

Technology Use for Social Connectedness

Exploring the Experiences of People with Intellectual and Developmental Disabilities, Family Members, and Professionals

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Executive Summary

People with intellectual and developmental disabilities (IDD) have the potential to benefit from wireless technologies and social networking opportunities facilitated through these technologies. People with IDD, however, are often excluded from technology use and online environments. Our research sought to explore how people with IDD use social networking and wireless technologies to enhance their social connectedness and to illuminate barriers they experience to inform the future design and development of accessible technology.

Introduction and Background

Social networking platforms and the mobile, wireless, and wearable technologies used to access them are becoming more widely used in the general population. People with disabilities, however, have the lowest rates of technology use (Kaye, 2000). People with IDD, specifically, are often excluded from using wireless technologies and participating in online activities due to financial barriers and cognitive inaccessibility (Stock, Davies, Wehmeyer, Palmer, 2008). The exclusion of people with IDD from technology use and online environments is alarming, as this population has the potential to use technology to maximize their independence and social interaction (Kaye, 2000).

Social interaction helps individuals with IDD build meaningful relationships and can improve their quality of life (Carter et al., 2010). People with IDD often have limited social networks (Davies, Stock, King, Brown, Wehmeyer, and Shogren, 2015), but some research has shown that social networking sites like Facebook and Twitter can facilitate interaction through the posting of comments, messaging, browsing profiles, and 'liking' photos and posts (Wilson, Gosling, & Graham, 2012). Use of social networking sites is rapidly expanding through the use of wireless technologies to access them, but people with IDD are at risk for exclusion because these sites and technologies are not often designed for cognitive access (Davies et al., 2015).

Approach

The aim of this research was to explore how wireless technology tools and software applications help people with IDD socially connect, and how people with IDD and those that support them perceive the usefulness of such tools within this population. To address this goal, a series of focus groups was conducted with adults with IDD, family members of adults with IDD, and professionals who work with people with IDD (e.g., vocational rehabilitation counselors, certified job coaches, transition coordinators in K-12 schools). Our research team coded and analyzed the focus group data following a qualitative descriptive approach.

Findings

Focus group participants included 33 individuals: people with IDD ($n = 15$), parents of people with IDD ($n = 8$), and professionals ($n = 10$). Participants ranged in age from 17 to 63 ($M = 40$). Participants varied in age, sex, occupation, employment status, and highest level of education. Six major themes emerged from the data, presented below.

Theme 1: Hardware and Software

Participants described using hardware such as phones, laptops, and Bluetooth headphones, and software such as text messaging, Skype, email, and games, to enhance social connectedness. There was variability in the details about hardware and software participants mentioned. For example, one individual with IDD indicated, "I have Facebook, Instagram, messenger, I text, I send out emails, and I make phone calls. All on my Apple iPhone." However, another individual with IDD mentioned just his "iPhone and mostly [his] iPad."

Theme 2: Accessibility Features

Participants expressed that digital assistants (e.g., Siri, Alexa, Google Assistant) were beneficial in accessing technology for social connectedness. Professionals and individuals with IDD agreed that the speech-to-text function on phones is a useful support for connecting online. An individual with IDD mentioned his own and his colleagues' experiences as an example: "I would say the voice technology. It's very beneficial... because for example, [colleague] has a challenge in his reading and writing. But he doesn't have any issue to text or even to post on Facebook or to do anything, send emails, because he's using the voice technology." Some noted that digital assistants can also present barriers. One parent indicated "[my child] who has cerebral palsy has kind of a speech [issue]. So things like Siri or OK Google can't fully understand him. So I wish that there was something that could remedy that."

Theme 3: Reasons for Connecting Socially

Across the participant groups, keeping up with family and friends was a primary reason for connecting socially. One individual with IDD indicated: "I mostly use Facebook and I have my phone to stay connected with my friends and family. I'm mostly using on Facebook because if a phone doesn't work you need some other way to communicate with them. Like, even [to] send

an emergency message.” Other reasons for connecting involved fitness, safety (e.g., “checking in” with or “following” family members, as multiple parents described) and professional networking. One participant with IDD described having “an actual job interview on Skype.”

