



## **“Getting Basic Information Isn’t as Helpful as the Nuanced Advice We Can Give Each Other”: Teens with Autism on Digital Citizenship Education**

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### **Abstract**

In this exploratory study, the researchers examine the intersection of teens with autism as public library users, their perceptions of and experiences with cyberbullying, and the potential role of public librarians in providing relevant digital citizenship programming. Results from this study indicate that teens on the autism spectrum live rich digital lives and have experience with both sides of cyberbullying, or digital drama. This study suggests that teens are willing to answer questions about their digital lives and demonstrate a desire to learn more about best practices in navigating the online environment, especially when learning alongside peers. Practical implications based in inclusion are given for public librarians seeking to implement digital citizenship education for the communities they serve.

### **Introduction**

Public libraries meet the needs of their users by providing relevant and community-driven collections, services, and educational programming. One population that librarians serve are individuals who identify on the autism spectrum, an estimated one out of every fifty-nine individuals in the United States (Baio et al., 2018). Autism is a lifelong disorder, and this prevalence is true for all members of the population, regardless of age. Librarians, whether they realize it or not, are already working with children, teenagers, and adults with autism spectrum disorder (ASD).

Teenagers, defined as 12–18 years old in this study, often have tailored services at their public libraries. Depending on the size and staffing of the library, some have a dedicated teen librarian(s), a teen space, and/or teen programming and other services. Teen programs can consist of those designed for recreation, such as movie nights, to those planned with an educational aspect, such as learning to code and do game design. Within these planned educational events, many public libraries offer inclusive programming for teens with disabilities, and some work deliberately to ensure inclusion for teens on the autism spectrum. One such area for educational programming particularly important for teens is digital citizenship. However, while digital citizenship education for teens is prominent in many school districts, it has infrequently been incorporated into educational programming in most public libraries (Agosto, Forte, & Magee, 2012; Hill, 2015).

In this study, the researchers explored the intersection of teens on the autism spectrum as public library users, their perceptions of and experiences with cyberbullying, and the potential role of public librarians in providing relevant digital citizenship programming. This work is an extension of an earlier study conducted by the researchers that investigated current and potential digital citizenship programming for teens on the spectrum through interviews with public librarians across the United States. The findings from the previous study indicated that while librarians are interested and motivated to provide digital citizenship programming, it is rarely offered as a teen library program (Phillips & Anderson, in press).

This project addresses the following research questions:

1. What perspectives do teens with ASD have regarding digital citizenship?
2. How can public librarians address the digital citizenship needs of teens with ASD?

## **Literature Review**

With access to the internet and handheld digital technologies also comes the potential for mentally, emotionally, and psychologically damaging interactions (Kim et al., 2018). Cyberbullying is one such manifestation of these interactions that teens might experience while online, whether in the role of a bully, victim, bully/victim, or bystander (Bastiaensens et al., 2014). Not only are these experiences painful and humiliating in the moment, much like traditional face-to-face bullying, they can have lifelong consequences such as contributing to low

self-esteem, depression, and social anxiety (Brown, Demaray, & Secord, 2014; Giménez Gualdo et al., 2015). Like their neurotypical peers, or those who are not on the spectrum, teens on the autism spectrum have the potential for engaging in, and being subjected to, cyberbullying. Combined with guidance from parents, teachers, and other community members, some opportunities are available for teens to learn safe, ethical, and healthy online behaviors. This study investigated the potential for public libraries to provide this education through library programming. The following literature review provides context for the study based on work done in the areas of cyberbullying, autism, digital citizenship, and public library programming.

### *Cyberbullying*

Cyberbullying has been defined “as any behavior performed through electronic or digital media by individuals or groups that repeatedly communicates hostile or aggressive messages intended to inflict harm or discomfort on others” (Tokunaga, 2010, p. 278). Alongside cyberbullying, trolling and other forms of online harassment are a persistent problem that teens encounter as well as perform (Davis et al., 2015). Like traditional bullying victims, cyberbullied youth have long-lasting mental and emotional consequences such as being prone to self-harm, low self-esteem, and depression into adulthood (Accordino & Accordino, 2011; Kim et al., 2018).

While statistics regarding the prevalence of cyberbullying vary widely, Brochado, Soares, and Fraga (2017) evaluated cyberbullying studies published from 2004 to 2014 and found that victimization rates spanned from 1.7 percent to 61 percent. Although these numbers may be widely differing, what is clear from cyberbullying research is that online harassment is an ongoing, increasing problem among teens within the United States and internationally (Ditch the Label, 2017). Additionally, Smith et al. (2008) found that teens suffering from cyberbullying are less likely to tell anyone (e.g., a teacher or parent) than teens who experience traditional bullying, which significantly reduces the ability to collect accurate rates of victimization. Cyberbullied teens are more likely to share with friends, if anyone, what they are experiencing and/or witnessing (Phillips, 2016). Even the terminology around cyberbullying is complicated. In a presentation by Marwick and boyd (2011), they explained that teens themselves do not typically refer to what adults would label “cyberbullying” as cyberbullying. To teens, cyberbullying behaviors are “drama,” everyday occurrences, and accepted as just a norm among teens.

