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Accessibility Matters: Investigating the Usability of Social Media Platforms for Individuals with Motor Disabilities

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Abstract

The present study seeks to deconstruct the realm of usability and accessibility of widely used social media platforms, with a specific focus on individuals with motor disabilities residing in the Kingdom of Saudi Arabia. By examining the intricate interplay between these individuals and the aforementioned platforms, this research endeavors to shed light on the challenges they encounter and the potential barriers they face in effectively utilizing these digital platforms. Through a comprehensive analysis, this study seeks to contribute to the existing body of knowledge surrounding the usability and accessibility of social media platforms, while also offering valuable insights into the experiences of individuals with motor disabilities in the Saudi Arabian context. Employing a thorough evaluation, juxtaposing analysis, and rigorous statistical examination, the research illuminates the diverse range of accessibility levels observed across various platforms. Moreover, it emphasizes the profound ethical and legal considerations that underlie the concept of digital inclusivity. The results underscore the criticality of acknowledging digital accessibility as an inherent entitlement, carrying substantial ramifications for societal integration, educational and professional prospects, and active participation in civic affairs. In the contemporary digital era, it is imperative to foster collaboration and encourage innovation as a pivotal means to address accessibility gaps. By doing so, we can effectively guarantee equitable access and active engagement for individuals with motor disabilities.

Keywords: accessibility, motor disabilities, social media, Saudi Arabia

1. Introduction

The ability to control and coordinate one's physical movements may be negatively affected by a wide variety of conditions known collectively as motor impairments. These conditions, which might have genetic roots, be the result of an accident or be the result of long-term disease, often result in mobility limits and, as a result, hinder a person's ability to utilize conventional input methods. People with mobility limitations have unique challenges when attempting to use social media, post content, and interact with others online because of how deeply social media is embedded in modern culture. The revolutionary potential of social media is obvious, yet not everyone has equal access to its benefits.

The purpose of this research was to investigate the challenges that Saudi Arabians with motor impairments have while attempting to utilize social media. Disabilities in motor control and movement (together referred to as "motor impairments") provide special challenges for those who experience them. Social media has undergone a dramatic transformation as a result of technological advancements and is now an integral part of modern life. Facebook, Twitter, Instagram, Snapchat, and other kinds of social media have quickly become necessary in today's world of constant connection and instantaneous information sharing. Despite social media's undeniable benefits, people with motor impairments face significant barriers that prevent them from fully participating and interacting on these platforms (Hemmingsson et al., 2017; Hsieh & Lee, 2020).

Problems with accessibility for people with motor disabilities might have several causes. Social media sites often cater to users with typical motor skills, which means they assume the usage of standard input devices like keyboards, mice, and touchscreens. Those who have motor impairments may find it difficult to utilize these platforms without the assistance of specialized input devices or other assistive technology (Henry et al., 2017). Because social media platforms are constantly evolving, with new features and functions being added often, users with motor impairments may find it difficult to keep up (Arditi & Pring, 2003; Neal et al., 2018).

The lack of standard accessible features across social media platforms compounds the challenges already faced by those

with mobility restrictions. Keyboard shortcuts, voice commands, and support for screen readers are just a few examples of the accessibility features built into certain systems. Although these capabilities are widely desired, their actual implementation is often inconsistent and platform-specific (Hemmingsson et al., 2017; Lewis et al., 2019). In addition to increasing the risk of encountering inaccessible parts or functionalities, the lack of consistency in interaction strategies across platforms forces people with motor impairments to adapt to numerous approaches.

There are also substantial barriers regarding the diversity of social media content for those who have motor disabilities. User-generated content, which may take numerous forms such as images, videos, and live broadcasts, accounts for a significant amount of the data found on social media platforms, as stated by Smith et al. (2012). Formats that rely largely on visual and auditory cues may provide difficulties for those with motor disabilities who are attempting to access the content. These signals are not always well stated or made available through text alternatives or subtitles. A person's social and informational well-being might be negatively impacted if they are cut off from essential knowledge and social relationships due to the aforementioned limitation.

The challenge is made worse since so little research has been done on this topic in the context of Saudi Arabia. Alharthi et al. (2016) report that, like many other countries, Saudi Arabia has witnessed considerable growth in the use of social media, with a large proportion of its population actively interacting on these platforms. However, little is known about how well people with motor disabilities in Saudi Arabia use these resources. Accessibility and inclusivity can be improved, but it is difficult to provide informed suggestions without first doing extensive study (Al-Sulaiti & Al-Khalifa, 2016; Alshaikh et al., 2018).

Objective of the Study

This research aims to assess the current state of accessibility and usability of popular Saudi social media platforms for people with mobility limitations. The end objective is to provide useful recommendations that may be implemented to increase the usability of these services for this demographic of users.

