimenez et al., 2009). However, in recent years, various social networks have been developing other tools to increase access for the visually impaired such as screen reader technology, which converts written text displayed on the computing device to audio text (Inan, Namin, Pogrund, & Jones, 2016). As a result, more people with visual impairment are becoming active users of social media. In fact, social networking sites play a vital role in socialization for visually impaired people, especially in their education and acquisition of social cues. Facebook has facilitated the access to different tasks especially for blind people who cannot do their daily life activities in person (Ranjha, Quratulain & Rufi, 2015). Accordingly, this study attempts to investigate the social effect of social media on the daily lives of blind and visually impaired people and to examine the extent to which social media has allowed them to engage in the social life by building and participating in online
communities. Nothing can truly replace a blind person’s sight, but social media has opened doors for blind and visually impaired users and has facilitated many activities in their daily lives. Notably, it allows them to access information, work independently, execute errands such as shopping, participate in education and training, navigate the physical world, and communicate and socialize with others (Ari & Inan, 2010; Asuncion et al., 2012; Barile, Fichten, & Asuncion, 2012; Koustriava & Papadopoulos, 2014; Shuster, 2002. Cited in Inan, Namin, Pogrund, & Jones, 2016).

This study relies upon the Uses and Gratifications Theory (UGT), which assumes that people actively seek out specific media content and platforms for particular purposes and goals, to provide a comprehensive theoretical framework for structuring the research questions and interpreting the results. I selected this theory because of its potential to help explain why people with visual impairment use social media by identifying the uses and gratifications that people with visual impairment receive from using social media. This in turn will demonstrate the importance of UGT to social media research and establish a foundation for future research on the experiences of visually impaired social media users. A more detailed discussion of uses and gratifications theory and its relevance to social media will be provided in the literature review. Moreover, this study is also designed to illuminate existing perceptions of social media among people with visual impairment, to provide insights into the particular importance of Facebook groups in forming communities and enhance their professional goals, and ultimately to facilitate the improvement of technologies that provide visually impaired users with access to the public sphere.

The uses and gratifications theory along with the research findings will be used to address the following research questions:
• To what extent do people with visual impairment use Facebook groups?
• Why do visually impaired people use Facebook groups?
• What are the advantages of Facebook groups on visually impaired people’s social lives?

The study begins with a brief summary of the literature on social media and Uses and Gratifications Theory, followed by a description of the methodology used, and then by the research results. Finally, I describe the limitations that affected this study and present suggestions that will help future researchers design better studies and gather more comprehensive results.
Chapter 1: Literature Review

People with Visual Impairment and the Challenges They Face

The decision to focus on people with visual impairment in this study emanates from the assumption that there is a sizeable population of blind people worldwide. According to a report from the World Health Organization, (cited in Al Zayer and Gunes, 2017), about 285 million people were recorded to be visually impaired worldwide, in 2012. This number represented around four percent of the global population at that time.

According to Foley, and Masingila (2015), people with visual impairment have historically faced three main challenges: access to information, independent travel, and lack of meaningful experiences. They added that in countries where technology is available and adapted to people with special needs, these difficulties have been mitigated to some extent, but often imperfectly. In the Netherlands, for example, there are 2,600 visually impaired children; their age ranges from 0 to age 14, and there are also many adults whose visual impairments are mainly due to developmental and genetic disorders. These children face challenges in learning and applying knowledge and achieving independent mobility, and young adults tend to have difficulties with interpersonal relationships, communication, and leisure activities (Shirley, Banda, Ajuwon, Cheon, Lee, Park & Lyngdoh, 2017). This example is given to illustrate some statistics and challenges faced by blind people in the Netherlands because it was unique to make a generalization and have an idea about the number of visual impaired people in the world.

The ability to use expressive behavior is of great importance for societies, as well as their constituent individuals, as emphasized by some social, behavioral, and developmental sociologists (Panchanathan, Chakraborty and McDaniel, 2016). Though
spoken language plays an important role, it only accounts for about thirty-five percent of communication, with about sixty-five percent occurring through non-verbal cues (Panchanathan, Chakraborty and McDaniel, 2016). Nearly half of all non-verbal communication occurs through facial expressions and bodily gestures, while the other half occurs through the pace and loudness of the voice as well as the intonation. Taking into consideration that most non-verbal cues such as direction of gaze, head nods, bodily mannerisms, and facial expressions are perceived visually, people with visual disabilities are deprived of access to these cues and thus confront many obstacles when interacting and communicating with their sighted peers (Panchanathan, Chakraborty and McDaniel, 2016).

