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Online Behaviors of Teenagers on the Autism Spectrum Amelia Anderson and Abigail Phillips

Abstract

The Internet can be a source of connection and support for teenagers on the autism spectrum. This study explores how teenagers on the autism spectrum who identify as library users spend time online by addressing the following research questions: How do teens on the autism spectrum participate in the online environment? And, how do teens on the autism spectrum make sense of social media? Quantitative and qualitative data was analyzed from nine participants, recruited through online discussion forums. Implications suggest a potential role for educators and librarians to offer opportunities and support in creating and building online connections.

Introduction

A wealth of research has explored how teenagers use social media and other online platforms to connect, learn, create, and play (Ahn, 2011; boyd, 2014; Schwartz et al., 2013). In particular, for teenagers on the autism spectrum, the Internet can provide a lifeline of source of information, support, and connection that extends beyond the social norms and conventions required of face-to-face communication (Park, 2019). The Internet allows for a broadened social network, one in which teens are no longer bound to communication within their limited physical community or face-to-face social sphere (boyd, 2014). Teens are sharing content, expressing opinions, and building friendships with peers far outside of their communities and schools through the vehicle of the Internet. However, among those that exist, studies conflict about how teens on the spectrum spend time online. Some suggest that youth on the spectrum use the Internet but largely avoid interactions and engagement through social media (Mazurek, Shattuck, Wagner, & Cooper, 2012). In contrast, studies of adults on the spectrum reveal how members of that population use the Internet to connect and engage (Brownlow, O'Dell, & Rosqvist, 2013; Davidson, 2008). Libraries have the potential to play an integral role in how teens engage and interact online, both in simply providing access to the Internet and through providing education and access to tech materials. In this exploratory study, the researchers investigate how youth on the autism spectrum who identify as library users describe their online lives.

Background

For many teens, social media and other online communities are a means of connection outside of school, home, church, and other domains of daily life (boyd, 2014). Online communities provide youth with an outlet for information seeking, relationship building, identity development, creating and remaking opportunities, and more (Agosto & Hughes-Hassell, 2006; Harlan, Bruce, & Lupton, 2014). Youth are engaging through online platforms to seek support, advice, connection, and exploration outside of their local communities (Agosto & Hughes-Hassell, 2006). Yet, alongside the positive aspects of engagement, the online environment can be destructive. Cyberbullying, trolling, and other types of online harassment are complex issues, occurring on a daily basis, which teens, their parents/caregivers, school administrators, and teachers often find themselves at a loss on how to manage and cope (Hodkinson, 2015; Phillips, 2016).

While there is research focusing on the overall media use of youth on the spectrum, there is limited research specifically examining social media behaviors (Mazurek et al., 2012). What's more, the existing research is dated and, with the quickly evolving world of social media and the speed and frequency of teen engagement, timely and consistent research is needed. Hall (2011) examined social media as a positive alternative communication avenue for students with ASD. In her research, social media platforms provide a "non-threatening, safe place for people with ASD to communicate and interact with other people in which they do not have to be concerned with body language and facial expressions," (pp. 4).

Methodology

To address the gap in literature and need for research, this study addresses the following research questions:

1. How do teens on the autism spectrum participate in the online environment?
2. How do teens on the autism spectrum make sense of social media?

This project employed an online survey that used a mixture of demographic, multiple choice, and open-ended questions to provide teen participants with more opportunity to express themselves in their responses. The survey was imported into Qualtrics, and distributed via an online venue, *Autism Forums: Asperger's & Autism Community*. Participation was limited to teenagers ages 13-18 who live in the United States. The survey remained open for two months, at which point participants were compensated with a \$10 gift card, and then data analysis began. To determine authenticity, the researchers examined the survey responses using SPSS software. From an initial pool of 72 survey responses, responses were narrowed down to nine valid participants. Surveys removed from the response pool for analysis included such responses as multiple attempts from the same IP address, respondents who took significantly less time than predicted to complete the survey (e.g. <90 seconds), and random strings of responses unconnected to the survey questions. After determining validity, the researchers analyzed participant responses using statistical tools within Qualtrics for closed questions, and using open and axial coding for open ended responses. All qualitative data is presented in this paper using the participants' own words, and spelling and grammar have not been corrected.

Findings

Nine teens participated in the full survey. Findings emerged related to online behaviors, going offline, digital lives in general, and their perceptions of social media. These themes are presented next.

Online Behaviors

Participants were asked "What do you do online?" and teens selected all from the list that applied. Nine of nine teens (100% of the total sample), chose "watch streaming TV or videos," followed by eight of nine teens who

selected each of the following: “use social media,” “do work/homework,” and “read about things I’m interested in,” and “play video games.” Seven of nine teens “listen to music,” while six of nine teens “read/send email,” or “instant message/chat,” and five of nine teens selected “create media.” One participant wrote in “porn” in the “other” option.