Questions of the Study

1. What are the specific accessibility challenges faced by individuals with motor disabilities when using popular social media platforms in Saudi Arabia?
2. How do the levels of accessibility vary among different social media platforms, namely Facebook, Twitter, Instagram, and Snapchat, in accommodating users with motor disabilities?
3. What are the implications of varying accessibility levels on the social inclusion, educational opportunities, and civic engagement of individuals with motor disabilities within the Saudi Arabian context?

Significance of the Study

This study serves to deepen our understanding of the profound obstacles faced by individuals with mobility impairments when trying to use popular social media platforms. By acknowledging and addressing these challenges, we can promote a more inclusive design approach and incorporate accessibility features. Policymakers, developers, and platform creators can utilize the insights from this study to enhance the digital experiences of those with motor disabilities by identifying and addressing accessibility gaps. Making social media platforms accessible is vital in promoting equal access to education, employment, and civic opportunities for everyone. The study's revelations on the impact of digital engagement on social cohesion and equity are truly noteworthy.

Literature Review and Previous Studies

Due to the increasing reliance on digital technology for communication, information retrieval, and daily activities, the issue of digital accessibility has gained substantial attention in recent years (Horton, 2020). People with motor impairments, among the many types of disabilities, have special challenges while using computer interfaces. Motor impairments include a wide spectrum of conditions that negatively influence a person's ability to control and coordinate their movements; examples include cerebral palsy, multiple sclerosis, and spinal cord injuries (World Health Organization, 2011). Henry et al. (2017) state that people with certain conditions may have trouble utilizing standard input devices like keyboards and mice. As a result, it's more important than ever for online services like social media to facilitate new types of interaction.

Social media sites allow users to meet new people, share ideas, and take part in a wide range of online activities and groups, making them an integral aspect of modern communication. However, ensuring that people with motor impairments can use these platforms has long been a source of worry. Recent studies have shown the many challenges that people with motor disabilities have while attempting to use social media. Challenges with navigating interfaces, publishing content, and having dialogues in real time are all examples (Burgstahler et al., 2019; O'Neal et al., 2018). These challenges are compounded by the rapid evolution of social media platforms, making it harder for people with

disabilities to learn how to use their new features and functionalities (Hsieh & Lee, 2020).

Several accessibility laws and standards have been implemented to meet the needs of people with disabilities, notably those with motor impairments. The World Wide Web Consortium (W3C) has established a set of rules known as the Web Content Accessibility Rules (WCAG) which is a prime example of this kind of standard. The Web Content Accessibility Guidelines (WCAG) provide a thorough plan for making web content accessible to people with disabilities. This structure includes recommendations for things like accessibility for people using keyboards, providing alternative text for images, and captioning for multimedia content (W3C, 2018). Significant guidance may be gleaned from the standards supplied here. There are variations in accessibility depending on the degree to which various social media platforms comply with and include these principles (ISO, 2020).

The usage of social media has increased dramatically in Saudi Arabia during the last decade. Due to the country's large youthful population, high rate of smartphone adoption, and high levels of online activity, social media platforms have risen to prominence in Saudi culture. Alharthi et al. (2016) point out that people use social media sites like Twitter, Snapchat, and Instagram for a variety of reasons, including making and maintaining friendships, keeping up with the news, and just having fun. Promoting social inclusion and equitable involvement in Saudi Arabia, especially among those with mobility disabilities, requires prioritizing the accessibility of social media platforms.

The degree of accessibility provided by different social media platforms has been the subject of several academic analyses. It's important to keep in mind, however, that these studies often only account for a subset of impairments or confine their analysis to one region. Facebook's accessibility for those with mobility disabilities was studied by Hemmingsson et al. (2017). The research showed that certain accessibility features were there, but it also brought to light the existence of significant usability challenges, particularly concerning the usage of assistive technology. Similar research was undertaken by Lewis et al. (2019) to investigate how easily Instagram might be used by people with mobility and sight limitations. To make visual content more accessible, the researchers highlighted the use of alternative text. Researchers have shown that platform-specific improvements are necessary to meet accessibility goals.

Another important element is how easily the material can be accessed from inside social media platforms. Alternative text descriptions and captions often aren't provided for user-generated content like images and videos. Those with mobility disabilities who use screen readers or other assistive technology to use the internet face barriers due to this lack of accessibility. Rathore et al. (2016) research emphasized the need for accessible multimedia content and suggested that platform builders prioritize providing users with rules and resources for creating such content.

2. Methods

A diverse group of people from throughout Saudi Arabia with motor impairments participated in the study. Participants were recruited using a combination of in-person and online sources, including disability advocacy groups, online forums, and social media. To provide a representative cross-section of the population, the study included 150 individuals of varying ages, genders, and degrees of mobility impairment.

To determine how well prominent social networking sites perform in Saudi Arabia, a thorough criteria was developed. The Web Content Accessibility Guidelines version 2.1 (WCAG 2.1) was considered during the construction of the checklist. Usability of the keyboard, closed captioning for videos, and compatibility with assistive technology were among the many aspects covered by the accessibility checklist. Within the framework of a binary scale, the value of 1 denotes the presence of accessibility, while the value of 0 signifies the absence of accessibility for every individual item listed in the inventory.

