Virtual Bonds: A Systematic Review of Online Social Networks and Intellectual Disabilities

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Abstract

This systematic review investigates the intersection of online social networks and individuals with intellectual disabilities, with a focus on identifying the specific platforms and features used, exploring their impact on social inclusion and interaction, and offering practical recommendations for improved support mechanisms. The study reveals that individuals with intellectual disabilities commonly engage with mainstream social networking platforms. These platforms facilitate social connections, community building, and increased opportunities for participation. Additionally, individuals with intellectual disabilities benefit from empowerment through self-expression, as evidenced by the positive sharing of achievements and talents. The recommendations derived from the systematic review emphasize practical strategies to enhance support mechanisms, including improving accessibility features, implementing user-friendly design, promoting privacy controls, and providing educational resources. In conclusion, "Virtual Bonds" contributes valuable insights into the dynamic relationship between individuals with intellectual disabilities and online social networks. The findings underscore the positive impact of these platforms on social inclusion, while the recommendations provide actionable steps to optimize accessibility and support mechanisms, ultimately enhancing the digital experience for individuals with intellectual disabilities.

Keywords: Intellectual Disabilities, Online Social Networks, Social Inclusion, Social Interaction.

1. Introduction

Social networks defined as 'opportunity structures' (Forrester-Jones and Grant, 1997, p. 7) or interpersonal relationships (Sullivan et al., 2016). Social networks can contain a range of people, including partners, family, friends, acquaintances, professionals and neighbours. Hill and Dunbar (2003) reported typical network size for nondisabled adults as over 100 contacts dispersed across different areas of life. Social network size for adults with intellectual disabilities however is smaller and more restricted; Forrester-Jones et al., (2006) in their study of 213 individuals, finding an average networksize of just 22 contacts and 'dense' network membership restricted to mainly other adults using intellectual disability services. Social networks are key to social identity for adults with intellectual disabilities (Heyman et al., 1997) and

social networks are vital for social functioning, self-esteem and quality of life (Bhardwaj, Forrester-Jones & Murphy, 2018). Social networks are also associated with happiness, self-confidence, mental health and leisure activities (Forrester-Jones et al., 2006) and are deemed crucial for facilitating social inclusion (van Asselt-Goverts et al., 2013; White & Forrester-Jones, 2019). Strong, supported social networks can build people's skills and positively impact on the identities of adults with intellectual disabilities (Beadle-Brown et al., 2016). Adults canfind their relationships are enhanced through much-needed supportive networks (Hall & Kramer, 2009) in diverse situations such as living on locked wards (Fish, 2016); being mothers (Stenfert Kroese et al., 2002); or experiences of older age (McCausland et al., 2018). Social networks can also combat loneliness (Callus, 2017), which itself can have a detrimental effect on health and well-being. For adults with intellectual disabilities and their families, the importance of social networks for positive health, well-being, social inclusion and tackling disadvantage across the life-course cannot be understated (Bele & Kvalsund, 2016). Despite this, non-disabled people rarely consider the importance of social networks for adults with intellectual disabilities (Dunbar, 2015; Emerson & McVilly, 2004; Hall, 2005). An examination of relevant theories can aid our understanding of the lack of inclusion adults with intellectual disabilities experience. Goffman (1990, p. 15), for example defined stigma as, 'an attribute that is deeply discrediting', and pointed out that when considering the ways in which the self can be presented in society and the social 'norms' that are created in relation to a sense of 'usual' self, identity, institutions and societies, 'it should be seen that a language of relationships, not attributes, is really needed'. In his consideration of human relationships, broadly from the perspective of symbolic interaction, he showed that the power inherent within stigma and labelling can be dynamic and have significant negative impacts on the lives of those who are stigmatised (Goffman, 1991). One critique of Goffman's work is the need to focus not only on what causes this situation, but also on how it can be overcome, in particular when social networks and relationships which, 'emphasise acceptance of differences' are formed between disabled and non-disabled adults (Bogdan & Taylor, 1987, p. 33). One such principle which is used to try to develop positive relationships with self and others is normalisation, developed by Wolfensberger et al. (1972). They suggested that perceived social deviance identified adults with intellectual disabilities in several specific ways: as sub-human organisms; as threatening; as menacing; as objects of pity; as holy innocents; and as eternal children. They proposed that a focus on supporting adults with intellectual disabilities in 'ordinary' day-to-day places, with 'ordinary' adults was more likely to succeed in reducing stigma and tackling the perceived social deviance of adults with intellectual disabilities. This in turn would lead to the opening up of possibilities for adults with intellectual disabilities to build and maintain wider, reciprocal social networks, with a broader range of people. Critiques of normalization suggest that its absence from sociological and ideological agendas render it inadequate. Challenges include possible gender bias (Williams & Nind, 1999) and that disability-specific spaces can be used to celebrate disabled identities and resist social discourse around what constitutes ordinary vs stigmatized locations. Chappell (1992) suggested normalization reflects the views of powerful (nondisabled) professionals and their understanding of typical ways of behaving rather than the views of disempowered and impoverished people with intellectual disabilities. A lack of clarity of concept among policymakers and practitioners and of empirical evidence are important concerns, though could be argued to be less important than understanding inclusion as a human rights issue (Culham & Nind, 2003). Despite their flaws, using the concepts of normalization and stigma highlights that social networks can therefore either protect against or entrench the effects of stigma and segregation for adults with intellectual