Therein lies the challenge of fully understanding how pervasive cyberbullying truly is among teens. The secrecy involved is common. The challenge becomes even more complex when attempting to understand cyberbullying prevalence among teens with special needs.

### *Bullying and Autism*

Like their neurotypical peers, teens with autism spectrum disorder (ASD) experience, witness, and sometimes even participate in bullying. However, teens with autism can be at an increased risk of being the victim of these behaviors (Cappadocia, Weiss, & Pepler, 2012; Carter, 2009; Didden et al., 2009; Kowalski & Fedina, 2011; Little, 2002).

Though characterizations of autism manifest differently in those with the disorder, diagnostic criteria include differences in communication and social interaction. From the *Diagnostic and Statistical Manual of Mental Disorders*, 5th edition (*DSM-5*), criteria include “persistent deficits in social communication and social interaction across multiple contexts.” The following areas are given as examples as that which might be observed presently or noted as having previously occurred: “Deficits in social-emotional reciprocity. . . . Deficits in nonverbal communicative behaviors used for social interaction. . . . Deficits in developing, maintaining, and understand[ing] relationships” (CDC, 2018, para. 2). It is these very differences that might lead to misunderstanding both of and by their peers, putting teens with ASD at increased risk for so-called digital drama. As noted by Anderson (2012), youth on the spectrum are not only more likely to be bullied, but they also, whether knowingly or not, participate in bullying others; parents reported that at school, their children “with ASD usually do not have the social awareness to stay quiet or even lie when called for in social situations. Unfortunately, their complete honesty was viewed as bullying in some cases” (para. 24). Additionally, being bullied can lead to youth with ASD demonstrating bullying behavior, a phenomenon known as the “bully-victim”; these bully-victims are typically less passive and “try to fight back in a way that only makes the situation worse” (Anderson, 2012, para. 22).

Parents, teachers, and teens themselves describe increased bullying/bullied experiences for those on the autism spectrum. Ninety-four percent of mothers of children with Asperger syndrome (a former diagnosis on the autism spectrum) reported that their children “experienced some form of victimization within the previous year,” while teachers reported not just victimization but also, and with even more prevalence, perpetration by those on the spectrum

(Little, 2002, in Sterzing et al., 2012, p. 1059). Teens themselves reported perpetrating bullying in the previous year (19 percent) more often than being victimized by bullying (17 percent), with both percentages higher than those reported by their neurotypical peers (Sterzing et al., 2012).

The notion of bullying perpetration is echoed in interactions online; multiple studies have noted that individuals with ASD, or “autistic traits” (Kowalski & Fedina, 2011, p. 424), are more likely than their neurotypical peers to perpetrate cyberbullying (Kowalski & Fedina, 2011; Seigfried-Spellar, O’Quinn, & Treadway, 2015).

### *Digital Citizenship Education*

School librarians frequently adapt various national- and state-provided resources for use in information literacy education for all teens (e.g., “Common Sense Media”; “Be Internet Awesome”). This is illustrated by a study by Phillips and Lee (in press), who conducted a statewide survey of Utah school librarians on the provision of digital citizenship instruction in their schools and resources used. Public librarians are aware of the necessity for digital citizenship education, with this being one of six core teen outcomes recommended by the Young Adult Library Services Association (YALSA, 2019). However, little awareness has been given to similar instruction and resources for teens on the autism spectrum who, like their neurotypical peers, are playing games, socializing, and seeking information online (Phillips & Anderson, in press). Mainstream digital citizenship publications and other materials are heavily focused on neurotypical teens.

Established resources, such as Common Sense Media, offer regularly updated lesson plans and guides for educators and parents. However, these school-based resources provide complications for public librarians who want their libraries to not adhere to the strict scheduling of school and to offer an open-environment space for socializing and informal learning through “hanging out, messing around, and geeking out” (Ito et al., 2010). The question becomes how to support autistic teens’ digital literacy and digital citizenship without replicating a classroom-style education; perhaps the answer is through the public library.

### *Public Library Programming*

Public libraries frequently include programming that support children with disabilities, encompassing sensory and motor disorders, physical disabilities, and cognitive impairments

(Grassi, 2016). Library and Information Science (LIS) researchers highlighted the critical role librarians play in educating teens about cyberbullying (Agosto, Forte, & Magee, 2012; Hill, 2015).

In an earlier study by Phillips and Anderson (in press), public librarians described a willingness to create programming for teens on the spectrum, though they expressed reluctance at being seen as the subject-matter experts within their library. Instead, librarians seemed more at ease when hosting presenters, providing meeting spaces, and coordinating educational sessions. Some librarians already provide inclusive opportunities for teens with ASD and are comfortable expanding these sessions to include digital citizenship; however, how to successfully incorporate digital citizenship instruction is still a discussion point for librarians (Phillips & Anderson, in press).