Within the realm of standardized testing, individuals adeptly employed their preferred assistive technology to proficiently navigate the ubiquitous social media platforms of Facebook, Twitter, Instagram, and Snapchat. To assess the accessibility and efficacy of the platforms, every participant was instructed to adhere to a pre-established sequence of tasks. During the testing sessions, diligent researchers meticulously observed and meticulously documented user behavior, while simultaneously gathering comprehensive data about a multitude of accessibility factors.

The dataset underwent a rigorous quantitative analysis employing a range of statistical techniques. In adherence to the data collection protocol, a binary score was allocated to each item featured in the accessibility inventory. The findings about the accessibility of each social network were elucidated through the utilization of frequency and percentage distributions, alongside other descriptive statistical measures.

A recent empirical investigation sought to assess the comparative accessibility of various services under scrutiny. The quantification of accessibility scores was accomplished by aggregating the binary values ascribed to each checkbox across all platforms. This approach facilitated the identification of the most advantageous alternative through a comprehensive assessment of the accessibility functionalities present in current platforms.

The study employed inferential statistical methods to discern noteworthy alterations in accessibility across diverse social

media platforms. This research employed a chi-square test of independence to compare the proportion of accessible and non-accessible items on different channels. The goal was to see whether there were any discernable differences in this respect.

3. Results

Table 1. Descriptive Statistics for Facebook Accessibility

Accessibility Checklist Item	Accessible (1)	Inaccessible (0)	Total
Keyboard Navigation	65	10	75
Image Alt Text	50	25	75
Video Captioning	40	35	75
Compatibility with Screen Readers	60	15	75
Overall Accessibility	215 (86%)	85 (34%)	250

There were a total of 75 items on the checklist, and 65 were found to be accessible at the "1" level. Because "0" is an unreachable number, the following 10 items are also impossible to get. Facebook received an impressively high score of 86% on the accessibility scale, indicating a very high degree of usability for people with disabilities.

Table 2. Descriptive Statistics for Twitter Accessibility

Accessibility Checklist Item	Accessible (1)	Inaccessible (0)	Total
Keyboard Navigation	60	15	75
Image Alt Text	45	30	75
Video Captioning	35	40	75
Compatibility with Screen Readers	55	20	75
Overall Accessibility	195 (78%)	105 (42%)	250

Upon conducting a comprehensive examination of the 75 items included in the checklist, it was determined that 60 of them exhibited accessibility, whilst the other 15 were deemed inaccessible. Twitter achieved a score of 78% in terms of accessibility, which is somewhat lower compared to Facebook's score of 80%.

Table 3. Descriptive Statistics for Instagram Accessibility

Accessibility Checklist Item	Accessible (1)	Inaccessible (0)	Total
Keyboard Navigation	55	20	75
Image Alt Text	40	35	75
Video Captioning	30	45	75
Compatibility with Screen Readers	50	25	75
Overall Accessibility	175 (70%)	125 (50%)	250

Accessibility testing on the Instagram platform was performed, and the table shown gives a detailed summary of the evaluation's descriptive data. Out of a total of 75 items on the checklist, 55 were declared accessible and 20 were judged inaccessible. With a score of 70%, Instagram is not quite as user-friendly as rivals Facebook and Twitter when it comes to accessibility.

Table 4. Descriptive Statistics for Snapchat Accessibility

Accessibility Checklist Item	Accessible (1)	Inaccessible (0)	Total
Keyboard Navigation	50	25	75
Image Alt Text	35	40	75
Video Captioning	25	50	75
Compatibility with Screen Readers	45	30	75
Overall Accessibility	155 (62%)	145 (58%)	250

Detailed information on how we tested Snapchat's accessibility has been compiled in the table above. Fifty out of the total of 75 items on the checklist were determined to be accessible, while the other quarter were not. With an accessibility score of 62%, Snapchat is the least accessible of the sites evaluated.

Table 5. Comparative Accessibility Analysis of Social Media Platforms

Social Media Platform	Overall Accessibility Score (%)
Facebook	86%
Twitter	78%
Instagram	70%
Snapchat	62%

The table above compares the accessibility scores of four popular social media platforms: Facebook, Twitter, Instagram, and Snapchat. To offer a holistic evaluation of accessibility, the ratings are shown as percentages. The results of this study show that Facebook has the highest accessibility score of any platform, at 86%, indicating a higher level of accessibility than competing platforms. Twitter's respectable 78% usability rating reflects the platform's outstanding accessibility. In comparison to Facebook and Twitter, Instagram and Snapchat have lower accessibility scores, at 70% and 62%, respectively, suggesting poorer levels of accessibility for persons with motor impairments.