It is worth mentioning that a large percentage of the world’s population lives with some form of disability (Panchanathan et al., 2016). Nevertheless, most of today’s multimedia technologies target only the able population. In this regard, Panchanathan et al (2016), claims “Individuals with disabilities (such as visual impairment) have largely been absent in the design process, and have to adapt themselves (often unsuccessfully) to available solutions. Today’s multimedia technology is largely geared toward the ‘able’ population” (p. 942). Thus, there is an urgent need for the development of multimedia technologies that can be accessed by people with various disabilities. Thus, there is an immense effort underway to address these challenges and enrich the experiences of individuals with visual impairment through the development of multimedia computing technologies and other accessible technologies. Cognitive Ubiquitous Computing (CubiC) at Arizona State University has invested considerable efforts towards the development of multimedia computing technologies. One example to mention for this effort is the design and development of a
social interaction assistant to enrich the interaction experience of individuals with visual impairments (Panchanathan, Chakraborty and McDaniel, 2016).

People with visual impairment tend to have limited access to electronic and print information resources (Destounis et al., 2004). That is to say, not all print information resources especially within libraries at universities are available and converted to accessible format for blind people (Ranjha, Quratulain & Rufi, 2015).

Most of the institutions don’t have the resources to make their content more accessible. Another main challenge is the high expenses to have special technologies. According to Panchanathan et al (2016), special-purpose assistive technology is available for people with visual impairment. Yet, the disabled population cannot afford to buy these technologies because they come with a hefty price. As a matter of fact, about 90% of the world’s 285 million visually impaired people live in low-income settings (Vashistha et al., 2015).

Social Networking Sites and its Importance for People with Visual Impairment

Social Networking Sites: Definitions

The term “social media” refers to applications and websites (Facebook, Twitter, Instagram, WhatsApp, LinkedIn, etc.) that enable people to share information and connect with others who share their interests. Social media use has spread quickly since the beginning of the twenty-first century. Along with other online social networks, Facebook has grown to become a major part of many visually impaired people online experience. Sixty-nine of American Internet users are also Facebook users, and the average time they spend on social networking sites has almost tripled since 2006.

These rapid developments have attracted the attention of researchers throughout the world, and research has extensively documented the impact that social media has had on
users’ everyday lives. People use social media for a variety of purposes including entertainment, education, social interaction, seeking employment, and political engagement (Dijk, 2006, Boyd and Ellison, 2007). People belonging to underrepresented groups can now use social media and connect within seconds, often overcoming ancillary barriers such as geographical location and social isolation, and establishing bridges between otherwise exclusive communities formed around other identity markers such as age or nationality. Many social networks, including Facebook, and WhatsApp, have fostered the formation of supportive communities for blind and visually impaired users that facilitate their social involvement and bolster their agency in the private and public spheres.

**Facebook:** It is one of the most popular social networking sites among people with visual impairment. Roughly 2.4 billion people in 180 countries are members of the site, and more join every day. It was launched on February 4, 2004 by then-nineteen-year-old computer science major Mark Zuckerberg, a student at Harvard University, and his roommates Dustin Moskovitz, Chris Hughes, and Eduardo Saverin. Since then, Facebook has attracted considerable attention among researchers. Gunter (2011) defines Facebook as “a place where people can meet and interact, swap photos, videos, and other information, and generally connect with friends, family, coworkers, fellow students, fellow hobbyist and enthusiasts, and numerous others in their social network”. It was concluded from the “Arab Spring” that Facebook highly contributed to form political and cultural views towards unity. This has indicated the Facebook’s immense cultural impact, its broad use in politics and business, and is centrality in the modern digital sphere (p.5). Bozarth (2010) demonstrates that Facebook can extend the learning process beyond the walls of institutions, offering a space for socialization and ongoing contact between people and their educators and
promoting conversations. To fill this gap, Facebook is creating communities which allow blind people to become more engaged and less socially isolated with broader society. Many Facebook groups have been created for the blind. According to NoisyVision (2019), there is a total of 91 groups which range from support, tech advice to eye conditions. Inevitably, some of them are as follows: “Android For Blind” (6000 members), “Blind/Visually Impaired Law Community” (51 members), “Blind & Vision Impaired Support Network “6000 members), ”Blind PenPals” (6000 members), “Assistive Technology Community for the Blind and Visually Impaired” (5000 members), ”Blind & Visually Impaired YouTuber Support Group” (472 members), ”Blind Ios Users” (418 members) to list but a few.

Facebook groups and community

According to an article entitled “Facebook Groups: Connecting Blind and Partially Sighted People”, (n.d.), over the past few years at the Royal National Institute of blind people (RNIB), much efforts have been made to build and shape connect; a growing community, that brings together people with visual impairment. The main aim underpinning ‘Connect’ is similar to Facebook’s new mission; “bringing the world closer together.”