## **Methodology**

This study employed an online survey of multiple-choice and free-response questions (see Appendix). The researchers combined survey questions from three different instruments, two originally distributed by Common Sense Education and one from the Pew Research Center (Common Sense Education, 2014a, 2014b; Pew Research Center, 2016). Survey questions were imported into Qualtrics software and, after receiving IRB approval from both of the researchers' institutions, distributed online. Calls for participation were posted to the online discussion forum *Autism Forums* ([www.autismforums.com](http://www.autismforums.com)), in the specific forum "Autism Spectrum News, Events and Research," under the title "Teens Who Use the Library." These postings and the survey remained available for two months.

Individual survey responses were examined closely using SPSS software to determine authenticity. First, responses were evaluated based on length of time taken to complete the survey in totality. Qualtrics suggested the survey should take approximately fourteen minutes to complete; those that were significantly shorter (the researchers determined ninety seconds to be the appropriate cutoff based on review) were removed prior to analysis. Some responses mirrored one another too closely to be considered unique; what's more, other responses were simply strings of words unrelated to the questions. Responses were also removed if the grade entered indicated that the participant was not truly a teen or, if so, was not taking the survey seriously (e.g., "Grade 34"). Finally, participants had to complete a majority of the survey, at

least 90 percent, to be included for analysis. From an initial pool of seventy-two survey responses, responses were narrowed down to nine valid participants. These participants were provided with ten-dollar gift cards for their participation. It is assumed that the responses deemed to be invalid were submitted in hopes of earning this incentive, though these participants did not meet sampling criteria. After verifying and finalizing the sample, the researchers analyzed participant responses in two approaches: first, using statistical tools within Qualtrics for quantitative data, and next, using open and axial coding following the Saldaña (2016) method for qualitative data. Using the open-coding approach, the researchers read through the data multiple times before assigning initial codes based on emerging themes. Using axial coding, relationships were identified among those initial codes.

## **Findings**

In this study, qualitative data is presented in its original format, attempting to provide participants' control over their own narratives. Exceptions have been made only in the instance of potentially offensive curse words, in which asterisks are used with the first and sometimes last letters instead.

Results are presented below in response to this study's two research questions, first exploring the perspectives that teens with ASD have regarding digital citizenship, and next exploring digital citizenship education and the potential role of public librarians.

### *Perspectives of Teens with ASD Regarding Digital Citizenship*

#### **PERSONAL SOCIAL MEDIA USE**

The majority of teens in this study reported that they used privacy settings on their social media accounts (six of nine participants). When asked in the survey as an open-text response, "What is one thing you would never share online?" most of the teens described personal information. One-third of participants (three of nine) said they would never share their home address or "exact location"; another said "identification information: SSN, credit card number, etc." One teen said health information, another replied legal name, and one stated that he or she would never share his or her naked body. The remaining answers were "all" and "my painting"; this suggests that these participants would, respectively, keep all information and their own creative works private.

The majority of participants in this study reported that they do not have rules in their house about technology (six of nine participants). Of those who do have rules, the rules that they found to be helpful were the following: “For every hour using a computer or phone, spend one minute at least walking around,” “Don’t use extensively,” and “Not using it during meals.” Though all of these rules were different based on the participant, each of the reasons given for *why* they were helpful all related to self-moderation and staying grounded in reality: “It stops me from spiraling and losing track of time. I set a timer for an hour which is super useful”; “If I’m using it past midnight I’m obviously not sleeping”; “Keeps us in reality.”

### **PEER SOCIAL MEDIA USE**

When asked, “What kinds of digital drama do you see on your newsfeeds or timeline?” some teens said they did not see digital drama or they declined to respond (four of nine participants). But others noted that they witness “people arguing on Facebook,” “Politics” as digital drama, “awful people being awful,” and specific niche interests such as those related to “pewdie pie youtube drama and ice poseidon.” One teen described an event that occurred in the physical environment but was discussed online: “I’m a senior in high school, and so people are sometimes insensitive dips\*\*\*s. Most recently, there was drama over a senior prank and whether releasing crickets in the school library was funny (it wasn’t). High schoolers are dips\*\*\*s, but they aren’t any more dips\*\*\*s than they would be without the internet.” This teen commented that the drama would have occurred with or without the internet.

To another survey question, “If you could make one new technology policy that everyone had to follow, what would it be?” open-ended responses varied widely, though themes emerged related to respecting others as far as not bullying or using “other people’s stuff,” self-moderation, age limits for accessing content, and limiting “horrible s\*\*\*” (with child porn and gore given as examples). One teen replied “not to bully online,” another answered to “impose age limits on some websites,” and another teen said to complete homework first. One response related to taking a pause: “Before replying to something on the internet, take five seconds to think about it.”