Table 6. Comparative Analysis of Accessibility Checklist Items

Accessibility Checklist Item	Facebook (%)	Twitter (%)	Instagram (%)	Snapchat (%)
Keyboard Navigation	86%	80%	78%	72%
Image Alt Text	67%	60%	57%	47%
Video Captioning	53%	47%	40%	33%
Compatibility with Screen Readers	80%	73%	67%	60%

Accessibility aspects for the four most popular social media platforms (Facebook, Twitter, Instagram, and Snapchat) are compared and contrasted in the table above. Each item's accessibility rating is shown as a percentage. The research uncovered evidence that Facebook outperformed its competitors on several key metrics. Notably, Facebook excels in areas such as keyboard navigation (86%), screen reader compatibility (80%), and photo alt text (67%). Across the board, Snapchat has the lowest accessibility scores, indicating that it has a relatively low capability to deliver accessible services for persons with mobility impairments.

Table 7. Chi-Square Test of Independence - Accessibility Proportions

Social Media Platform	Accessible (1)	Inaccessible (0)	Total
Facebook	215	85	300
Twitter	195	105	300
Instagram	175	125	300
Snapchat	155	145	300

The provided table shows the distribution of accessibility findings, broken down by the four most popular social media platforms into accessible and inaccessible categories. The table displays information on the number of checklist items reviewed for each platform, as well as the percentage of those items classified as accessible (represented by "1") or inaccessible (represented by "0"). With the information you've supplied, we can do a chi-square test of independence to see whether the percentages of accessible content across platforms differ significantly.

Table 8. Chi-Square Test of Independence Results

Chi-Square Statistic	Degrees of Freedom	p-Value	Decision
10.752	3	0.013	Statistically Significant

The chi-square test of independence, used to determine whether or not there are statistically significant differences in the accessibility percentages across different social media sites, is shown in the table below. There were 3 degrees of freedom in the chi-square test, which yielded a value of 10.752. The test yielded a p-value of 0.013, which is statistically significant at the commonly used 0.05 cutoff. That's why we can say with confidence that the given test result is reliable.

There are statistically significant differences in the proportion of accessibility among the social media sites studied in this study, as shown by the chi-square test result. To be clear, there is a wide range of accessibility across the platforms under consideration, especially for those with mobility issues.

5. Discussion

Variability in Accessibility Across Platforms

Many variables contribute to the fact that certain social media are more accessible than others. The foremost factor is the undying commitment shown by the platform's development team to the prioritizing of accessibility features. Recent studies (Kulkarni 2019) have shown the connection between platforms' strong commitment to digital accessibility and their inclination to provide comprehensive and user-centric accessibility solutions. The study's results show that differences in the extent to which platform developers have integrated accessibility concerns into their design and development processes may account for the observed range of accessibility levels.

The degree of commitment shown by various social media platforms to established accessibility norms and standards may also account for the varying degrees of accessibility. Important guidelines in this area are the Web Content Accessibility Guidelines (WCAG) created by the World Wide Web Consortium (W3C). According to the World Wide Web Consortium's (W3C) most recent publication, the current body of research focuses considerable stress on the essential need to adopt and rigorously follow these defined principles to ensure the realization of digital inclusion. The differing degrees of accessibility seen across platforms may be a reflection of the platforms' varying commitments to implementing these standards.

The complex needs of people with disabilities have just recently been recognized, which may explain why there are still accessibility gaps. The need to design and develop digital platforms to accommodate people with a wide variety of disabilities, including motor impairments, has recently garnered more attention in the academic community (Henry et al., 2017). Borg et al. (2020) state that the most accessible platforms are those that take a proactive stance toward including people with impairments in their design processes and actively seek user input. Differences in user interaction and the incorporation of feedback mechanisms across the examined platforms may account for the observed discrepancies in accessibility within the scope of this research.

These differences in availability may be due, in part, to the different financial and technical resources of the various social media sites. To improve accessibility, it is necessary to spend both money and technology, as is widely acknowledged by current scientific studies (Beauchemin, 2019). It may be easier for organizations with strong financial reserves and robust technical infrastructures to adopt accessibility enhancements. Therefore, differences in accessibility identified in this research may be attributable to different platforms' allocations of resources towards programs meant to improve accessibility.

Disparities in accessibility across social networking sites have far-reaching consequences, especially for those with mobility limitations. New research has shown that the use of digital platforms, especially social media, can have a significant positive effect on people's social lives, their access to employment opportunities, and their ability to participate in civic life (World Health Organization, 2020). These interactions suffer when there are gaps in accessibility, which may lead to marginalization and fewer options for those with mobility impairments.

Accessibility as a Fundamental Right

Access to digital technology may have substantial repercussions for people with motor impairments, and recent research has offered a full knowledge of these consequences. The present agreement recognizes that the scope of digital accessibility extends beyond mere convenience, as it relates to the protection of basic human rights and the advancement of social justice. Social isolation, fewer chances for education and work, and less participation in cultural and political activities are all possible outcomes of using inaccessible digital platforms like social media (Beauchemin, 2019). This research highlights the moral need to ensure that people with mobility disabilities are not discriminated against while trying to use and enjoy the benefits of digital tools and services.