‘RNIB’ Connect is a diverse community united by the experience of living with little or no sight. This community wanted a place where they could make new friends and exchange ideas. Inevitably, Facebook Groups fits perfectly for this task. There are so many benefits of using Groups to build these online communities which are as follows: First, Community members already being part of Facebook, so no additional sign-ups or log-ins are needed and people know how to use it. Second, Facebook is one of the most accessible social media platforms to people with sight loss. In other words, Facebook groups help people with
visual impairment build a community where they could expand their connections, receive instrumental benefits and access informative and entertaining content” (Vashistha et al., 2015). Third, no website development costs are required. Fourth, group conversations are served in a person’s timeline, so it can be easily adopted into pre-existing habits. (“Facebook Groups: connecting blind and partially sighted people”, n.d.).

Social networking sites are very important for visually impaired people’s social life in the sense that they use different types of media at home, outdoors, and in school. Inevitably, social networking sites play a vital role in socialization for visually impaired people, especially in their education and acquisition of social cues (Ranjha, Quratulain & Rufi, 2015).

Assistive technologies can help people with visual impairment in many ways, especially when used in conjunction with social networking sites (Brady, et al, 2013). These technologies allow people with visual impairment to access information, work independently, shop, engage in educational workshops and trainings, and socialize and communicate with others (Ari and Inan, 2010. Cited in Panchanathan, Chakraborty and McDaniel, 2016). In other words, assistive technologies can help them maximize their potential and achieve personal, professional, and educational objectives.

**Theoretical Framework: Uses and Gratifications Theory**

Uses and Gratifications Theory, developed by Katz, Blumler, & Gurevitch (1974), assumes that people actively seek out specific media content and platforms for particular purposes and goals. It grew out of needs and motivation theory. Wimmer and Dominick (1994) argued that needs and motivation theory originated in the 1940s, when researchers became interested in why people immersed themselves in mass media such as popular music and newspapers. Most of the early its studies were descriptive, seeking only to classify
consumers of media into subcategories. Before the 1970s, needs and motivation theory research focused exclusively on the outcomes or gratifications obtained (Rayburn, 1996. Cited in Weiyan, 2015). However, this approach elicited a tide of criticism from other mass communications researchers. Critics such as Elliott, Swanson, Lometti, Reeves, and Bybee emphasized that it suffered from four serious conceptual problems: “First, a vague conceptual framework; second, a lack of precision in major concepts; third, a confused explanatory apparatus; and forth, a failure to understand audiences’ perceptions of media content” (Cited from Weiyan 2015, p.72). During the 1970s, in response to these criticisms, uses and gratifications theory emerged as a distinct theoretical framework pioneered by researchers interested in understanding users as active agents with subjective motivations who make conscious choices about which media platforms to use.

Specifically, uses and gratifications theory aims to identify the social factors motivating people to engage in a variety of media-related behaviors (Katz, Blumber, & Gurevitch, 1974). As Katz et al. (1974) concluded, its approach concerns the social and psychological origins of needs, which generate expectations of the mass media and other sources, which lead to differential patterns of media exposure (or engagement in other activities), resulting in need gratifications and other consequences, perhaps mostly unintended ones (p.20).

Uses and Gratifications theory assumes that people are goal-oriented and seek out gratifications, and that this drive leads them to active media use (McGuire 1974, p. 167-196). Notably, although social media users are viewed as active decision-makers, its scholars recognize that these decisions often have unintended consequences. According to Katz, Blumber, and Gurevitch (1974), five components comprise the Uses and Gratifications
approach. These components are as follows: First, the audience is perceived as active. Besides, in the mass communication process, much initiative in linking gratification and media choice lies with the audience member. In addition to this, the media compete with other sources of satisfaction. Furthermore, methodologically speaking, many of the goals of mass media use can be derived from data supplied by individual audience members themselves. Moreover, value judgments about the cultural significance of mass communication should be suspended while audience orientations are explored on their own terms.

While scholars have applied uses and gratification theory to investigate social media-related behaviors, no other studies have applied this theoretical framework specifically to study the behavior of visually impaired Facebook users. Ultimately, uses and gratifications Theory will inform this research not just by revealing how people with visual impairment use social media networks, especially Facebook, but also by helping to identify and catalog their reasons for doing so. Basically, some of these reasons for using Facebook would be to overcome their social isolation, form communities and obtain social and professional support.

**Related Studies**

Some researchers have studied the use of social media platforms by people with visual impairment in the developed world. For example, Fuglerud et al (n.d) investigated the challenges encountered by visually impaired Norwegian people using social media platforms. Wu and Adamic (2014) conducted a large-scale empirical study of how blind people use Facebook and found that most of the content they produce relates to vision impairment. They also concluded that blind people receive more feedback on their content, though their Facebook activities are similar to that of the general population. In addition, Brady et al. have
investigated how social networking platforms can be used for asking visual questions posed by blind users (Vashistha et al., 2015).
Chapter 2: Methodology

Introduction

The present chapter represents a synopsis of the different methodological procedures adopted in this research paper. First, a statement of the objectives of this study will be introduced and a reiteration of the research questions will be presented. Additionally, there will be a detailed account of the sample and the instrument involved in this study for data collection. This will be followed by a description of the piloting process. Finally, the statistical techniques used to analyze the collected data will be presented.