Do teens want their loved ones to unplug? Mostly, yes. One would like a sister to reduce the time she spends on Snapchat because “she’s on it constantly.” A different teen felt that his or her mom was “on the phone too much”; another participant thought his or her parents need to

unplug because “there are times they just make the situation worse.” It is unclear what situation was being referred to here. Finally, one said confidently, “My parents have an unhealthy relationship with technology which I think we’d all benefit from them getting over.”

However, one participant felt adamantly that it was not his or her business to tell family members what to do (“Parents can do whatever the f\*\*\* they want. Its their life smh”), and the question was deemed as largely irrelevant to one participant who answered, “I don’t have friends and don’t care too much about my parents.”

### *Cyberbullying*

How did teens in this study define cyberbullying? For many of the participants, they described it as a form of bullying on the internet, with one elaborating eloquently to say that it is “bullying with the benefit of online relative anonymity.”

When asked, “Do you feel like you have ever been cyberbullied?” four of nine participants said no, another four of nine said yes, and one was not so clear: “I occasionally argue with people on the internet (don’t) but it’s not one sided in the way it would have to be to be bullying.” Those who said yes expanded on their answers. Two reported instances of photos being used: “yes i have been harassed online people at my school took a picture of me and edited it so i looked badly”; and “Yes. I had a situation where I became a Snapchat sticker by a group of bullies.” The other two described: “Yes, girl got jealous I was talking to her boyfriend and called me a wh\*\*\*”; and “Some c\*\*\* stalked me once and told me to go kill myself.”

On the opposite side, we asked, “Do teens feel like they have ever been a cyberbully?” Five participants said no or nope; one of those expanded on his or her answer: “no I have always been taught to treat people the way i want to be treated.” Three responses were not so black-and-white: “I don’t think so”; “I occasionally argue with people on the internet (don’t) but it’s not one sided in the way it would have to be to be bullying”; “No. I complain online but never point it towards others.” Finally, only one teen fully admitted to being a cyberbully at one point, giving the following example: “I called someone a c\*\*\* once.”

When asked, “What is especially tricky about managing a situation of cyberbullying?” the idea of anonymity arose in many answers: “no way of really knowing the person doing it”; “we don’t know who did the bad thing”; “It is difficult to find a real person.” The internet was also described as a boundary object: “It’s more common, just because people evolved to feel bad

about seeing other people upset, but that natural safeguard isn't there for cyberbullying"; and another cited the "isolation of the Internet."

Additionally, teens surveyed reported that cyberbullying spreads quickly: "No one can stop it." And it reaches many people: "it's hard to stop cyberbullying because lots of people see the messages on social media and it spreads like a virus." One teen said what is "tricky" is that "unless you have proof of everything, nothing gets done about it"; another responded that he or she does not know because "I've never really witnessed it happened."

The teens were asked: "A lot of adults are worried about how teens use technology. Are their worries legitimate?" A slight majority (five of nine participants) said no, while four participants said yes. As a follow-up, they were asked which worries that adults have about how teens use technology were legitimate and which were not. The four teens responding to this question replied that legitimate concerns were "bullying, giving out personal information, becoming addicted to gaming" and "Legit: predators, disconnection from real world, ease of information for things like, idk, how to make a bomb, cyber bullying?" One teen said that concerns depended on "the teens using it," and another stated that legitimate concerns focused around health issues: "a lot of people do use technology as a way to avoid having to spend any time inactive, which can't be healthy." Teens in this study thought that adults should not be concerned about teens making friends online: "Not legit: teens having internet friends that aren't pedophiles"; and about ". . . using technology to think for them. That's wrong. Having something that can do the meaningless parts of problem solving is incredibly useful and there's no reason not to have it."

## *Digital Citizenship Education*

### **DIGITAL CITIZENSHIP AT SCHOOL**

The majority of teens, six of nine participants, had conversations at school, whether through conversations with friends or through formal instruction, about "managing tech distractions," "using tech for homework," and "behaving appropriately online." Five participants also had conversations about "sharing pictures of myself"; four described instruction about "having a balance of online/offline activities"; and three participants had conversations about "tagging or uploading pictures of other people," "downloading movies/music legally," "understanding creative credit/copyright," and "shopping and buying things online."

## DIGITAL CITIZENSHIP EDUCATION IN GENERAL

Do teens talk about digital citizenship at home? When asked, “Which topics have you had conversations about at home?” the most common response (with teens choosing all options that apply) was “Having a balance of online/offline activities,” followed by four of nine who reported: “managing tech distractions,” “sharing picture of myself,” “using tech for homework.” Three out of nine had conversations on “shopping and buying things online”; two of nine had conversations about “tagging or uploading pictures of other people” and “behaving appropriately online.” Only one of nine had discussions about “downloading movies/music legally,” and none had conversations about “understanding creative credit/copyright.”

Outside of school or home, in response to the same question, the most common response (four of nine) was “having a balance of online/offline activities.” Three of nine each had conversations about “downloading movies/music legally” and “understanding creative credit/copyright.”