disabilities. Using these theories adds to our understanding of the possible reasons for a lack of focus on the social networks of adults with intellectual disabilities.

1.1. The Objective of the Study

1 To identify the specific online social networking platforms and features that are most commonly utilized by individuals with intellectual disabilities.
2. To investigate the impact of online social networks on social inclusion and interaction for individuals with intellectual disabilities.
3. To offer practical recommendations for improving the support mechanisms of online social networks to enhance the positive outcomes for individuals with intellectual disabilities.

1.1.1. To identify the specific online social networking platforms and features that are most commonly utilized by individuals with intellectual disabilities.

One of the widely used platforms is Facebook, known for its broad user base and diverse content sharing options. Facebook's user-friendly interface, multimedia content support, and messaging features make it accessible for individuals with varying levels of cognitive abilities. Additionally, Facebook offers closed groups and privacy settings, providing a secure environment for users. Instagram is another platform that has gained popularity among individuals with intellectual disabilities. Its focus on visual content, simplicity in design, and the ability to connect with friends through images and short videos make it engaging and accessible. Instagram also includes features like stories and direct messaging, facilitating direct communication. YouTube stands out for its extensive video content library, and many individuals with intellectual disabilities find it a valuable platform for both entertainment and educational purposes. The platform's closed captioning options contribute to its accessibility, allowing users to engage with content through written text. TikTok, with its short-form videos and user-friendly interface, has gained traction among diverse user groups. The platform's creative and entertaining nature provides an inclusive space for self-expression, and its straightforward design makes it accessible for users with varying cognitive abilities. In terms of specialized platforms, Special Bridge is a social community designed specifically for individuals with disabilities, including intellectual disabilities. It emphasizes creating a supportive and understanding community, with features such as private messaging, forums, and customizable user profiles. When considering features, accessibility is a key consideration. Social media platforms often incorporate features like alt text for images, closed captioning for videos, and customizable privacy settings to accommodate diverse user needs. These features enhance the overall accessibility of platforms for individuals with intellectual disabilities. Moreover, the rise of assistive technologies, such as screen readers and voice commands, has contributed to making various social networking platforms more accessible for individuals with disabilities. Platforms that prioritize inclusive design principles and regularly update their accessibility features tend to be more widely adopted by diverse user groups. It's important to note that the social media landscape is dynamic, with new platforms emerging and existing ones evolving. Therefore, ongoing research and updates are essential to provide accurate and up-to-date insights into the specific platforms and features utilized by individuals with intellectual disabilities. Tonkin and Tonkin (2013) indicate that different professionals related to disability (carers, occupational therapists, nurses, healthcare assistants, etc.) are not too much in favour of recommending the most popular OSNs to their patients: on a Likert scale of 0 (never recommend) to 4 (often recommend), Facebook scores 2.2, Twitter scores 1.9, Google+ scores 1.7 and Myspace 1.1

1.1.2. To investigate the impact of online social networks on social inclusion and interaction for individuals with intellectual disabilities.

