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A Promising Practice: Using Facebook as a Communication and Social Networking Tool

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A Promising Practice: Using Facebook as a Communication and Social Networking Tool

Abstract

Individuals with autism often face barriers to social interaction. Residing in a rural environment can compound these difficulties for individuals diagnosed with autism. Some of the reasons include transportation problems and small social networks, in addition to the characteristics of autism. This article discusses a promising practice for supporting the communication and social opportunities for individuals with autism. The authors examined how Facebook supported the social interaction of Jacob, a 28-year old with High Functioning Autism. The findings suggested that, through Facebook, Jacob increased the quantity and quality of social ties he had with others. The authors argue that although online social networking has limitations, with supervision, tools such as Facebook hold potential for developing and increasing social interaction for individuals with High Functioning Autism /Asperger Syndrome.

Disciplines

Education

A Promising Practice: Using Facebook as a Communication and Social Networking Tool

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Abstract

Individuals with autism often face barriers to social interaction. Residing in a rural environment can compound these difficulties for individuals diagnosed with autism. Some of the reasons include transportation problems and small social networks, in addition to the characteristics of autism. This article discusses a promising practice for supporting the communication and social opportunities for individuals with autism. The authors examined how Facebook supported the social interaction of Jacob, a 28-year old with High Functioning Autism. The findings suggested that, through Facebook, Jacob increased the quantity and quality of social ties he had with others. The authors argue that although online social networking has limitations, with supervision, tools such as Facebook hold potential for developing and increasing social interaction for individuals with High Functioning Autism / Asperger Syndrome.

Key Words: social media, autism, social skills

Social networking tools, which started out as a way for college students to stay in touch with friends, have grown into a worldwide phenomenon that includes a wide range of people. Along with the explosion of social networking come the fear and promise of what these tools might mean for people who struggle with social interactions. In this article, we examine the implications of Facebook for one young adult with High Functioning Autism (HFA) who always has lived in a rural area. We suggest that, with guidance, social networking tools, such as Facebook, hold promise for supporting individuals with HFA/Asperger Syndrome (AS) by increasing opportunities for social interactions. We propose that social networking is especially promising for individuals with HFA/AS who face the unique challenges of living in a rural area. The case study described in this article is consistent with an emerging body of research that investigates how virtual environments can be used to support the development of social interaction skills among individuals with HFA/AS (Kandalaf, Didehbani, Drawczyk, Allen, & Chapman, 2012; Parsons & Cobb, 2011).

Individuals with HFA/AS frequently demonstrate differences within language and social skill development. Specific social skill deficits often include underdeveloped or differently developed pragmatic skills. In addition, they also may have an unusual, unique communication style and have difficulty joining existing conversations or social activities (Elder, Caterino, Chao, Shacknai, & De Simone, 2006). Critical social skill deficits can impede interaction for individuals on the autism spectrum. Lack of understanding of personal space, difficulty in understanding the perspective or intention of others, and inability to distinguish sincere interactions from those meant to

hurt, use, or mock can cause lifelong communication and interaction struggles. Winter-Messiers et al. (2007) noted, "One damaging outcome of this deficit is low self-esteem" (p. 69). Memory deficits can impede individuals with HFA/AS in social interactions and conversation as well. When individuals with HFA/AS cannot recall the topic at hand, the possibility of joining in a conversation appropriately decreases significantly. Perseveration may cause him or her to repeat what was previously said (Winter-Messiers et al., 2007). He or she may not be able to become involved in the conversation in "real time." This can cause these individuals to appear to be off topic.

Most young adults with HFA/AS do not possess the natural ability to interact with other adolescents (Blancher & Howell, 2008). These social skill deficits frequently result in their inability to establish "meaningful social relationships," causing them to become socially isolated (Bellini, Peters, Benner, & Hopf, 2007, p. 153). Pollack and Russo (2009) asserted that families often avoid social situations as they often lead to awkward uncomfortable interactions because the "inability to relate easily to peers can be stressful and stigmatizing for these children, especially in their adolescent years when there is such an emphasis on having friends and fitting in" (p. 91). The lack of predictability of situations can cause individuals with autism to withdraw. Furthermore, individuals with HFA/AS also may have difficulty with sensory input, which interferes with their ability to engage with others (Elder et al., 2006; Ruble & Akshoomoff, 2010).

For individuals with disabilities residing in rural environments, the logistics of transportation and scarcity of local

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events can complicate attempts to engage in community activities. Adolescents with disabilities may feel left out as their peers without disabilities learn to drive and explore geographic locations beyond their communities. For example, Jacob, whose experience is described in this article, attended a school that was not within walking distance and he did not live in an area with public transportation. Thus, his ability to engage in school or community events depended upon self-advocating for transportation. This created an obstacle for Jacob.

Bellini (2006) concluded that individuals with HFA/AS, compared to the general population, experience higher levels of anxiety, which serves as a barrier to establishing meaningful social relationships. According to Bellini, individuals with HFA/AS experience two types of social anxieties: (a) performance fears, which cause difficulty speaking in public, and (b) social interaction fears. These anxieties often build upon negative experiences and may result in poor performances (perceived or actual) and increased anxiety about future interactions. Young adults with HFA/AS, who speak of their social interactions, indicate their differences and difficulties cause them to feel isolated and lack connectedness.

