



HOW TO MAKE SOCIAL MEDIA PLATFORMS AND APPLICATIONS
ACCESSIBLE AND HOW IT IS HELPFUL TO BOTH PEOPLE WITH DISABILITIES
AND ALSO TO THE WORLD

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Abstract

This paper takes an interesting approach by analyzing the accessibility of popular social media to people with disabilities, focusing on how inaccessible design, poor compatibility with assistive technologies, and content pose difficulties. It analyzes current accessibility features being provided by the popular platforms, how effective these are at reducing barriers for users, and the broader social and economic implications of accessible social media. The study concludes with an emphasis on best practices of inclusive design in practice and suggests best practice to enhance accessibility, fostering an increasingly connected and more inclusive digital landscape.

Index Terms—Social media, Accessibility, WCAG, Usability, Inclusive, Community, Networking, Channels, Public networking, Posts.

I. INTRODUCTION

1.1 Background

The necessity of accessing social media is indispensable for the development of a proper-inclusive digital setting where people with disabilities can be involved fully in online interactions. As social media dominates today, it is very important that people with vision disabilities, hearing disabilities, cognitive dysfunctioning, or disabilities with motor functioning also be able to get content and involve themselves meaningfully with it. Some of the issues include the lack of alt text for images, biased video captions, difficult interfaces, and navigation problems for screen readers or other assistive technologies [1]. The solutions here involve technical ones, which may add alt text for images, captions for videos, voice commands, and accommodative interfaces. Accessible social media, beyond serving the needs of persons with disabilities, offers wider, inclusive benefits to society: such as diversity, inclusion, and equal participation in the digital realm [2]. Making social media accessible empowers not only users with disabilities but also empowers the world to communicate better, reduces social frictions, and creates possibilities for economic value in doing so for all users.



1.2 Research Aim

The study's aim is to examine the methods social media platforms as well as applications can be made accessible for individuals with disabilities and also to explore how accessibility profits both society as a whole and the individuals with disabilities.

Research Objectives

- To determine the key issues dealt by individuals with disabilities when utilising social media platforms as well as applications.
- To assess the present accessibility features provided by famous social media platforms.
- To examine these accessibility features' effectiveness in upgrading user experience for individuals with disabilities.
- To analyze the potential economic and social advantages of accessible social media for the people with disabilities.
- To evaluate the broader societal advantages of making platforms of social media more inclusive.
- To suggest best practices and solutions for upgrading the social media platforms accessibility, addressing both design and technical challenges.

1.3 Significance

Multifaceted importance brings in grounds of both social justice and practical usability in terms of researching accessibility of social media platforms and applications. In the modern world, social media has all grown to become a very important tool of communication, where self-expression, information sharing, and community building occur. For a person with disabilities, exclusion from such important social networks can easily contribute to the lack of accessibility in those platforms which are, in turn, denying connections to information and full participation in society [3]. In that regard, understanding how best to enhance accessibility on such platforms becomes highly crucial in encouraging inclusive participation by them in the digital landscape.

Also, making social networking accessible has not only helped the people with disabilities but also brought significant enrichment to the experiences of the masses. Some features, like text-to-speech, captions, and screen readers, can enable platforms to be usable by everyone, including older adults or users with temporary impairments. Focusing on inclusive design will help developers create applications that appropriately accommodate the divergent user needs, thus increasing their reach and effectiveness [4]. Through this, a culture of empathy and awareness is encouraged, thus underlining the fact that accessibility has not been merely a specialty concern but a foundation in product design more so related to the broad scope of user experience.

While the benefits are many, there are numerous challenges that need to be overcome in order to provide accessibility to social media. The problems include developers and organizations without full awareness of accessibility standards, complexities when implementing inclusive design, and the need for ongoing user testing on diverse populations. The rapid development of technology can happen at a pace faster than the attempts to make platforms accessible, thus far outpacing the creation of new barriers as features evolve [5]. There needs to be a combined effort from all the players involved-including policy, tech companies, and advocacy groups-to make sure accessibility is built into development from day one.



This research is an essential step toward finding a sense of solution and best practice in creating accessible social media environments [6]. Successful case studies and user feedback can be used as a foundation for recommendation to platforms on how to change their strategies by adopting universal design, regularly conducting accessibility audits, and engaging with users with disabilities during the design process. Social media accessibility essentially benefits the person with disability, and it also brings a more connected, informed, and inclusive society that benefits everybody, allowing for diverse interactions as well as points of view.