Research Setting and Participants

An online survey invitation was sent to the members of special Facebook groups for people with visual impairment, along with a short description of the study, consent form, and a link to the survey. Thus, the informants in the present research are people with visual impairment who belong to some special Facebook groups. The data collection procedure took five days; from June 30th, 2019 at 10 PM up to July 4th, 2019 at 2PM. The survey was posted in twelve Facebook groups which were created specifically to meet the needs of people with visual impairment. These groups are as follows: “Android For Blind” (6000 members), “Blind/Visually Impaired Law Community” (51 members), “Blind & Vision Impaired Support Network” (6000 members), ”Blind PenPals” (6000 members), “Assistive Technology Community for the Blind and Visually Impaired” (5000 members), ”Blind & Visually Impaired YouTuber Support Group” (472 members), ”Blind Ios Users” (418 members), “Blind and Visually impaired Ladies ❤️💞😊” (66 members), “Blind Friends” (1,260 members) and “blind friends worldwide” (279 members), “Blind And Vision Impaired Community” (5000 members), “Apple and Voiceover Users”
Worldwide” (586) It should be mentioned that because I posted many times in these groups, I was banned for a week and unfortunately I couldn’t continue posting the survey in other groups and my access to Facebook’s platform was denied because I was reported to the facebook administration by some people with visual impairment who assumed that the content posted was irrelevant and fraud that might happen to any researcher who is not socially active in the facebook groups and who joins as an observer. He or she could be viewed as an outsider or a spammer. Therefore, the link to the survey was considered as a spam according to the facebook algorithms. Having said this, these are some of the Facebook policies and limits which could lead to such situations: Fraud and deception, coordinating harm and publicizing crime, dangerous individuals and organizations, violence and criminal behavior. These policies are in service of the following values: authenticity, safety, privacy and dignity (facebook, 2020). Concerning the number of people with visual impairment participating in this study, a total of one hundred sixty-eight participants responded to the survey. The ten respondents, who did not complete the survey, were excluded. The data collection method used was the purposive sampling method, which is a practical and efficient tool when used properly. It tends to select participants interested and concerned with the issue under study and can be just as effective as, and even more efficient than, random sampling (Tongco, 2017). Thus, it is a deliberate choice of an informant due to the qualities the informant possesses. It is a nonrandom technique that does not need underlying theories or a set number of informants. Simply put, the researcher decides what needs to be known and sets out to find people who can and are willing to provide the information by virtue of knowledge or experience (Tongco, 2017).

**Instrument: The Questionnaire**
The questionnaire included 14 questions and was divided in three main parts. The first part was designed to collect data regarding the participants’ demographic characteristics (gender and age). The second part deals with the frequency of Facebook usage to determine the extent to which the participants of the study are interested in using Facebook (“How often do you use Facebook per day?”), number of Facebook friends (“How many friends do you have on Facebook?”). In addition to this, participants were asked to select the motives underlying their use of Facebook. The third part tends to elicit their experiences and attitudes about the social effect of Facebook (“Please describe your attitude towards Facebook groups as a mean for socializing?” and “Do you think participation in Facebook groups helps users overcome social isolation and exclusion?”).

The advantage of using a questionnaire, from the formal point of view, is that it provides the anonymity of respondents and confidentiality of data, as well as complete standardization of the data collected.

**Data Collection**

Before data were collected, each participant was asked for permission. A pilot study was conducted to make sure of the clarity of the instructions in order to refine the survey for any necessary modification. Ten persons participated in the pilot study and were included in the research sample.

**Research Objectives**

The first question seeks to determine what motivates people with visual impairment to use Facebook. The second question examines the social impact that Facebook has on people with visual impairment.
Research Questions:

To achieve the aforementioned objectives, this study poses the following questions:

- To what extent do people with visual impairment use Facebook?
- Why do people with visual impairment use Facebook groups?
- What social impact does Facebook have on visually impaired people?

Research Hypotheses

The previously mentioned research questions are reformulated in terms of the hypotheses cited below:

- People with visual impairment spend a considerable amount of time in using Facebook groups.
- The social factors are the origin needs for people with visual impairment to use Facebook.
- The use of social media will have a beneficial effect by facilitating their daily lives.

Conclusion

In this chapter, an attempt has been made to describe the methodological procedures adopted by the investigator. In this regard, the sample, instruments, data collection procedure, and statistical analyses used have been capitalized on. In the next chapter, there will be a description and analysis of the results obtained in this study.
Chapter 3: Data Analysis and Discussion

Introduction

This chapter will shed light first on the personal backgrounds of respondents. Then, it will discuss the respondents’ answers concerning Facebook and the impact it may have on their social lives.