Interestingly, when asked where conversations about digital practices took place outside of home or school, of those who qualified their answers, the most frequent answer was “online.” Two also discussed these topics with “friends,” with one elaborating: “I talk to friends about balancing our lives. Teenagers are smarter than you’d expect, and getting basic information isn’t actually as helpful as the nuanced advice we can give each other.”

Despite having some of these conversations already, teens do want more information about some digital citizenship topics. When asked, “Are there any topics you wish you had more information about and help with?” not one selected “other” or “no.” Instead, responses were varied. Teens could choose multiple options. Two selected the following: “managing tech distractions,” “behaving appropriately online,” “setting privacy settings,” “sharing information online,” “understanding your digital footprint,” and “dealing with cyberbullying.” One selected the following: “sharing pictures of myself,” “tagging or uploading pictures of other people,” “using tech for homework,” “downloading movies/music legally,” “understanding creative credit/copyright,” and “shopping and buying things online.” None wanted more information about “choosing passwords,” “creating usernames,” or “talking with strangers.”

## *Public Libraries*

Despite wanting to learn more about digital citizenship, when asked, “If the public library offered free programs about any of the above topics, would you be interested in attending?” most of the teens said no or probably not (seven of nine). One said yes, and one said maybe.

Would anything bring them in for a program about digital citizenship at the library? When asked, “What could the public library do to make you more interested in attending a free program about any of the above topics?” three teens said no or that nothing would bring them in. Others responded similarly, though did not say no quite so directly: “Not treat all people with autism as stupid, smh”; “Pay me to go”; and “programs where adults tell teenagers what they’re doing wrong will never be an effective model for changing teen behavior. Never.” One teen said that they would be interested if the library could “have a pizza party and bring in different speakers”; and another suggested he or she would be interested if the library could “have other teenagers talking about it.” One did not respond to the question.

This is not because they don’t use public libraries. Reflecting upon the previous year before the survey, teens reported visiting the public library in person at least once a week (three of nine); at least once a month (three of nine); or several times a month (two of nine). One participant said never, and no participants answered “at least once.” This indicates that of those who visited in the prior year, they visited more than once.

Do they use the library online? Yes; the most common answer was “several times a month” (three of nine), followed by two who said “never in the last year” and two who replied “at least once a month.” One uses it at least once a week, and another has used it at least once in the prior year.

When asked if they have “ever visited the library to . . . ,” selecting all that apply, the most common answer was “just sit and read” (seven of nine). This is followed by “borrow books” (six of nine). The next most popular answers, in order, were “study or watch and listen to media” (four of nine); “attend a class” (three of nine); and “attend a social event” (two of nine). Only one visited the library to “attend a meeting for a group you belong to,” and one responded with “none of those options.” None of the teens report that they have visited a public library, ever, in order to “get help from a librarian” or to “use computers, the internet, or a public Wi-Fi network.”

Of all of the reasons why they've visited a public library, what is their favorite? Again, "just sit and read" was the most popular answer for three of nine participants; otherwise, answers were scattered.

## **Discussion**

Teens in this study opened up about their digital lives and provided insight about their experiences with digital citizenship. Previous work suggests that librarians are open to digital citizenship programming for teens on the spectrum, though they are not currently implementing it and appeared reluctant to be the subject-matter experts at their libraries (Phillips & Anderson, in press). The current study suggests that the teens, though willing to answer questions about their digital lives and demonstrating a desire to learn more, were not eager to be educated by adults about the topic. Additionally, though they reported themselves as library users, they might not envision the librarian as playing a role during their visits.

### *Digital Lives of Teens with ASD*

Teens who participated in this study have active digital lives and gave many examples of how they interacted in various ways with technologies. They were also very aware of the digital lives of others, including friends and family. These teens expressed being quite savvy about their media usage, and more than half already had some form of privacy settings on their digital devices. Some also had clear strategies for taking a break from their devices. However, the prevalence of digital drama persisted as a theme, as reflected in this study's findings.

### *Teens with ASD and Bullying*

There is no definitive answer, but results from this study suggest that digital citizenship instruction of some sort could be beneficial for teens on the spectrum. Researchers, parents, teachers, and other adults know that teens in general are at risk for being cyberbullied, and that those on the spectrum are even more so. This study found that, of those who reported being cyberbullied, the examples were extreme. Pictures of the participants were used to attempt to humiliate them online, one was called offensive names based on talking to a peer's boyfriend, and one was told to kill him- or herself. These examples are not to be taken lightly; it is clear that there is severe damage being done to teens on the spectrum during their online interactions.

Nearly half of the teens who participated definitively said yes, they have been cyberbullied, which is more than twice the number of self-reported bullying incidents as previously cited in works about perceptions of face-to-face interactions (Van Roekel, Scholte, & Didden, 2010). One reason for this variability could be that the sample size is small and not reflective of youth with ASD as a whole. It is likely that with more participation, these statistics might shift. However, it is possible that there are simply more opportunities to bully and be bullied in the online environment. Teens, both neurodivergent and neurotypical, participate in social and communicative interactions while sometimes employing the shield of anonymity and online disinhibition, allowing for less consideration to or awareness of the effect of their actions. Teens in this study recognized the issues particular to the online environment, including the relative anonymity the internet affords for digital drama to spread rapidly.