II. LITERATURE REVIEW

The review of literature deals with issues of design, compatibility, and content accessibility for people with disabilities in using social media platforms. In addition, it assesses the current efforts of social media companies on integrating accessibility features. It then analyzes the effectiveness of the features implemented for the betterment of user experience for people with disabilities.

2.1 Key Challenges Faced by People with Disabilities When Using Social Media Platforms

Accessibility presents serious challenges to individuals with disabilities in social media platforms and applications. Main among these is inaccessible design. The majority of platforms do not consider well the different needs of users with disabilities, which renders interfaces user-unfriendly. For example, for a person with visual impairment, reading text that is hard to perceive and too small may be a problem [7]. However, in case of screen readers, problems most are related to the lack of proper structure and labelling, which may confuse the screen reader. Another issue is poor compatibility with assistive technologies. Actually, most people with disabilities employ a range of tools, such as screen readers, magnifiers, or voice recognition software, in their real life. Social networking services most probably are not optimized for such tools, which can breach compatibility and therefore users' capabilities to cooperate with the content, participate in discussions, or share one's own experiences [8].

Another very important issue is content accessibility. Most of the multimedia created and shared content on social networks, like photographs or videos, contain insufficient alternative text (alt text) or no captions at all. Videos are not accessible to users with hearing impairments because they don't have subtitles, whereas users with visual impairments cannot comprehend audio context due to a lack of accurate descriptive text. This is further compounded because social media escalates fast, partly premised on fast-moving trends and formats, which can heighten these problems, thus causing an outcast for people with disabilities [9]. Social barriers also prevail, which involves the individuals with disabilities being prevented from socializing due to unfavourable or hostile online interactions. Several online harassment, cyberbullying, and cyber victimization cases occur to users. This disallows persons with disabilities to participate in online communities since they are unable to communicate with others and freely express their ideas.

2.2 Current Accessibility Features Offered by Popular Social Media Platforms

Most social media companies, recognizing the need for inclusion, have introduced numerous accessibility features to improve the experience of a person with a disability using these systems.



For instance, Facebook has added several accessibility features, which include automatic alt text that uses artificial intelligence to describe images using the help of screen readers. Another great feature of Facebook is that it offers text size and contrast adjustment, thus making the platform more accessible to visually impaired users who can easily read the content [10]. Moreover, Twitter has advanced accessibility further by allowing users to upload alt text to the images that they place into their tweets. By making use of this functionality, images are accessible to the visually impaired. It also now allows opportunities for users to caption videos and, as an extension of this, the platform is keen to ensure that the content is accessible to all users with hearing impairments. The company regularly engages with its users with disabilities to capture their perspectives and to continually improve its systems to make it more accessible.

Instagram, being predominantly a site of visual-based content, still provides the alt text for pictures, as well as manual captioning for video streams. This provides an easy avenue for attaching a description to a post through any user, thereby making it accessible to persons with a visual impairment. It also supports screen readers, with some options regarding changing the text size and contrast into different settings that suit the varying needs of users [11]. YouTube is one of the largest video-sharing platforms, automatically captions a large portion of the videos, so that people with hearing impairments can follow along with the information being communicated through speech. The creators are encouraged to upload the manual captions and descriptions so that the content can be as accessible as possible. The provision of keyboard-accessible functionality ensures access for people with disabilities, and screen reader technologies are supported [12]. With these efforts, however, much work remains to be done for social networking to become truly accessible to millions of people around the world who have disabilities. The necessity for further collaboration with accessibility specialists, frequent user feedback, and continuous feature improvement are all crucial to creating a truly inclusive online community. With the advancements in technology that characterize the way the world connects today; social networking platforms must really focus on accessibility so that everyone may participate meaningfully in digital communities [13].

2.3 Effectiveness of Accessibility Features in Improving User Experience for People with Disabilities

Social media has greatly contributed to the usability for individuals with disabilities through the usage of various access features. For instance, even though alt text can be added to images and also captions are offered for videos, visually impaired and hearing-impaired people can as well be able to access information within these visual and audio files that were previously inaccessible [14]. The images and the alt texts provide essential context while enabling visually impaired users to understand the visual elements of posts. With respect to other types of content, one can understand the information through sound if the content is delivered as a caption with a speech turn or if the user has hearing difficulty. Such features support not only the inclusion of individuals with disabilities but also a greater feeling of belonging as people with disabilities are able to be a part of discussions and convey their opinions. Of course, though, the effectiveness of these features depends on their implementation as well as users' awareness of them [15]. For people with disabilities to successfully employ these features social media portals need to further



improve and promote them and also educate users about their availability and how to correctly use them.