As noted, all participants chose “watch streaming TV or videos” as something they do online; when asked to choose “out of all of the things you do online, which is your favorite”, “watch streaming TV or videos” was the most popular choice (four of nine teens). Two of nine participants selected “read about things I’m interested in,” and only one of nine selected “email,” “listen to music,” or “create media.” None of the participants chose any of the following as their favorite online activity: “use social media,” work/homework,” “instant message/chat,” or “play video games.”

Participants then ranked what they do online the “most often”: six of nine listed “streaming TV or videos,” five of nine listed “social media,” four each listed “listening to music,” “playing video games,” and “reading about interests.” Two listed “creating media,” and one each listed “instant message,” “email,” and “work/homework.”

Teens were asked to respond in their own words about what conversations they would prefer to have online as opposed to face-to-face. Responses included those that require a “permanent record,” as one teen noted, and in particular those topics that are school related (as reported by two teens). Three teens described a preference for online communication when talking about personal issues such as dating/relationships or “personal problems.” One participant said he or she would rather talk to “friends in real life” online rather than face-to-face. Another teen participant said “most conversations” are preferable to have online rather than face-to-face. And two were adamant that “all conversations” or “Every single one” should be held online rather than face-to-face.

Going Offline

In contrast, teens were asked about the conversations they would rather have face-to-face than online. Two of nine teens mentioned homework, while another two described personal conversations about dating or relationships. One said “anything that is serious, especially with my parents.” One clarified that while there are some conversations he or she would rather have face-to-face, most occurred online as “the majority of my closest friends are long distance.” Notably, three of nine teens said there are no conversations they would rather have face-to-face as opposed to online, with one elaborating: “No as I’m awful around people.” Do teens with ASD ever wish they could just unplug? Six of nine participants said yes. Two elaborated that this was based on feelings: “sometimes I become overwhelmed with everything;” and “sometimes being online makes me feel sad.” One simply noted that, “I think I could be on a little less.” And one teen said, “yes, “but its bloody pointless if everyone around you is ‘plugged in.’” In contrast, three participants did not want to “unplug.” One said they “never think about it.” Another participant stated: “I don’t think anyone [wants to unplug] because we all enjoy the endorphin boosts we get from it.” As for another youth, the Internet has made things better and there is no reason to unplug: “I have uses for technology, and “unplugging” would mean abandoning it and going back to how life was before the internet. Frankly, life before the internet wasn’t great for people like me.” That being said, participants in this study did report giving themselves a break from technology; six of nine responded that they do so at least occasionally.

Digital Lives in General

What excites these teens most about “today’s digital world?” More than half (five of nine) selected “ability to connect with others.” Three of nine selected “the variety of content,” and one participant chose “anytime, anywhere information.” Notably, no participants selected “ability to create media.” Most participants expressed concerns about “today’s digital world,” and selected specific concerns. Three of nine said they had concerns about “seeing poor quality or questionable content,” two of nine had concerns about “amount of digital drama and cyberbullying;” two of nine had concerns about “permanence of my online presence,” and one each had concerns about “protecting my information” or “nothing really.” Finally, teens were asked to describe their digital lives, by filling in the blanks: “my digital life is like __ because__.” Some chose not to answer, while others provided compelling insights: “My digital life is like tomatoes because it can go rotten fast;” “My digital life is like Cake, Too much and you get sick of it;” “My digital life is like a monster because it destroys my parents;” and “My digital life is like that of a celebrity because everything is very carefully curated (I think this is true of everyone).”

Perceptions of Social Media

Reflecting on the open-ended question, “Do you think social media makes the world a better or worse place, why?” more than half of teen participants (five of nine) responded with “better.” Two of these responses elaborated that it helped them communicate and stay in touch: “someone will listen to me,” one said, and another noted that it’s “(b)etter since you can make new friends and stay in contact with far off family members.” Two participants of nine responded that social media makes the world worse, with one elaborating: “Rude people get to be heard more.” Another two participants felt that both or neither statements truly applied, instead responding with, “both - bullying and mean people are easily say bad stuff online, but social media u can connect with lots of people u might not of been able to otherwise;” and “I think it makes the world different, but not better or worse. It makes communication

and collaboration a lot easier, but that does expose the fact that a lot of what we communicate and collaborate about is shitty.” How do these teens feel about themselves after spending time on social media, better or worse? Four of nine teens said “better,” and two of those elaborated that it helped with friendships: “I don't spend much time on social media, and when I do, it's mostly for coordination and to talk about events I've gone to”; and “Because i have friend.” Three felt that neither or both answers applied, with one elaborating: “A bit of both. A lot of my hobbies are online but I do feel antisocial sometimes.” Two reported feeling worse, with one elaborating: “I see how much fun everyone else is having and I feel left out.”