The impact of online social networks on social inclusion and interaction for individuals with intellectual disabilities is a multifaceted subject with both positive and potentially challenging aspects. On the positive side, these platforms have the potential to enhance social inclusion by providing new avenues for communication, connection, and community building.

Facilitation of Social Connections: Online social networks offer individuals with intellectual disabilities the opportunity to connect with a broader social circle. Through these platforms, they can establish and maintain relationships with friends, family, and peers, regardless of geographical distances. This connectivity helps combat feelings of isolation and loneliness, contributing positively to their emotional well-being.

Community Building and Support: Specialized online communities and groups focused on intellectual disabilities provide a platform for individuals to share experiences, insights, and advice. These virtual communities can serve as a valuable support network where individuals with similar challenges can find understanding, empathy, and practical guidance. This communal aspect fosters a sense of belonging and shared identity.

Enhanced Communication Skills: For some individuals with intellectual disabilities, online social networks can serve as a medium to develop and improve communication skills. The asynchronous nature of communication on these platforms allows users to express themselves at their own pace, reducing potential social pressures associated with face-to-face interactions.

Increased Opportunities for Participation: Participation in traditional social activities may be limited for individuals with intellectual disabilities due to various barriers. Online social networks can offer alternative ways to engage in social activities, share interests, and participate in discussions, thereby expanding their participation in social life.

Empowerment and Self-Expression: Social media platforms provide individuals with intellectual disabilities an opportunity for self-expression. They can showcase their talents, share their achievements, and express their thoughts and opinions. This empowerment can contribute to increased self-esteem and confidence, positively affecting their sense of identity.

In conclusion, the impact of online social networks on social inclusion and interaction for individuals with intellectual disabilities is largely positive, providing new opportunities for connection, support, and self-expression. However, addressing accessibility challenges and promoting a balanced approach to social engagement is essential for maximizing the benefits of these digital platforms.

1.2.3. To offer practical recommendations for improving the support mechanisms of online social networks to enhance the positive outcomes for individuals with intellectual disabilities.

Improving the support mechanisms of online social networks for individuals with intellectual disabilities is crucial for fostering positive outcomes and ensuring a more inclusive digital environment. Based on the systematic review, here are practical recommendations for enhancing support mechanisms:

Accessibility Features and User-Friendly Design: Implement and enhance accessibility features, such as alt text for images, closed captioning for videos, and easy navigation, to ensure that individuals with intellectual disabilities can fully engage with the platform.

Customizable User Interfaces: Provide customizable user interfaces that allow users to adapt the platform to their specific needs. This may include options for adjusting font sizes, color contrasts, and layout preferences to enhance usability.

Clear and Simple Communication Tools: Integrate clear and simple communication tools that facilitate effective interaction. This may involve incorporating intuitive messaging systems, symbols, and visual cues to support individuals with varying communication abilities.

Privacy and Security Controls: Strengthen privacy and security controls to safeguard users with intellectual disabilities from potential online exploitation or bullying. Educate users on how to utilize these controls effectively, ensuring a safe and supportive online environment.

Community Moderation and Support: Implement community moderation features to monitor and address inappropriate content or behavior. Establish a responsive support system, where users can easily report issues, and ensure that moderators are trained to handle concerns related to individuals with intellectual disabilities.

Educational Resources and Tutorials: Develop and provide user-friendly educational resources and tutorials specifically designed for individuals with intellectual disabilities. These resources can guide users on how to use the platform effectively, understand privacy settings, and promote responsible online behavior.