Theme 4: Barriers to and Supports for Connectivity

Compatibility issues arose when participants discussed connecting with friends and other communication partners: “It's so many things. When somebody has something different that you don't have, it's so hard to figure it out. But we try, and you can just do Google searches.” Many participants with IDD expressed frustration with not knowing how to use technology and software issues that occur when using technology. “Some may know how to use a device, but they don't know how to fix it altogether,” described one participant with IDD. Finances were the most frequently described barrier. “Seems like the main thing would be cost because if you have no WiFi, that costs, you're not gonna be able to utilize the technology,” explained one participant with IDD. One parent described, “...for the people who need technology, especially for the special needs, everything is very expensive.”

Theme 5: Concerns or Fears About Connectivity

Individuals with IDD expressed fears about breaking devices. One participant described, “I broke my iPhone, I dropped it and it somehow magnetically hit the floor this way you know it was fallin’ this way and the screen completely cracked, you couldn't use it at all.” A majority of concerns were identified by professionals and parents, related safety and privacy. “A lot of parents are really nervous about having people on Snapchat and just the temptation or risk of oversharing or not knowing ...” said one professional. Another professional described the “worst [fear]” as “stalking somebody or... answering too many things that somebody doesn't want you to answer or something. Or sending messages to somebody who doesn't need the information.”

Theme 6: Outcomes from Social Connectedness

Participants described positive and negative outcomes. For example, one parent indicated her daughter experienced increased independence as a result of using some health-related applications. Increased friendship and support was another outcome described: “...just the basic friendship stuff of having a network of people who will help you informally, not because they are required to and not because somebody's gonna pay them to help you, but because they know you as a person, they like you as a friend, or whatever, you know?” said one professional. One speaker with IDD indicated that a negative outcome of increased social connectivity through technology could be missing out on real-world connections: “I think the main effect is that there's not connections anymore where you ask people at certain ages, they may not even remember how to speak on the phone anymore, that kind of connections, while good at other connections I think the balance is missing. Because you're so disconnected as opposed to having the opportunity to connect face to face.”

Current and Future Research

Our findings indicate that wireless technologies and social networking sites are useful for people with IDD to increase their social connectedness; however, there are a number of barriers to consider that may prevent this population from maximizing potential benefits. Our current research can be used to inform researchers and developers about what works well, and what does not, so that hardware and software can be designed with cognitive access in mind. Future research should expose people with IDD to wireless technologies and applications that have more accessibility features or are more universally designed, and measure the impact these technologies have on social connectedness. Future research could explore comparative pre/post designs, with some participants using existing technologies and others using more accessible and universally designed technologies, to demonstrate the effects of technology on social connectedness and related outcomes.

Conclusions

Social networking platforms and the technologies used to access them important to people with IDD. More refined approaches that consider the specific needs of people with IDD, though, are needed. Based on these research findings, we encourage researchers and technology architects to work alongside people with IDD in the design and development of their products. Doing so will allow people with IDD to be fully included in online environments, potentially leading to improvements in their employment, community participation, and overall quality of life.

References

- Carter, E. W., Sisco, L. G., Chung, Y. C., & Stanton-Chapman, T. L. (2010). Peer interactions of students with intellectual disabilities and/or autism: A map of the intervention literature. *Research and Practice for Persons with Severe Disabilities, 35*(3-4), 63-79.
- Davies, D. K., Stock, S. E., King, L. R., Brown, R. B., Wehmeyer, M. L., & Shogren, K. A. (2015). An interface to support independent use of Facebook by people with intellectual disability. *Intellectual and Developmental Disabilities, 53*(1), 30-41.
- Kaye, H. S. (2000). *Computer and Internet use among people with disabilities*. US Department of Education, National Institute on Disability and Rehabilitation Research.
- Stock, S. E., Davies, D. K., Wehmeyer, M. L., & Palmer, S. B. (2008). Evaluation of cognitively accessible software to increase independent access to cellphone technology for people with intellectual disability. *Journal of Intellectual Disability Research, 52*(12), 1155-1164.
- Wilson, R. E., Gosling, S. D., & Graham, L. T. (2012). A review of Facebook research in the social sciences. *Perspectives on Psychological Science, 7*(3), 203-220.