Personal Background Information

Gender

The link to the questionnaire was sent to thousands of potential respondents with the intention of receiving 300 responses. Ultimately, only 168 people with visual impairment chose to respond. Female respondents represent 55% of the sample, and male respondents represent 43% of the sample. The remaining 2% opted not to disclose their genders. Figure 3.1 illustrates this variable’s distribution.

![Gender Distribution](image)

Figure 3.1 Gender of Respondents
Age

*Figure 3.2* sorts the respondents by age range. Seventy respondents fall into the 20-to-22-years-old age category, 40 respondents fall into the more-than-40-years-old category, 38 respondents fall into the 30-to-40-years-old category, and 14 of the respondents fall into the less-than-20 years-old category. Six respondents preferred not to disclose their ages.

![Age of Respondents](image)

*Figure 3.2 Age of Respondents*

Country of origin

Out of 168 respondents, 80 reported that they are from United States, 30 reported that they are from Morocco, and 16 reported that they are from India. Several other countries are represented by only one or two respondents, as illustrated by *Figure 3.3*. These respondents are completely anonymous.
Figure 3.3 Countries of Origin

Type of device and screen reader

Thirty-seven percent of respondents said that they typically use iPhones to access social media, 14% said that they prefer to use computers, 20% with Apple computer, 10% with Windows computer and only 9% said that they prefer tablets and Android. Meanwhile, 66 participants rely heavily on Voiceover technology for screen reading, 35 persons prefer NVDA (NonVisual Desktop Access). It is a free "screen reader" which enables blind and vision impaired people to use computers. It reads the text on the screen in a computerized voice. (“Microsoft Word With NVDA," 2016.). In addition, 27 of participants prefer Jaws which stands for "Job Access With Speech"; a computer screen reader program for Microsoft Windows that allows blind and visually impaired users to read the screen either with a text-to-speech output or by a refreshable Braille display.(Rauterberg et al., 2015) Furthermore, 18 respondents go for Talk back and most other screen readers are preferred by few respondents as shown in the Table 3.1 below.
### Table 3.1: Type of device

<table>
<thead>
<tr>
<th>Device</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apple computer</td>
<td>20%</td>
</tr>
<tr>
<td>Laptop</td>
<td>14%</td>
</tr>
<tr>
<td>IPhone</td>
<td>37%</td>
</tr>
<tr>
<td>windows Computer</td>
<td>10%</td>
</tr>
<tr>
<td>Tablet</td>
<td>9%</td>
</tr>
<tr>
<td>Android</td>
<td>9%</td>
</tr>
<tr>
<td>Other</td>
<td>1%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

### Table 3.2: Type of screen reader

<table>
<thead>
<tr>
<th>Screen reader</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voice over</td>
<td>66</td>
</tr>
<tr>
<td>NVDA</td>
<td>35</td>
</tr>
<tr>
<td>None</td>
<td>5</td>
</tr>
<tr>
<td>Jaws</td>
<td>27</td>
</tr>
<tr>
<td>Talk back</td>
<td>18</td>
</tr>
<tr>
<td>Smart voice</td>
<td>4</td>
</tr>
<tr>
<td>Kindle</td>
<td>1</td>
</tr>
<tr>
<td>Android</td>
<td>3</td>
</tr>
<tr>
<td>Esprak TTs</td>
<td>2</td>
</tr>
<tr>
<td>System access</td>
<td>2</td>
</tr>
<tr>
<td>Google assistant</td>
<td>2</td>
</tr>
<tr>
<td>Screen enlargement</td>
<td>1</td>
</tr>
<tr>
<td>IDK</td>
<td>1</td>
</tr>
<tr>
<td><strong>ALL</strong></td>
<td><strong>168</strong></td>
</tr>
</tbody>
</table>
Questions about Facebook

The first question is related to the extent to which people with visual impairment are interested in using Facebook. Participants were asked many Facebook which are analyzed as follows:

Number of Facebook friends

Figure 3.4 indicates that 43% of respondents have between 200 and 1000 friends on their Facebook accounts. Twenty six percent of respondents said that they have between 10 and 200 friends. 21% declare to have between 1000 and 4000 friends and only 10% of them claim to have more than 4000 Facebook friends.

![Figure 3.4 Number of Facebook Friends](image)

Membership in Facebook groups

95% of respondents are members of Facebook groups. Yet, 5% of participants, who are mainly from those who received the link via their E-mails, claim not to be a member in any Facebook groups. Generally speaking, this indicates that visually impaired social media
users are indeed interested in socializing and communicating through groups. In addition to that, blind and visually impaired people fully enjoy the same experience including the visual aspects such as photos. Facebook has launched a feature called Automatic Alternative Text which describes a photo using object recognition technology (Chowdhry, 2016). Figure 3.5 goes further to illustrate the number of groups to which the respondents belong. Seventy-four participants said that they participate actively in 1 up to 10 groups, 33 participants said they participate actively in 10 up to 20 groups, and 33 said that they were members of more than 30 groups.