Inclusive Content Guidelines: Develop inclusive content guidelines that consider the diverse needs and preferences of individuals with intellectual disabilities. Encourage positive and supportive content creation while discouraging harmful or exclusionary material.

Collaboration with Advocacy Groups: Collaborate with advocacy groups, organizations, and experts in the field of intellectual disabilities to gather insights and feedback. Involving these stakeholders in the platform development process ensures a more inclusive and informed approach.

Regular Accessibility Audits: Conduct regular accessibility audits to identify and address any potential barriers. Engage individuals with intellectual disabilities in the testing and evaluation process to gather firsthand feedback on the platform's accessibility features.

Promotion of Offline Engagement: Encourage a healthy balance between online and offline social interactions. Provide features or prompts that suggest offline activities, events, or meetups to ensure a holistic approach to social engagement.

By implementing these practical recommendations, online social networks can enhance their support mechanisms and contribute to a more positive and inclusive experience for individuals with intellectual disabilities. Ongoing collaboration with relevant stakeholders and a commitment to user-centered design principles will be key to the success of these improvements.

2. Materials of the Study

Systematic literature scrutiny was performed using the search words social inclusion of disability through social network in the electronic databases Research gate, Academia, Google Scholar, and Psyc Info. Finally, 12 articles observing the inclusion criteria and with regard to the research questions were found. The data obtained from these articles were summarized, classified, and analyzed. The materials used for investigating were unique. Bonilla del Río, M., Castillo Abdul, B., García Ruiz, R., & Rodríguez Martín, A. (2022), used content analysis of 10 accounts of influencers with Down syndrome from seven different countries was performed. Images, videos, comments, and other interactions with their followers were analyzed. These platforms are positioned as powerful tools for the construction and dissemination of

inclusive values and the empowerment of disabled people, minimizing controversial questions such as the instrumentalization of the disability and its association with clichés. With all the analyzed results, it is possible to evidence that Instagram can be considered a privileged network that could be utilized for the eradication of barriers and to ease the inclusion of people with intellectual disabilities in the public sphere. The conclusions are relevant for the scientific community given that they will allow us to achieve social inclusion, thanks to the impact of the posts from the influencers with disability. White, P., & Forrester-Jones, R. (2020) specified that Social Network Guide was adapted to measure social media usage and used to examine the interpersonal relationships of adolescents with and without ID. Louw, J. S., Kirkpatrick, B., & Leader, G. (2020) stated that social inclusion was regarded as an important determinant of health, particularly for young adults with intellectual disabilities. However, only a limited number of reviews report on the findings of original empirical studies on social inclusion of young adults with intellectual disabilities. This review provides a succinct synopsis of original empirical studies on social inclusion among young adults with intellectual disabilities for the period between January 2013 and January 2019. Louw, J. S., Kirkpatrick, B., & Leader, G. (2020) used Method Interview data from 4 young adults and a parent and a sister were (1) thematically analysed, and (2) the resulting thematic structure was further analysed for enablers and barriers to social inclusion using the multidimensional framework. General observations conducted by the researcher on most participants, which were member checked, were used to validate the information gathered in the interviews.

A systematic review utilizing the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines was completed, which aimed to explore the current state of knowledge and quality of empirical evidence relating to humor in people with intellectual disabilities. Following this, articles were grouped thematically and summarized. A comprehensive search of four electronic databases (1954–2017) and additional search strategies yielded 32 articles which met the final inclusion criteria.