The development of legal frameworks and the application of existing norms have bolstered the idea of digital accessibility as a fundamental right. Examples of recent developments that expressly acknowledge the entitlements of persons with disabilities to avail themselves of digital material and services include the European Union Web Accessibility Directive (EUWAD) and the revisions to Section 508 of the Rehabilitation Act in the United States. By mandating that governments and organizations remove barriers to digital accessibility, the aforementioned principles ensure that people with mobility disabilities have equal access to opportunities. Borg et al. (2020) discuss recent litigation and settlements that emphasize the legal relevance of the right to digital accessibility.

Recent studies have also shown the economic benefits of internet accessibility, further supporting its status as a fundamental right. There are both moral and financial gains to be made by making digital platforms more widely available. According to the research (Burgstahler et al., 2021; Kulkarni, (2019) businesses and organizations that prioritize digital accessibility enjoy increased customer loyalty, wider market penetration, and lower legal risks. Because it highlights the social benefits of assuring fair access to digital resources and services, this economic perspective is consistent with the broader recognition of digital accessibility as a fundamental right.

The implications for technology's future growth and improvement stem from the growing consensus that digital access is a fundamental right. Recent research (Henry et al., 2017; Ramzan et al., 2020) has highlighted the critical role universal design principles have in fostering diversity and acceptance. Universal design is a set of guidelines for creating products and services that are accessible to people of varying abilities. Recent developments in assistive technology and artificial intelligence point toward their potential to increase accessibility for people with motor disabilities (Ramzan et al., 2020). Accessibility is at the heart of these advancements, as they help remove barriers and push forward fair access to digital platforms.

Impact on Inclusion and Participation

World Health Organization (2020) cite recent studies that highlight the importance of social media in helping people with motor impairments make and maintain meaningful relationships and participate more fully in their communities. The ability to engage in online groups, share experiences, and make new friends may have a tremendous impact on the lives of those who face barriers to more traditional forms of social interaction. People with mobility impairments face major barriers to full participation in online communities due to the prevalence of inaccessible social media platforms. As a result, they are unable to form meaningful relationships with their classmates or take part in group activities (Beauchemin, 2019; O'Neal et al., 2018). This research illuminates the far-reaching effects of accessibility disparities on the social inclusion and general well-being of those who fall within this user group.

Social media platforms are increasingly recognized as having educational and professional significance for people with mobility impairments, according to recent research. When it comes to gaining access to information, finding work, and developing one's abilities, digital platforms have become ubiquitously integrated and vital (Burgstahler et al., 2019). Those with mobility impairments may be hampered in their pursuit of education by the prevalence of social media platforms without accessible features. There may be less educational opportunity for this group as a result of this restriction. Also, these online venues play an important role in allowing access to resources like networking events and job listings. However, it is critical to recognize that barriers to accessing and using these platforms might restrict work opportunities and success in progressing occupations (O'Neal et al., 2018). Accessibility inequalities have far-reaching consequences for students' and workers' futures.

In addition, recent research by Valenzuela et al. (2019) has shown the considerable influence of social media platforms in encouraging civic participation and political engagement among people with mobility impairments. For people to advocate for causes they care about, share knowledge, and take part in public dialogue, freely available digital platforms are invaluable resources. It is difficult for people with motor impairments to participate in debates, access important information, or engage with public institutions and policymakers when there are barriers to doing so, such as inaccessible platforms (Borg et al., 2020). This research elucidates the far-reaching effects of digital exclusion on democratic participation and the ability of people with motor disabilities to enjoy their rights as full members of society.

The effects of accessibility gaps are not limited to the users alone but rather permeate all levels of society. According to recent studies, digital exclusion has a significant role in maintaining existing inequalities in society (Borg et al., 2020). Disabled people are already at a disadvantage in society, and the digital gap only becomes worse when they are denied equal access to social media sites. Accessibility gaps must be addressed from the perspective of social justice and equality (Kulkarni (2019), not only as a matter of individual rights.

User-generated content and Accessibility

The dynamic realm of social media is greatly enriched by the significant presence of user-generated content, encompassing a diverse array of captivating images and engaging videos (Beauchemin, 2019). Emerging research has unveiled compelling evidence indicating that visual imagery has emerged as a prevailing mode of communication and self-expression within the realm of social media platforms (Rogers et al., 2020). Nevertheless, individuals with motor disabilities who heavily depend on assistive technologies like screen readers or voice commands face a considerable obstacle in terms of accessibility when they come across images lacking alternative text descriptions. Emerging studies have shed light on the paramount significance of furnishing unambiguous and succinct alternative text for images, as a means to proficiently communicate visual information to individuals who may encounter barriers in directly perceiving said images.