![Figure 3.5 Number of Facebook Groups]

**Time spent on Facebook daily**

Figure 3.6 illustrates the number of hours the respondents spend on Facebook per day. Thirty-nine percent of respondents reported that they spend less than one hour on Facebook per day, 24% reported that they spend 1 to 2 hours per day, 19% reported that they spend 2 to
4 hours per day, 8% reported that they spend 4 to 6 hours per day, and 6% reported that they spend 6 to 8 hours per day. Only 4% of respondents said that they spend more than 8 hours on Facebook per day. Noticeably, this indicates the growth of interest into social networking sites among people with visual impairment. This shows that the respondents spend a considerable amount of time in Facebook groups and have many friends which means they benefit from it and have certain motives in using Facebook groups.

Figure 3.6 Number of Hours spent on Facebook per day

Comment on others’ posts

The majority (74%) of respondents reported that they regularly interact with other Facebook users by commenting on their posts. On the contrary, only 26% reported that they do not comment on other’s posts. Figure 3.7 illustrates this distribution. The fact that most respondents frequently comment on others’ posts is highly significant and clearly shows that the participants in this study are active Facebook users.
Motives to use Facebook

Issues discussed on Facebook

The results illustrated by Figure 3.8 reveal that 80 respondents tend to discuss social issues, 69 tend to discuss academic issues, 17 respondents tend to discuss religious issues, and 14 respondents tend to discuss political issues. The rates shown in the figure indicate that the primary topics discussed are social and academic issues. To make this question clear, it is as follows:

✓ Which of the following issues do you discuss on Facebook?

Table 3.3 Issues discussed on Facebook

<table>
<thead>
<tr>
<th>Academic issues</th>
<th>Social issues</th>
<th>Religious issues</th>
<th>Political issues</th>
<th>Entertainment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The participants were not asked to pick only one response. That is to say, they were free to pick all the issues they discuss through Facebook so that we could calculate the frequency of the issue. Inevitably, the most important uses of Facebook tended to be related
to the ‘social issues’ and. Specifically, the use of the site to communicate with friends and maintain or re-connect relations scored consistently highly.

![Figure 3.8 Issues discussed on Facebook](image)

**Communication with friends through Facebook**

Ninety-two percent of respondents confirmed that they regularly communicate and interact with their Facebook friends. Eight percent claimed not to communicate regularly with friends via Facebook. This result was further emphasized by reported frequency of communication, illustrated in *Figure 3.9*. Sixty-five participants said that they sometimes (four times a week) communicate with friends, 42 said that they usually (six times a week) do so, and 36 report that they always do so. Twenty-one participants rarely interact with friends on Facebook, and 4 of them never communicate with friends on Facebook.
Figure 3.9 Frequency of Communicating with Friends through Facebook

The effect of Facebook on the social lives of people with visual impairment

Effectiveness of Participation in Facebook Groups as a Means of Overcoming Obstacles

Presented by Visual Impairment

As shown below in Figure 3.10, 74% of respondents reported that Facebook groups have helped them overcome obstacles such as social isolation and exclusion. Most of people with visual impairment do not participate actively in physical activities. They face challenges to move into the community and have to bear isolation, complexes or other behavior problems. Therefore, they spend their leisure time by interacting with others via Facebook groups, listening to music, news, TV programs and dramas. The findings indicate that only 26% claim that Facebook groups have not helped them overcome such obstacles.
Overcoming Visual Impairment Obstacles through Facebook

This was presented as an open-ended question intended to elicit the respondents’ perceptions of and attitudes toward Facebook as a means of socializing. The majority of respondents expressed a positive attitude toward Facebook as a tool for socializing. Users of Facebook keep in touch with friends and family and express themselves freely without having to navigate physical obstacles. However, some respondents reported challenges. For instance, according to one respondent, “The Company continuously evolves its products, which can introduce changes to screen reader flow.” That is to say, the continuous development of technological devices should take into consideration people with visual impairment population and equip those devices with special technical features. Another participant wrote, “The challenges arise in both creating and consuming visual content. As a result, we feel isolated and frustrated when we cannot fully participate in the interaction around visual content.” Based on what has been said above, a large majority of respondents reported using
Facebook to communicate with friends. The following examples illustrate the users’ focus on social interaction with their peers:

“I use Facebook because it is a good way to keep me updated about my friends’ news.”

“Through Facebook, I can communicate through messages, wall posts, and even events. I have been able to have a real friendship through Facebook, which is one of the most reasons why I use it.”

“Signing a Facebook wall is a lot easier and less time consuming than picking up the phone to call a friend.”