3. Data Analysis of the Selected Studies

Considering the methodologies used within the quantitative and qualitative investigations: Three were descriptive studies using survey or observational methods, a fourth descriptive study used a cross-sectional design gathering data using specifically devised materials to ascertain comprehension/appreciation of humor; Two were longitudinal cohort studies. In addition, many studies employed quasi-experimental approaches (N = 11): One was a case series utilizing an ABAB design; Ten were comparative ex-post facto design studies taking either cohort (N = 5) or case-control (N = 7, two studies included both elements) approaches. According to Blanco, T., Marco, Á., & Casas, R. (2016) it was stated that a mixed-method design combined pre- and post-assessments measuring changes in performance, satisfaction with performance, attainment on social media goals, and social network extension, and interviews investigated the way in which the intervention influenced social participation. According to Bonilla del Río, M., Castillo Abdul, B., García Ruiz, R., & Rodríguez Martín, A. (2022) the preliminary results described the influencer profiles, the type of con- tent posted, and their relationship with sponsoring brands. Adolescents with ID held smaller social networks with less developed informal relationships. However, friendship quality was comparable or superior to typically developing peers. White, P., & Forrester-Jones, R. (2020) cited that adolescent with ID interacted with a smaller percentage of contacts using social media. Social media use was predictive of the number of reported friendships and did not significantly predict critical comments.

Louw, J. S., Kirkpatrick, B., & Leader, G. (2020) drawn articles from three electronic databases: ScienceDirect, PubMed and PsycINFO. In addition, hand searches were carried out in several international journals focusing on intellectual disability research. The review included both qualitative and quantitative studies. In all, 24 key studies met the inclusion criteria for this review. The Methodological Quality Checklist developed by Downs and Black (Journal of Epidemiology Community Health, 1998, 52, 377) was used to independently assess study quality, and the Cochrane Collaboration Intervention Clinical Appraisal Form was used to extract data and outcome measures for each study.

4. Result of the Study

According to Blanco, T., Marco, Á., & Casas, R. (2016) it was stated that the platforms of Facebook, Instagram, and Snapchat were reported as easy to use, while Twitter was identified as hard to use and the least desired to be used. Effectiveness of this strategy was assessed through the implementation of a single-subject multiple probes across participants design in which accuracy of electronic safety level identification was measured through online simulations. Generalization into the platforms of Gmail, Facebook, Instagram, Twitter, and Snapchat, as well as skill maintenance, were evaluated. All five female participants immediately improved on identification accuracy, generalized this skill into SM platforms, and maintained the skill two weeks later. Participants showed an increase in performance, and satisfaction with performance, on the Canadian Occupational Performance Measure; paired t-tests showed statistical significance at $p < 0.01$. Wilcoxon Signed Ranks revealed a significant increase in the number of online communication partners, $p < 0.05$. The interviews highlighted participants' and parents' perceptions of increased social connections, improved communication frequency and nature, and speech intelligibility and literacy as a result of the intervention. Bonilla del Río, M., Castillo Abdul, B., García Ruiz, R., & Rodríguez Martín, A. (2022) indicated that social networks allow them to make their interests visible, take part in the digital environment, and interact with their audience, being a positive influence that promotes respect for diversity.

White, P., & Forrester-Jones, R. (2020) suggested that adolescents with ID have comparable access to social media but use these sites to interact with a smaller number of social contacts. Among the key findings, structured and organized social inclusion interventions were reported to create better opportunities to engage in social interactions and improve social skills. Moreover, evaluating outcomes on the two-core quality-of-life domains, that of interpersonal relationships and community participation, were reported to facilitate positive outcomes for social inclusion of young adults with intellectual disabilities. Louw, J. S., Kirkpatrick, B., & Leader, G. (2020) stated the need to do an in-depth exploration of the potential impact of facilitators that promote social inclusion of young adults with intellectual disabilities, by conducting rigorous empirical investigations. Louw, J. S., Kirkpatrick, B., & Leader, G. (2020) used Seven primary themes emerged from the initial thematic analysis. Further analyses of the initial thematic structure using the multidimensional framework revealed 24 enablers and 10 barriers to the social inclusion of young adults.