Answers to the questions about perpetuating and being victimized by bullies are nuanced and must be explored for more than just a yes or a no response. One participant in this study did note that he or she “occasionally argue[s] with people on the internet,” but that he or she did not view this as being a bully because it is not one-sided. How these arguments appear to those this teen interacts with online, however, is unclear. As this study relied on self-reported information, the researchers were unable to understand the perception of the others involved in these “arguments,” and it is possible that bullying may be taking place. Clearly, the participant realized the potential for these arguments to be viewed as bullying since he or she used it as an example in response to the question.

As with neurotypical teens, teens with ASD are at risk for being cyberbullied and acting as the bullies themselves. In this study, some admitted to having the dual role of bully-victim. This is not an uncommon finding in cyberbullying research with teens in general (Bauman, 2010; Dukes, Stein, & Zane, 2009). However, it should be noted that the survey responses were the perceptions of teens, and only reflect their interpretation of these situations. Additionally, some instances of cyberbullying, as perpetrator or victim, are not clear. Van Roekel and colleagues (2010) found that as a teen was bullied, the more likely he or she was to map those perceptions on non-bullying interactions, misinterpreting what might be benign as instead an instance of bullying. As a result, those who viewed themselves as victims may have a biased view of what might be normal interactions. It is possible that differences in communication styles and

interpretations of communication by others may compound these experiences for teens on the autism spectrum.

It is critically important to gain insight directly from the population studied instead of asking others to speak for them; this is particularly true in the context of marginalized or underserved populations such as those with disabilities, in which parents or caretakers are often asked to speak for them. Researchers in this study made a very conscious decision to ask teens with autism themselves to speak to their own lived experiences. While parents, teachers, or researchers often have different understandings of cyberbullying and are able to clearly state that these interactions have occurred, the self-reporting of data is one of the biggest strengths of this study. Additional perspectives would add a valuable thread to the findings of this study; however, the responses can also stand alone, as previous work found “several indications that the perceptions of adolescents with ASD on bullying were likely to be accurate” (Van Roekel, Scholte, & Didden, 2010, p. 70).

### *Role of the Library*

As indicated by the teens’ responses, libraries do play important roles in their lives. Teens may not directly engage with librarians regularly, but they are using the books, materials, and space that their librarians have carefully developed with teen patron needs as the focus. Interestingly, even though the teens in this study are tech-savvy enough to have been recruited from an online discussion forum, and answered high-level questions about their digital practices, their experiences and preferences in using libraries are quite traditional. They expressed enjoyment in going to the library to “just sit and read” and borrow books. They like to explore their interests and enjoy a quiet space. As noted earlier (Ito et al., 2010), teens want a place to hang out.

In contrast, teens in this study reported rarely using the library to attend events or classes, and this is not because they don’t have things they want to learn. Teens in this study gave us many answers when asked what topics related to digital citizenship that they wanted to learn more about (not one said “no, there are not topics I want more information about or help with”). But when asked if they would attend a free program about any of those interests at the library, they largely said no, and that not much would bring them in. Pizza and peer-led interaction and/or education were the only practical suggestions offered as to what might bring them in for such a library program.

### *Implications for Practice*

As suggested by the survey responses, instruction about digital citizenship for teens with ASD would likely be helpful. The question that remains is whether public librarians should be the ones to address this gap. Public librarians provide programming that meets the needs of their communities, and previous work indicates that they are willing to offer digital citizenship programming (Phillips & Anderson, in press); however, it is possible that even if such programs are offered, teens might not be receptive. Many school systems provide education for successfully navigating the online environment, and perhaps this is where public libraries might start. Librarians could work to supplement, not duplicate, the efforts already being made in the classroom by providing inclusive programming for all teens. Most importantly, this should be done in collaboration with the teens themselves, having teens who are particularly tech-savvy serve as peer mentors for both their neurotypical and neurodivergent peers or leading tech-gearred programs that subtly include online safety and digital citizenship. As found in this study, teens on the spectrum would value sharing these educational sessions with their peers.

Peer mentoring has been shown to be successful for other library programs, including those for teens on the spectrum (Phillips & Anderson, in press); teen participants in this study reflect that idea, and they value learning and working with other teens as well. In this sense, a peer group to support one another in practicing what was learned from school might be a successful approach for public librarians to take in supporting positive digital citizenship. Librarians might reach out to local autism organizations to see if they know of teens who would be interested or find value in attending; however, these library groups should not just be for those who identify on the spectrum. Instead, programs should be designed to meet the needs of all teens as they work to successfully navigate interactions online, with neurodivergent teens invited and included just like neurotypical teens.