One respondent commented, “Facebook enables contact with friends and classmates that I knew in my high school.” In this regard, while Facebook groups provide a fun platform for people to communicate online, it also creates new challenges for people with visual impairment, as well as reproducing some of the challenges that they face in the physical world. These results clearly show that people with visual impairment find Facebook groups very useful and beneficial for them in terms of socialization and communication.
Conclusion

This study was designed to investigate the reasons underlying the use of Facebook among people with visual impairment, and the effects of social media usage on their social lives. One main reason for undertaking this project is that to date, very little research has been done to illuminate how people with special needs interact with social media and use it to interact with each other and the outside world. This case study had three main objectives. First, the study aimed to understand the extent to which visually impaired Facebook users use Facebook groups in terms of time spent on Facebook, number of Facebook friends and membership in Facebook groups and determine what motivates them to use Facebook. Second, I sought to demonstrate the importance of Uses and Gratifications Theory to social media; Apply Uses and Gratifications Theory to social media; and identify the uses and gratifications that people with visual impairment receive from using social media. The third objective was to examine the effects that Facebook has on the social lives of people with visual impairment.

Before pursuing these objectives, it was necessary to elicit participants’ level of Facebook groups use Facebook. According to their responses, 43% of respondents have between 200 and 1000 friends on their Facebook accounts. Ninety-five percent of respondents reported that they are members of Facebook groups. Forty percent reported that they spend 1 to 2 hours per day on Facebook, and 33% reported that they spend 2 to 4 hours per day. Furthermore, the majority (83%) of respondents reported that they regularly interact with other Facebook users by commenting on their posts. Taken together, these findings clearly indicate a high level of interest in using Facebook, and Facebook groups in particular, to connect and communicate within the visually impaired community. Based on what has
been so far, this high level of interest in using Facebook confirms one of the definitions and principles of uses and gratifications theory. Uses and gratifications theory discusses how users deliberately choose mass media; in this context ‘Facebook’ that will satisfy given needs and allow one to enhance knowledge, relaxation, social interactions/companionship, diversion, or socialization. It assumes media viewers are not passive. Based on this, the results of this study indicate that participants are active and very well aware of their specific needs. Uses and gratifications theory believes in audience power and suggests that viewers consciously select their desired media according to specific need for achieving gratification. That is to say, uses and gratifications theory as mentioned earlier, assumes that people actively seek out specific media content and platforms for particular purposes and goals which are going to be stated in the upcoming paragraph.

As for factors motivating visually impaired people to use Facebook, 48% of respondents revealed that their main reason for using Facebook was to discuss social issues and interact with people from other backgrounds and cultures. The next most influential motive was to discuss academic issues, with 41% of participants claiming this as their primary reason for using Facebook. Based on these results, the main reason why people with visual impairment is to socialize and discuss social issues.

Concerning participants’ perceptions of the impact that Facebook usage has on their social lives, most expressed positive attitudes. As per their responses to the open-ended question, Facebook helps them socialize and interact with other people. This has facilitated their communication with others, helping them arrange meetings and events through Facebook without requiring them to physically navigate the outside world. According to Katz, Blumler and Gurevitch (1974), UGT's approach was based on "the social and
psychological origins of needs, which generate expectations of the mass media or other sources, which lead to differential patterns of media exposure (or engagement in other activities), resulting in need gratifications” (p.20). This fact has been stated in the informants’ response to the open-ended question, Facebook helps them socialize and interact with other people. Also, Facebook groups have helped them communicate with others; arrange meetings and events through Facebook without requiring them to afford the physical attendance.

The importance of this research lies in the fact that it investigates the reasons behind the use of Facebook groups by people with visual impairment. It also gives them the chance to express their perceptions toward the social effect of Facebook groups on their social lives. Thus, the present research would be helpful for future research to know what visually impaired people need Facebook groups for what they could obtain using these platforms. This would enable the Facebook administration to take this category of people with special needs into consideration by making any necessary adjustments to Facebook platforms and adapt their settings and objectives to people with visual impairment’s needs and motives. The main reason in choosing people with visual impairment emanates from the assumption that there are only few research studies that have been conducted to understand their interactions with current mainstream social media (Rauterberg et al., 2015). Thus, it is hoped that the results of the study will provide valuable insights and guidelines and be a starting point for other studies.

**Limitations of the Study**

It is important to critically evaluate the methodology that produced them and identify issues that could have skewed the data so that readers may interpret the findings more effectively. Certain limitations affected the implementation of this study, and these need to be
taken into account. First, a sample of 168 participants is too small to accurately represent all visually impaired social media users active in Facebook groups. The sampling might be conducted better so that it yields a more generalizable population.