III. POTENTIAL SOCIAL AND ECONOMIC BENEFITS OF ACCESSIBLE SOCIAL MEDIA FOR INDIVIDUALS WITH DISABILITIES

Accessible media platforms offer significant social and economic benefits for people with disabilities. Socially, because they make it possible for these people to access communication, share their experiences, and build communities, these platforms reduce isolation and improve mental well-being. The connection of different users of accessible social media platforms will help advocate for disability rights, share resources, and so on, which will translate into a greater sense of community [16]. Economically, it provides an opportunity that is both new and accessible for jobs and enterprise development. This way, the platform offers its members the space to display their skills, share such information with potential employers, and secure freelance opportunities as a whole due to the networking it fosters on these platforms. This increased visibility and participation for persons with disabilities increase their employability and economic independence; thereby, it provides a more inclusive and diversified workforce [17].

IV. BROADER SOCIETAL BENEFITS OF MAKING SOCIAL MEDIA PLATFORMS MORE INCLUSIVE

The social benefits of making social media more inclusive extend to the broader community and society in general. In an inclusive digital environment, that diverse discussions and voices bring about, online content improves in quality, as diverse stands motivate diverse perspectives and voices to be brought forth and shared. Such diversity may therefore help break common stereotypes and misunderstandings with regard to disability, thus increasing public awareness and acceptance [18]. Consequently, inclusive social media act as a tool towards influencing social change by raising the voice for true advocacy on disability rights, among others, and making the society balanced. It makes it possible for social norms to become even better by giving everyone an equal chance to contribute regardless of their ability.

V. SOLUTIONS AND BEST PRACTICES FOR ENHANCING THE ACCESSIBILITY OF SOCIAL MEDIA PLATFORMS

Technical and design best practices are the key to making social media easier to access. In this regard, first, the universal design principles shall be enforced in such a manner that accessibility becomes an intrinsic part of the website's designing process and not something that has been included later on. These would include customizable options such as text size and colour contrast, with layout adjustments that could also cater to varying needs. In addition, developers and designers working on social media platforms should be subjected to regular training and awareness programs for maintenance and accessibility in accordance with the accessibility



standards prevalent at the time of development [19]. Moreover, user testing by people with disabilities is a necessity because, through this, they would gather certain pieces of feedback about which features do not work as expected and what changes should be made. In fact, partnering with disability advocacy groups can be fruitful for the platforms in finding insightful guidance and advice on developing accessibility functionalities that meet the needs of users with disabilities. Thus, by dwelling on such strategies, social media networking sites would be fostering an inclusive as well as accessible digital space for everyone.

VI. THEORETICAL FRAMEWORKS

6.1 Technology Acceptance Model (TAM)

The Technology Acceptance Model relates to the research concerned with making social media platforms accessible through the critical factors of perceived ease of use and perceived usefulness in encouraging the adoption of accessibility features among users with disabilities [20]. Whenever these platforms become amenable with user-friendly design and effective tools for accessibility, users with disabilities tend to perceive them as helpful and easy to navigate. This acceptance increases their usage in ways that enable such users to take full part in online communities [21]. With improved accessibility, the user experience for people with disabilities improves, and it makes society more inclusive, therefore leading to a better outcome for all through diverse perspectives and richer interactions within the digital landscape. To help overcome accessibility challenges, TAM can be applied in terms of such elements as intuitive design and raising awareness of the available features to help provide practical, empowering solutions for individuals and the global community [22].

VII. CONCLUSION

- It is concluded that the focus on making social media more accessible to people with disabilities benefits both the individual and society as a whole.
- Inclusive design provides a wide range of economic and social benefits to all users, including greater participation and awareness, which would lead to more social change, and economic and social advantage to the individual, as well as the wider community.