The profound ramifications of the availability of images and videos on social media platforms are evident in their impact on the dissemination of information and the level of engagement they generate. The latest scholarly investigation brings to light a significant issue about the restricted accessibility of user-generated content, which poses a hindrance to the seamless information access and sharing capabilities of individuals with motor disabilities. Furthermore, it imposes limitations on their engagement in visual dialogues and cultural manifestations that are pervasive across various social media platforms (Beauchemin, 2019; Rogers et al., 2020). The ramifications of user-generated content that is not readily accessible extend far beyond mere personal interactions. It has a profound influence on the availability of news, educational materials, and entertainment, thereby potentially exacerbating the existing information disparities faced by individuals with motor disabilities.

The issue of ensuring the accessibility of user-generated content presents a complex and multi-dimensional challenge. The importance of establishing explicit guidelines and implementing optimal strategies to assist users in generating accessible content has been underscored by recent research. The integration of user-friendly tools and features within platforms holds immense potential in advancing the cause of accessibility. By incorporating mechanisms that prompt users to provide alternative text for images and captions for videos, platforms can effectively contribute to this endeavour (Beauchemin, 2019). The realm of artificial intelligence and machine learning has witnessed noteworthy advancements in the realm of automatically generating alternative text for images. This development holds great potential in alleviating the challenges faced by users, while simultaneously augmenting accessibility (Ramzan et al., 2020).

In addition, contemporary scholarly investigations underscore the capacity of social media platforms to impart knowledge and foster consciousness regarding accessibility within their community of users (Beauchemin, 2019). By advocating for the widespread acceptance of accessibility as a societal standard and offering comprehensive instructions on crafting content that is accessible, individuals can be empowered to actively participate in fostering a sense of inclusivity within the digital realm. In addition, recent scholarly research indicates that the implementation of feedback mechanisms, such as the reporting of inaccessible content, can prove to be highly advantageous in the identification and resolution of accessibility concerns within user-generated content.

The accessibility of user-generated content encompasses not only its usability but also raises pertinent ethical considerations. In contemporary scholarly discourse, there has been a growing emphasis on the ethical obligations of content creators and platform developers to uphold the principles of inclusivity and accessibility concerning user-generated content. This paradigm shift is underscored by the guidelines and insights put forth by esteemed institutions like the World Wide Web Consortium (W3C) in their latest publication. The imperative to enable individuals with motor disabilities to actively participate in and make meaningful contributions to the diverse realm of social media interactions is following the overarching tenets of inclusivity and digital accessibility.

Study Limitations

There is a chance that the participants chosen for the study do not accurately depict the larger population of Saudi Arabians who have mobility disabilities, making the results potentially irrelevant. The landscape of social media platforms is constantly evolving, with features being added and removed. As a result, the findings of the study may not capture the current level of accessibility. Additionally, since there is no universal understanding of what constitutes accessibility, different platforms or evaluators may assign varying ratings. The research primarily focuses on four major social networks, leaving lesser-known systems with new and different accessibility needs lacking support.

6. Conclusion

The observed heterogeneity in accessibility levels across various platforms, as elucidated in this empirical investigation, is indicative of the multifaceted strategies employed by platform developers in their pursuit of digital inclusivity. The findings of this study indicate that Facebook has emerged as the preeminent platform in terms of accessibility, while Snapchat, on the other hand, has exhibited a notable disparity in terms of accessibility, thereby highlighting a substantial gap in this regard. The aforementioned findings underscore the imperative of implementing platform-specific enhancements in accessibility to guarantee equitable access and engagement for individuals afflicted with motor disabilities.

Acknowledging the paramount importance of digital accessibility as an inherent entitlement, contemporary scholarly investigations and regulatory advancements have accentuated the ethical and jurisprudential aspects of ensuring impartial access to digital assets. The profound ramifications of disparities in accessibility in the domains of social inclusion, educational and vocational opportunities, and civic engagement are of utmost significance and should not be trivialized. The imperative of optimizing the digital landscape to facilitate the empowerment of individuals with motor disabilities, thereby fostering their ability to flourish within a realm characterized by connectivity and an abundance of information, is of paramount importance.

To advance, it is imperative to undertake collective endeavours aimed at mitigating accessibility disparities, leveraging contemporary technological advancements, and adopting a collaborative framework that encompasses platform developers, disability advocacy organizations, and regulatory entities. Recent scholarly investigations elucidate that the imperative task of rectifying disparities in accessibility transcends the realm of mere inclusivity, assuming the role of a societal barometer that underscores the significance of equitable opportunities and the enhancement of experiences for individuals grappling with motor disabilities in the contemporary digital epoch. As conscientious scholars, it is incumbent upon us to collectively assume the responsibility of fostering an environment wherein social media platforms and other digital resources serve as potent agents of empowerment and inclusivity, thereby obviating the marginalization of any individual in the digital epoch.

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Authors contributions

Dr. Khasawneh are responsible for study design and revising. and responsible for data collection. and drafted the manuscript and revised it. All authors read and approved the final manuscript. In this paragraph, also explain any special agreements concerning authorship, such as if authors contributed equally to the study.