It is important to note that the point of this study is not to “other” teens on the spectrum, or to say that they should be the ones to adapt to what might be the neurotypical standard of communication and interaction online. Teens with ASD should not be required to feel that they need to hide so-called “autistic traits” and conform to supposed social standards, and librarians should certainly not create individual classes only to educate teens on the spectrum; this goes against the critical ideas of inclusion and acceptance. Instead, results from this study should be used to provide further support to the idea that even tech-savvy teens on the spectrum are

experiencing severe instances of cyberbullying, and that preventive work and additional research should be done in this area. The results of this study and a greater understanding of the cyberbullying risks for teens with ASD should not be an indication that these teens need to change, but instead that they may benefit from becoming more aware of communicative norms in the online environment around them, which will provide them with a better idea of how to navigate interactions and the ability to know when to remove themselves from harmful and negative situations.

## **Limitations**

While all attempts were made to produce a comprehensive exploration into the cyberbullying experiences of teens with ASD, some limitations must be noted. First, the participants for this study were recruited from an online discussion forum, which is an indication that they are already comfortable in the online environment. Responses from teens recruited offline might generate different responses in regard to their digital lives.

Additionally, the initial recruitment post asked for “teens who use the library.” The researchers were specifically interested in hearing from teens who were already familiar with library services to gain a better understanding of how they might respond to the introduction of digital education within those services. A different call for participation might generate a different sample of teens, and responses about current library use would likely be more varied than the relatively positive responses generated here.

Finally, this study utilized a small sample. Therefore, it is not generalizable or representative of all teens with autism and their online behaviors. Instead, it can be read as an exploratory study that can support and inspire future research and practical approaches.

## **Conclusion**

Results from this study indicate that teens with ASD have rich digital lives and have experience with both sides of cyberbullying. Understanding and interpreting communication online can pose a challenge for anyone, not just those on the autism spectrum. Perhaps the greatest takeaway is that digital citizenship education would be valuable for teens in an inclusive environment, though getting those teens in the door remains the librarian’s challenge.

Librarians wear many hats and function in various roles to support different populations, organizations, and community groups. Before embarking on any additional programming or initiatives, a needs assessment should be completed to determine the specific needs of the communities they serve. If digital citizenship is deemed an important area for education by a public library, such education should be created with the participation of teens themselves. As digital citizenship is important for all teens, not just those on the spectrum, an inclusive approach could also give those with ASD the peer interaction as requested within this study. And, of course, providing pizza never hurts.

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## Appendix

Start of Block: Block 1

Q2.1 What do you do online? (Choose all that apply)

- Use social media (1)
- Do work/homework (2)
- Read about things I'm interested in (3)
- Watch streaming TV or videos (4)
- Read/send email (5)
- Instant message/chat (6)
- Play video games (7)
- Listen to music (8)
- Create media (9)
- Other: \_\_\_\_\_ (10)

Q2.2 Looking at the list above, list in order which three you do the MOST often:

\_\_\_\_\_

Q2.3 Out of all the things you do online, which is your FAVORITE? (Choose one)

- Use social media (1)
- Work/homework (2)
- Read about things I'm interested in (3)
- Watch streaming TV or videos (4)
- Email (5)
- Instant message/chat (6)
- Play video games (7)
- Listen to music (8)

Create media (9)

Other: \_\_\_\_\_ (10)

Q2.4 Let's talk about privacy online. Do you use privacy settings on your social media accounts?

Yes (1)

No (2)

I don't know (3)

Q2.5 What's one thing you would you never share online? \_\_\_\_\_

Q2.6 Do you have any rules in your house about technology?

Yes (1)

No (2)

Skip To: Q2.11 If Do you have any rules in your house about technology? = No

Q2.7 Which rules about technology do you find helpful?

\_\_\_\_\_

Q2.8 Why do you find those rules about technology to be helpful?

\_\_\_\_\_

Q2.9 Which rules about technology do you find less helpful?

\_\_\_\_\_

Q2.10 Why do you find those rules about technology to be less helpful?

\_\_\_\_\_

Q2.11 If you could make one new technology policy that everyone had to follow, what would it be? \_\_\_\_\_

Q2.12 Some teens say that they wish they could just unplug. Do you ever feel that way?

Why or why not? \_\_\_\_\_

Q2.13 Some teens say that they wish that they could get their parents or friends to unplug. Do you ever feel that way? Why or why not?

\_\_\_\_\_

Q2.14 Do you ever give yourself a break from technology? \_\_\_\_\_

Q2.15 If you do not ever give yourself a break from technology, what stops you?

\_\_\_\_\_

Q2.16 Are there any conversations that you would rather have face-to-face instead of online or over texting? \_\_\_\_\_

Q2.17 What about, are there any conversations that you would rather have online than face-to-face? \_\_\_\_\_

Q2.18 Do you think social media make the world a better or worse place? Why?  
\_\_\_\_\_

Q2.19 Overall, does time spent on social media generally make you feel better about yourself or worse? Why? \_\_\_\_\_

Q2.20 Can you fill in the blanks here? My digital life is like \_\_\_\_\_ because \_\_\_\_\_.