Discussion

Previous work indicates that the online environment can be a place for individuals on the autism spectrum to connect and communicate, and evidence from teens in this study support that idea. Not only do they prefer to communicate online, they are excited about those connections. More than half of the teens reported that in the digital world, they were most excited about the “ability to connect with others.” Opportunities for communication are incredibly valuable for teens on the autism spectrum, for whom a diagnostic criterion includes deficits in social communication (American Psychiatric Association, 2013). One-third of participants in this study said they would rather have most conversations online as opposed to face-to-face. As one teen said, there are no conversations they would rather have face-to-face, preferring instead the online environment.

Teens' top two favorite things to do were streaming television or videos, and reading about things that interested them. It is not uncommon for individuals on the autism spectrum to focus intently on special interests (Jordan & Caldwell Harris, 2012); findings in this study support this as teens enjoy reading about their interests online with a purposeful intention. Additionally, it is likely that they are able to find particular videos based on their interests for streaming online. While watching videos and reading can be solitary activities, participants did describe an appreciation for using the Internet and technologies for communication and connection. Though none of the teens surveyed in this study chose social media as their favorite thing to do online, it was listed by more than half as one of the activities they do the most often. Though playing video games was not listed as a favorite activity, nearly half (four of nine) of teens listed it as a “top three” online activity. This study did not delve into whether those opportunities also allowed for communication and connection, or whether the video games were a more solitary pursuit. But, there are often opportunities built into video games for player-to-player interaction. A 2015 Pew study found that teen boys in particular establish and nurture friendships through online gaming (Lenhart, 2015), and role-playing games, massive multiplayer online games, and many gaming systems offer video games with speaking and texting capabilities.

More than half of teens felt that social media makes the world a better place, though many were quick to point out that there are negative aspects associated with social media use. Some of the teens in this study did wish to unplug sometimes, with one saying that “sometimes being online makes me sad.” Unfortunately, there is no follow-up information from the participant who said being online produces feelings of sadness. However, there is evidence that in the general population, excessive time on the internet can lead to feelings of disconnection, depression, and/or sadness (Agosto, Abbas, & Naughton, 2012). Cyberbullying and other forms of online harassment are common occurrences for all teens participating in online communities, in particular on social media platforms. There is potential for engaging in conversations and, possibly, cyberbullying in most if not all of the online activities listed.

Peripheral to the study's findings themselves is the serendipitous finding of conversational tone - that the answers to the questions were answered honestly and with rich description. This might be a result of the participants themselves; many individuals with ASD describe themselves as having an “intrinsically honest nature,” perhaps based on their desire to conform to pre-established codes or rules (Atherton et al., 2019, p. 1190). These characteristics made gathering rich, qualitative data ideal. Though this survey relied on both quantitative and qualitative data, future work could allow for more depth in answers by utilizing more open-ended questions in the data collection process.

Educators and librarians can take the findings from this study to better understand the digital lives of youth on the autism spectrum. Such teens are no different from neurotypical teens in that they use the Internet to connect and explore interests, and educators might use this information to provide and support virtual opportunities. While there is potential for negative interactions online, there is also potential for meaningful engagement. Educators and librarians can help teens on the autism spectrum identify and engage with community-building platforms, either those that are specific to the autism community or those that are based on a teen's special interests.

With a sample size of nine, results cannot be generalized to the population, but they do reveal compelling experiences and opinions of members within this community. As part of a broader research project, the call for participation specifically targeted teens who also identify as library users and were already active in an online discussion board forum. The study did not capture responses from teens who perhaps avoid the online environment

entirely. Social media and other online behaviors might be reflected quite differently from those teens, and that information was not possible to capture within the scope of this study.

Conclusions

The Internet allows for a wealth of opportunity for learning and engagement for all, and teens on the autism spectrum are no exception. A teen who wishes to engage with peers can find and construct this community with other autistic teens from across the world, creating a mutual support system based on common experiences. A teen who wishes to simply explore his or her unique interests has the ability to dig deep and access resources online through various types of media, including videos through streaming platforms, and reading information available through avenues such as static text and discussion forums.

This study demonstrates that members of this population value opportunities for the individual pursuit of knowledge online, but not as their sole digital activity. Teens participating in this study also use the Internet as a tool to facilitate communication and interaction as they navigate social interactions, even with members of their local community. Teens on the autism spectrum who were participants in this study lead rich digital lives that allow them opportunities to explore, focus on interests, and communicate with others.

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