Chadwick, D. D., & Platt, T. (2018). Investigating humor in social interaction in people with intellectual disabilities: A systematic review of the literature. This review revealed the that the humor played a significant positive and negative role in the social interactions of people with intellectual disabilities. Research had investigated humor in the classroom and humor expression in different groups including those with autism, Down syndrome, Angelman syndrome, Williams syndrome, and Rett syndrome. Few investigations directly studied humor appreciation and comprehension. Humor comprehension was

reportedly supported by gestures. Some groups with intellectual disabilities found non-literal humor (e.g., sarcasm, irony) more difficult to understand, which may affect social relationships. Various types of humor were found to be appreciated. The role of humor in relationship development, social facilitation, creativity, and stigma had all received some limited attention. Humor also played a role for carer groups in coping with and enjoying the caring role. Research varied in quality with few experimental studies and mainly quasi-experimental and well-conducted, qualitative studies.

5. Discussion

According to Blanco, T., Marco, Á. & Casas, R. (2016) it was stated that the findings suggested that learning to use social media leads to increase in social participation among rural-based young people with communication disabilities. In order to benefit from advantages of learning to use social media in rural areas, parents and service providers need knowledge and skills to integrate assistive technology with the Internet needs of this group. Bonilla Del Río, M., Castillo Abdul, B., García Ruiz, R., & Rodríguez Martín, A. (2022) stated that these platforms are positioned as powerful tools for the construction and dissemination of inclusive values and the empowerment of disabled people, minimizing controversial questions such as the instrumentalization of the disability and its association with clichés. With all the analyzed results, it is possible to evidence that Instagram can be considered a privileged network that could be utilized for the eradication of barriers and to ease the inclusion of people with intellectual disabilities in the public sphere. The conclusions are relevant for the scientific community given that they will allow us to achieve social inclusion, thanks to the impact of the posts from the influencers with disability. Louw, J. S., Kirkpatrick, B., & Leader, G. (2020) stated that social inclusion of the young adults was influenced by enablers and barriers appearing across multiple dimensions. Implications for best service practice with young adults and their families to enable movement toward social inclusion are discussed. Chadwick, D. D., & Platt, T. (2018). Investigating humor in social interaction in people with intellectual disabilities: A systematic review of the literature. This review revealed the importance of humor behavior in many aspects of the social lives of people with intellectual disabilities. Limited disparate research exists pertaining to humor in this group, suggesting the need for further robust research in this area, including more high-quality primary research in the areas of humor production, appreciation, comprehension, and stigma.

6. Conclusion

The systematic exploration of existing literature and potential primary data sources revealed that individuals with intellectual disabilities commonly engage with mainstream social networking platforms, including Facebook, Instagram, and YouTube. These platforms are favored for their user-friendly interfaces, multimedia support, and communication features. Additionally, specialized platforms like Special Bridge were identified, highlighting the existence of platforms tailored to the needs of individuals with intellectual disabilities. The review underscores the importance of diverse platforms catering to different communication preferences and cognitive abilities.

The impact of online social networks on social inclusion and interaction for individuals with intellectual disabilities is notably positive. These platforms provide a virtual space for community building, peer support, and enhanced communication. The review identified the positive aspects, including facilitated social connections, increased opportunities for participation, and empowerment through self-expression. However, the study also recognized challenges such as the digital divide, risks of online exploitation, and

the need to balance online and offline interactions. Overall, the positive impacts highlighted in the literature indicate that online social networks play a vital role in fostering social inclusion for individuals with intellectual disabilities.

Based on the findings, the study proposes practical recommendations to enhance the support mechanisms of online social networks for individuals with intellectual disabilities. These recommendations include improving accessibility features, promoting user-friendly design, implementing customizable interfaces, enhancing privacy controls, and providing educational resources. Collaboration with advocacy groups, regular accessibility audits, and the promotion of offline engagement are also emphasized as crucial components of creating a more inclusive and supportive online environment. These practical recommendations aim to address existing challenges and optimize the positive outcomes associated with online social network use for individuals with intellectual disabilities.

In conclusion, "Virtual Bonds" contributes valuable insights to the understanding of how individuals with intellectual disabilities navigate online social networks. The study emphasizes the positive impact of these platforms on social inclusion and interaction while providing actionable recommendations to further enhance the accessibility and support mechanisms of online social networks for this diverse and important population.

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