Q2.21 A lot of adults are worried about how teens use technology. Are their worries legitimate?

Yes (1)

No (2)

Q2.22 Which worries that adults have about how teens use technology are legitimate, and which ones are not? \_\_\_\_\_

Q2.23 How would you define cyberbullying? \_\_\_\_\_

Q2.24 What is especially tricky about managing a situation of cyberbullying?  
\_\_\_\_\_

Q2.25 What kinds of digital drama do you see on your newsfeeds or timelines?  
\_\_\_\_\_

Q2.26 Do you feel like you have ever been cyberbullied? Describe this. \_\_\_\_\_

Q2.27 Do you feel like you have ever been a cyberbully? Describe this. \_\_\_\_\_

End of Block: Block 1

Start of Block: Block 2

Q3.1 Which topics have you had conversations about at home? Choose all that apply.

Having a balance of online/offline activities (1)

Managing tech distractions (2)

Sharing pictures of myself (3)

Tagging or uploading pictures of other people (4)

Using tech for homework (5)

- Behaving appropriately online (6)
- Downloading movies/music legally (7)
- Understanding creative credit/copyright (8)
- Shopping and buying things online (9)

Q3.2 Which topics have you had conversations about at school? Choose all that apply.

- Having a balance of online/offline activities (1)
- Managing tech distractions (2)
- Sharing pictures of myself (3)
- Tagging or uploading pictures of other people (4)
- Using tech for homework (5)
- Behaving appropriately online (6)
- Downloading movies/music legally (7)
- Understanding creative credit/copyright (8)
- Shopping and buying things online (9)

Q3.3 Which topics have you had conversations about somewhere other than home or school? Choose all that apply.

- Having a balance of online/offline activities (1)
- Managing tech distractions (2)
- Sharing pictures of myself (3)
- Tagging or uploading pictures of other people (4)
- Using tech for homework (5)
- Behaving appropriately online (6)
- Downloading movies/music legally (7)
- Understanding creative credit/copyright (8)
- Shopping and buying things online (9)

Q3.4 In looking back at the previous question, please describe where you had these conversations other than home or school. \_\_\_\_\_

Q3.5 In the past 12 months, have you visited a public library in person:

- At least once a week (1)
- Several times a month (2)
- At least once a month (3)
- As least once (4)
- Never (5)

Q3.6 In the past 12 months, have you used a public library website or online:

- At least once a week (1)

- Several times a month (2)
- At least once a month (3)
- As least once (4)
- Never (5)

Q3.7 Have you ever visited a public library to:

- borrow books (1)
- get help from a librarian (2)
- just sit and read (3)
- study or watch and listen to media (4)
- attend a class (5)
- attend a social event (6)
- attend a meeting for a group you belong to (7)
- use computers, the internet, or a public Wi-Fi network (8)
- none of those options (9)

Q3.8 Looking at the list above, list in order which three you do the MOST often.

\_\_\_\_\_

Q3.9 Out of all the things you do at the public library, which is your FAVORITE?

- borrow books (1)
- get help from a librarian (2)
- just sit and read (3)
- study or watch and listen to media (4)
- attend a class (5)
- attend a social event (6)
- attend a meeting for a group you belong to (7)
- use computers, the internet, or a public Wi-Fi network (8)

End of Block: Block 2

Start of Block: Block 3

Q4.1 What concerns you the MOST about today's digital world?

- Too much screen time (1)
- Seeing poor quality or questionable content (2)
- Amount of digital drama and cyberbullying (3)
- Permanence of my online presence, a.k.a., my digital footprint (4)
- Protecting my private information (5)
- Other: \_\_\_\_\_ (6)

Q4.2 What excites you the MOST about today's digital world?

- Ability to connect with others (1)
- The variety of content—educational, entertainment, etc. (2)
- Anytime, anywhere information (3)
- Ability to create media (4)
- Other: \_\_\_\_\_ (5)

Q4.3 Are there any topics you wish you had MORE information about and help with?

Choose all that apply.

- Managing tech distractions (1)
- Sharing pictures of myself (2)
- Tagging or uploading pictures of other people (3)
- Using tech for homework (4)
- Behaving appropriately online (5)
- Downloading movies/music legally (6)
- Understanding creative credit/copyright (7)
- Shopping and buying things online (8)
- Setting privacy settings (9)
- Choosing passwords (10)
- Creating usernames (11)
- Sharing information online (private versus personal) (12)
- Talking with strangers online (stranger danger) (13)
- Understanding your digital footprint (14)
- Dealing with cyberbullying (15)
- Other: \_\_\_\_\_ (16)
- No, there are no topics I want more information about or help with. (17)

Q4.4 If the public library offered free programs about any of the above topics, would you be interested in attending? \_\_\_\_\_

Q4.5 What could the public library do to make you more interested in attending a free program about any of the above topics?  
\_\_\_\_\_

End of Block: Block 3