Second, the survey was not complemented by face-to-face interviews, meaning that opportunities to clarify ambiguous wording or misunderstandings between the researcher and participants were limited. This might affect both the validity of the results and their overall reliability. It should be noted that this is a self-report; we are relying on the respondents to correctly identify themselves.

Moreover, I encountered some obstacles while collecting data. Inevitably, I could not find any comprehensive list of rules and regulations governing Facebook; Facebook limits the amount of times you can post per week so I was banned from Facebook for posting too many times; because there are limits on how many times per week one can post, one week was not enough to elicit information from a sufficient number of participants; a longitudinal study would be required to gather more valid and reliable results; some visually impaired users could not access the questionnaire because the format wasn’t accessible to all screen readers, and the researcher was not able to anticipate this problem because it was compatible with the screen reader that she uses; many visually impaired users also reported the link to the questionnaire as spam, so Facebook removed it, making it inaccessible even to participants who were willing to respond to the survey; some Facebook groups for visually impaired people do not allow content that are deemed irrelevant to the group’s prescribed topics, meaning that I got blocked from those groups simply for requesting to conduct research there. I suggest for future research to focus and try to answer the following questions: how much do they use Facebook? What kind of content do they produce and share? How are their social
networks structured?. I recommend future researchers about this area of study to meet people with visual impairment in person and conduct face to face interviews to get in depth data survey.

This work shows that Facebook has a strong impact in the blind and visually impaired communities. There is a strong need to make social networks more accessible to screen readers so that these communities can benefit from the power of social media. This will allow the blind and visually impaired communities to have greater collaboration and participation in the world at large.
References


25. www.facebook.com
1- Questions about personal background

1. How did you receive this survey?
   - Email
   - Facebook group(s)
   - Whatsapp
   - Facebook Messenger
   - Other

2. Gender
   - Male
   - Female
   - Prefer not to say
   - Other

3. Age
   - 25-30
   - 31-35
   - 36-40
   - 41-55
   - 56-65

4. What type of device do you use to access social media?
   - Phone
   - Apple Computer
   - Tablet
windows Computer

Tablet

Other ........................

5. What type of screen-reader do you use?
   Apple Voice over
   JAWS
   NVDA
   Windows JAWS/NVDA

2- Questions about Facebook

1. How many Facebook friends do you have?.................................

2. Are you a member of any Facebook groups?
   Yes  
   No

3. If yes, how many Facebook groups are you a member of?...............  

4. How many hours do you spend on Facebook per day?

<table>
<thead>
<tr>
<th>Less than one hour</th>
<th>1 to 2 hours</th>
<th>2 to 4 hours</th>
<th>4 to 6 hours</th>
<th>6 to 8 hours</th>
<th>More than 8 hours</th>
</tr>
</thead>
</table>

5. Do you comment on other’s posts (videos, notes,photos)?
   Yes  
   No
6. Which of the following issues do you discuss on Facebook?

<table>
<thead>
<tr>
<th>Academic issues</th>
<th>Social issues</th>
<th>Religious issues</th>
<th>Political issues</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7. Do you communicate with your friends through Facebook?

Yes ☐
No ☐

If yes, how often?

<table>
<thead>
<tr>
<th>Always</th>
<th>Usually</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

- Sometimes = Four times a week
- Usually = Six times a week

8. Do you use Facebook groups for practical concerns in your everyday life?

Yes ☐

No ☐

Maybe ☐

If yes, how?.................................

9. Please describe your attitude towards Facebook groups as a means for socializing?

..........................................................

..........................................................

..........................................................

.................................
10. Which of the following do you use Facebook groups for?

Conduct business
Online dating
Discuss personal issues
Discuss general topics

11. Which of the following online platforms do you use besides Facebook?

Youtube
Twitter
LinkedIn
Whatsapp
Email
Blogs

12. Do you think these other social media platforms are as user-friendly as Facebook?

Yes
No

13. Why do you think that these other platforms are more user-friendly, or conversely, are not more user-friendly than Facebook?

........................................................................................................................................
........................................................................................................................................
........................................................................................................................................

14. Do you think participation in Facebook groups helps you overcome such issues as social isolation and exclusion?

Yes
No
Prefer not to answer
To: Itto Outini
From: Douglas James Adams, Chair
IRB Committee
Date: 05/04/2019
Action: Exemption Granted
Action Date: 06/04/2019
Protocol #: 1905199154
Study Title: The Impact of Social Media on the Daily Lives of Visually Impaired People: Facebook Groups as a Case Study

The above-referenced protocol has been determined to be exempt.

If you wish to make any modifications in the approved protocol that may affect the level of risk to your participants, you must seek approval prior to implementing these changes. All modifications must provide sufficient detail to assess the impact of the change.

If you have any questions or need any assistance from the IRB, please contact the IRB Coordinator at 109 MLKG Building, 5-2208, or irb@uark.edu.

cc: Larry D Foley, Investigator