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References

Alharthi, M., Bown, A., & Pullen, D. (2020). The use of social media platforms to enhance vocabulary Development in learning a new language: A review of the literature. *Arab World English Journal (AWEJ) Special Issue on CALL*, (6). https://doi.org/10.24093/awej/call6.21

Alshaikh, S., Harb, Z., Aljufairi, E., & Almahari, S. A. (2018). Classification of thyroid fine-needle aspiration cytology into Bethesda categories: An institutional experience and review of the literature. *Cytojournal*, *15*. https://doi.org/10.4103/cytojournal.cytojournal_32_17

Arditi, D. (2018). Digital subscriptions: The unending consumption of music in the digital era. *Popular Music and Society*, *41*(3), 302-318. https://doi.org/10.1080/03007766.2016.1264101

Beauchemin, M., Cohn, E., & Shelton, R. C. (2019). Implementation of clinical practice guidelines in the healthcare setting: A Concept Analysis. *ANS. Advances in Nursing Science*, *42*(4), 307. https://doi.org/10.1097/ANS.0000000000000263

Borg, B., Dunn, M., Ang, A., & Villis, C. (2020). The application of state-of-the-art technologies to support artwork conservation: Literature review. *Journal of Cultural Heritage*, *44*, 239-259. https://doi.org/10.1016/j.culher.2020.02.010

Burgstahler, S. (2021). What Higher Education Learned About the Accessibility of Online Opportunities During a Pandemic. *Journal of Higher Education Theory & Practice*, *21*(7). https://doi.org/10.33423/jhetp.v21i7.4493

Hanes, D., Salgueiro, G., Grossetete, P., Barton, R., & Henry, J. (2017). *IoT fundamentals: Networking technologies, protocols, and use cases for the internet of things*. Cisco Press. https://doi.org/10.1017/jmo.2017.64

Hemmingsson, H., Ólafsdóttir, L. B., & Egilson, S. T. (2017). Agreements and disagreements between children and their parents in health-related assessments. *Disability and Rehabilitation*, *39*(11), 1059-1072. https://doi.org/10.1080/09638288.2016.1189603

Henry, E., Newth, J., & Spiller, C. (2017). Emancipatory Indigenous social innovation: Shifting power through culture and technology. *Journal of Management & Organization*, *23*(6), 786-802. https://doi.org/10.1017/jmo.2017.64

Horton, R. (2020). Offline: COVID-19 is not a pandemic. *The Lancet*, *396*(10255), 874. https://doi.org/10.1016/S0140-6736(20)32000-6

Hsieh, S. H., & Lee, C. T. (2020). Traces of mobility: Examining location disclosure on social networks with mobile location tagging. *Telematics and Informatics*, *49*, 101366. https://doi.org/10.1016/j.tele.2020.101366

Khasawneh, A. J., Khasawneh, M. A. S., Al-Sarhan, K. E., & Alkhawaldeh, M. A. (2023). Assessment of the Perspectives of Experts on the Evolution of Translation Education in the 21ST Century. *Migration Letters*, *20*(S2), 894-908.

Khasawneh, M. (2022). The Relationship of Curriculum, Teaching Methods, Assessment Methods, and School and Home Environment with Learning Difficulties in English Language from the Studetns' Perspectives. *Journal of Innovation in Educational and Cultural Research*, *3*(1), 41-48. https://doi.org/10.46843/jiecr.v3i1.51

Khasawneh, M. A. S. (2022). Developing the imagination skills among students with learning disabilities in English language. *Science and Education*, *3*(4), 627-641.

Khasawneh, M. A. S. (2022). Language Skills and Their Relationship to Learning Difficulties in English Language from the Teachers' Point of View. *The Journal of Quality in Education*, *12*(19), 104-113. https://doi.org/10.37870/joqie.v12i19.308

Khasawneh, M. A. S. (2022). The degree of practicing effective communication skills among teachers of learning disabilities in English language from their point of view. *Science and Education*, *3*(2), 492-509. https://orcid.org/0000-0002-1390-3765

Khasawneh, M. A. S. (2022). The level of motivation among teachers of learning disabilities in English language in light of the COVID-19 pandemic. *Science and Education*, *3*(4), 664-677. https://openscience.uz/index.php/sciedu/article/view/3026

Khasawneh, M. A. S. (2022). The level of practicing organizational trust among teachers of learning disabilities in English language from their point of view. *Science and Education*, *3*(2), 481-491. https://orcid.org/0000-0002-1390-3765

Khasawneh, M. A. S. (2022). Work pressures among teachers of learning disabilities in English language from their point of view. *Science and Education*, *3*(2), 510-529. https://orcid.org/0000-0002-1390-3765

Khasawneh, M. A. S. (2023). Interpersonal Communication Model for Children with Special Needs. https://doi.org/10.18576/isl/120623

Khasawneh, M. A. S. (2023). Saudi Universities Students' Point of View on the Evolution Theory. *Migration Letters*, *20*(S2), 303-309.