REFERENCES

1. Altinay, Z., Saner, T., Bahçelerli, N.M. and Altinay, F., 2016. The role of social media tools: accessible tourism for disabled citizens. *Journal of Educational Technology & Society*, 19(1), pp.89-99.
2. Ellis, K. and Kent, M. eds., 2016. *Disability and social media: Global perspectives*. Taylor & Francis.
3. Raja, D.S., 2016. Bridging the disability divide through digital technologies. Background paper for the World Development report.



4. McMillen, R. and Alter, F., 2017. Social media, social inclusion, and museum disability access. *Museums & Social Issues*, 12(2), pp.115-125.
5. Manzoor, M. and Vimarlund, V., 2018. Digital technologies for social inclusion of individuals with disabilities. *Health and technology*, 8(5), pp.377-390.
6. Jones, M., Morris, J. and Deruyter, F., 2018. Mobile healthcare and people with disabilities: current state and future needs. *International journal of environmental research and public health*, 15(3), p.515.
7. Wang, W., Wu, Y.C.J., Yuan, C.H., Xiong, H. and Liu, W.J., 2017. Use of social media in uncovering information services for people with disabilities in China. *International Review of Research in Open and Distributed Learning*, 18(1), pp.65-83.
8. Baylor, A., Bircanin, F., Sitbon, L., Ploderer, B., Koplick, S. and Brereton, M., 2018, December. Characterizing participation across social media sites amongst young adults with intellectual disability. In *Proceedings of the 30th Australian Conference on Computer-Human Interaction* (pp. 113-122).
9. Anderson, K.E., 2017. Getting acquainted with social networks and apps: Social Media in 2017. *Library Hi Tech News*, 34(10), pp.1-6.
10. Thompson, S., 2018. Mobile technology and inclusion of persons with disabilities. *K4D Emerging Issues Report*. Brighton, UK: Institute of Development Studies, pp.1-29.
11. Shpigelman, C.N., 2018. Leveraging social capital of individuals with intellectual disabilities through participation on Facebook. *Journal of Applied Research in Intellectual Disabilities*, 31(1), pp.e79-e91.
12. Zhao, Y., Wu, S., Reynolds, L. and Azenkot, S., 2018, April. A face recognition application for people with visual impairments: Understanding use beyond the lab. In *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems* (pp. 1-14).
13. Zhao, Y., Wu, S., Reynolds, L. and Azenkot, S., 2018, April. A face recognition application for people with visual impairments: Understanding use beyond the lab. In *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems* (pp. 1-14).
14. Abdallah, E.E. and Fayyumi, E., 2016. Assistive technology for deaf people based on android platform. *Procedia Computer Science*, 94, pp.295-301.
15. Dobransky, K. and Hargittai, E., 2016. Unrealized potential: Exploring the digital disability divide. *Poetics*, 58, pp.18-28.
16. Ashraf, M.M., Hasan, N., Lewis, L., Hasan, M.R. and Ray, P., 2016. A systematic literature review of the application of information communication technology for visually impaired people. *International Journal of Disability Management*, 11, p.e6.
17. Roberts, M., Callahan, L. and O'Leary, C., 2017. Social media: A path to health literacy. *Information Services & Use*, 37(2), pp.177-187.
18. Pradhan, A., Mehta, K. and Findlater, L., 2018, April. "Accessibility Came by Accident" Use of Voice-Controlled Intelligent Personal Assistants by People with Disabilities. In *Proceedings of the 2018 CHI Conference on human factors in computing systems* (pp. 1-13).
19. MacLeod, H., Bennett, C.L., Morris, M.R. and Cutrell, E., 2017, May. Understanding blind people's experiences with computer-generated captions of social media images.



In proceedings of the 2017 CHI conference on human factors in computing systems (pp. 5988-5999).

20. Rahimi, B., Nadri, H., Afshar, H.L. and Timpka, T., 2018. A systematic review of the technology acceptance model in health informatics. *Applied clinical informatics*, 9(03), pp.604-634.
21. Ibrahim, R., Leng, N.S., Yusoff, R.C.M., Samy, G.N., Masrom, S. and Rizman, Z.I., 2017. E-learning acceptance based on technology acceptance model (TAM). *Journal of Fundamental and Applied Sciences*, 9(4S), pp.871-889.
22. Ajibade, P., 2018. Technology acceptance model limitations and criticisms: Exploring the practical applications and use in technology-related studies, mixed-method, and qualitative researches. *Library Philosophy and Practice*, 9.