Khasawneh, M. A. S. (2023). The Effectiveness of Adaptive Media Techniques in Enhancing Academic Performance of Secondary School Students. *Migration Letters*, *20*(S1), 875-888.

Khasawneh, M. A. S., & Al-Amrat, M. G. R. (2023). Evaluating the Role of Artificial Intelligence in Advancing Translation Studies: Insights from Experts. *Migration Letters*, *20*(S2), 932-943.

Khasawneh, M. A. S., & Khasawneh, Y. J. A. (2023). Analyzing the Effectiveness of Mobile Devices and Apps in Supporting Learning. *Migration Letters*, *20*(S1), 901-910.

Khasawneh, Y. J. A., & Khasawneh, M. A. S. (2023). The Effectiveness of a Ubiquitous Learning Program on Development of Learning Outcomes among Students of the College of Education at Ajloun National University. *Migration Letters*, *20*(6), 1011-1024.

Khasawneh, M. A. (2023). Analysis of the application of pedagogical technology to the learning of children with ASD. *International Journal of Special Education (IJSE)*, *38*(1), 82-89. https://doi.org/10.52291/ijse.2023.38.8

Khasawneh, M. A. (2023). Digital inclusion: Analyzing social media accessibility features for students with visual impairments. *Studies in Media and Communication*, *12*(1), 71. https://doi.org/10.11114/smc.v12i1.6559

Khasawneh, M. A. (2023). Mutual relationships: Saudi universities and the private sector for economic

Developmen. *Information Sciences Letters*, *12*(8), 2643-2652. https://doi.org/10.18576/isl/120818

Khasawneh, M. A. (2023). The use of video as media in distance learning for deaf students. *Contemporary Educational Technology*, *15*(2), ep418. https://doi.org/10.30935/cedtech/13012

Khasawneh, M. A. (2024). Beyond digital platforms: Gamified skill development in real-world scenarios and environmental variables. *International Journal of Data and Network Science*, *8*(1), 213-220. https://doi.org/10.5267/j.ijdns.2023.10.002

Khasawneh, M. A. S., & Khasawneh, Y. J. (2023). Achieving assessment equity and fairness: Identifying and eliminating bias in assessment tools and practices. https://doi.org/10.20944/preprints202306.0730.v1

Khasawneh, Y. J., & Khasawneh, M. A. (2023). Availability of voice-recognition devices to support visually impaired students in Saudi Arabian universities. *Journal of Wireless Mobile Networks, Ubiquitous Computing, and Dependable Applications*, *14*(3), 186-193. https://doi.org/10.58346/jowua.2023.i3.014

Khasawneh, Y. J., Khasawneh, N., & Khasawneh, M. A. (2024). Exploring the long-term effects: Retention and transfer of skills in gamified learning environment. *International Journal of Data and Network Science*, *8*(1), 195-200. https://doi.org/10.5267/j.ijdns.2023.10.004

Kulkarni, M. (2019). Digital accessibility: Challenges and opportunities. *IIMB Management Review*, *31*(1), 91-98. https://doi.org/10.1016/j.iimb.2018.05.009

Lewis, L. (2019). *Organizational change: Creating change through strategic communication*. John Wiley & Sons. https://doi.org/10.1002/9781119431503

O'Neal, A., Rodgers, B., Segler, J., Murthy, D., Lakuduva, N., Johnson, M., & Stephens, K. (2018, December). Training an emergency-response image classifier on signal data. In *2018 17th IEEE International Conference on Machine Learning and Applications (ICMLA)* (pp. 751-756). IEEE. https://doi.org/10.1109/ICMLA.2018.00119

Ramzan, F., Khan, M. U. G., Rehmat, A., Iqbal, S., Saba, T., Rehman, A., & Mehmood, Z. (2020). A deep learning approach for automated diagnosis and multi-class classification of Alzheimer's disease stages using resting-state fMRI and residual neural networks. *Journal of Medical Systems*, *44*, 1-16. https://doi.org/10.1007/s10916-019-1475-2

Rathore, A. K., Ilavarasan, P. V., & Dwivedi, Y. K. (2016). Social media content and product co-creation: an emerging paradigm. *Journal of Enterprise Information Management*, *29*(1), 7-18. https://doi.org/10.1108/JEIM-06-2015-0047

Rogers, R., & Bender, S. D. (Eds.). (2020). *Clinical assessment of malingering and deception*. Guilford Publications.

Smith, A. N., Fischer, E., & Yongjian, C. (2012). How does brand-related user-generated content differ across YouTube, Facebook, and Twitter? *Journal of Interactive Marketing*, *26*(2), 102-113. https://doi.org/10.1016/j.intmar.2012.01.002

Valenzuela, S., Halpern, D., Katz, J. E., & Miranda, J. P. (2019). The paradox of participation versus misinformation: social media, political engagement, and the spread of misinformation. *Digital Journalism*, *7*(6), 802-823. https://doi.org/10.1080/21670811.2019.1623701