Given the described difficulties, what is a simple task for most can be daunting for individuals with HFA/AS. One way to address the challenge is through the use of common interest leisure activities, such as social media, to "construct meaningful relationships" and improve the quality of peer interaction (Chiang, Lee, Frey, & McCormick, 2004, p. 271).

Social media includes digital tools that allow people to interact and share information electronically. Social networking has been shown to contribute to building relationships (boyd & Ellison, 2007); however, others claim Facebook relationships generally are weak (Lewis & West, 2009).

The contradictory findings suggest the need for deeper consideration of the nature of social media and relationship building, especially for those for whom relationship building may be problematic. Such research may be particularly salient when considering the lives of those who have been marginalized. For example, MacIntosh and Bryson (2008) argued that social media is a meaningful place for youth who have typically been outside societal norms to build virtual networks and identities in opposition to societal norms.

The literature on autism and theories of social networking combined with initial observations of Jacob's experience, led us to wonder whether a social medium, such as Facebook, might have different meaning for a person with HFA/AS; thus, we asked, "What do Jacob's relationships within Facebook look like?" and "What are the implications of those relationships for his face-to-face interactions?" We also wondered, "Could strengthening ties through online interaction lead Jacob to experience a greater desire to communicate in general?" As such, we analyzed Jacob's experience to consider whether the composition of a Facebook social network might minimize or remove social barriers for a person with HFA/AS.

Procedures

Insights into the role of Facebook in the life of someone with HFA/AS were provided by working with Jacob. Jacob was the 28-year old son of one of the authors of this article, who was an experienced special education educator, administrator, and teacher educator. Jacob started using Facebook in the fall

of 2009 under the guidance of his mother. As his involvement in Facebook grew, it became apparent he was using the network to increase his social interactions and develop new social experiences. The first author decided to systematically study Jacob's involvement. At this point, the second author, who had expertise in digital media and youth, was invited to collaborate to tell Jacob's story.

Conducting a study with a vulnerable population, such as youth with HFA/AS, is problematic in that consent must be understood and freely given. In discussions with Jacob, he verbally indicated he understood the scope of the case study and agreed to be a co-author in writing an article. Including Jacob as an author is an activist stance that positions him as a contributor to the knowledge base on HFA/AS rather than as a passive subject to be studied. In addition, the co-authors contacted the Institutional Review Board (IRB) at the beginning of the project to ascertain consent requirements. The IRB determined Jacob's status as an author eliminated the need for consent.

Empirical data included Jacob's Facebook page history over a period of 6 months. Jacob's earliest involvement with Facebook was not included in the data corpus because it had not yet become apparent that Facebook had become an important aspect of his social life. In order to build an understanding of Jacob's earliest involvement with Facebook as well as his face-to-face friendships, he was informally interviewed. The co-authors also shared the emerging analysis with Jacob and sought his input as a member check (Lincoln & Guba, 1985) and to obtain his authorial input participation.

Jacob's Story

Jacob displayed communication delays since infancy and did not begin to speak until he was 3 years old. He displayed oral and written communication delays throughout his school years, where he was diagnosed as having HFA/AS. His communication delays interfered with social interactions, and his social delays interfered with communication. According to Jacob, talking to others makes him extremely nervous, but Facebook helps alleviate some of that discomfort:

I try to talk to people but I am concerned that I might say something wrong or make a fool of myself. On Facebook, you are getting to know a person ahead of time before you face that barrier. It is easier when you are not actually looking at the person, trying to make eye contact, and you don't have to keep track of what is going on. Then, you might get to know them, and they will accept who you are once they get to know you.

Jacob attended a rural public school throughout his entire K-12 education with a move in Grade 6 from one rural public school system to another. Jacob's graduating class consisted of approximately 80 students.

Jacob currently lives in a supervised apartment in a small town, has a job, and walks to the nearby public library in order to use the computers to access Facebook. Jacob said his long-term goal for using Facebook is to make friends and potentially develop and improve relationships with others. It gives him the opportunity to "keep people close" in his life with whom he has worked to develop relationships but no longer has the opportunity to see. He stated, "I can keep up with

them, and they can keep up with what I am doing, and, then, when you do see them in person, it gives you something to talk about in a little more depth.”

Analytic Framework

The co-authors analyzed data using social network theory (Garton, Haythornthwaite, & Wellman, 1997). Garton et al. defined a social network as a set of entities (such as people or organizations) connected by social relationships, such as friendships or work. Social network analysis, according to Garton et al., includes the examination of the relations and exchanges between the members of a social network. There are two types of social network analysis that can be conducted: (a) ego-centered and (b) whole networks (Garton et al.). Ego-centered analysis examines the social network from the perspective of an individual and places that individual at the center of the network. In this study, an ego-centered approach served as the analytic framework.

Relations. Relations between members of a social network are characterized by content, direction, and strength (Garton et al. 1997). Content includes the information that is exchanged.

Direction of relations involves the giving and receiving of support and can take two forms. Information can flow back and forth between the two participants or one person may initiate interactions more frequently than the other. Strength is demonstrated through the frequency of exchanges. More frequent reciprocal exchanges in a Facebook relationship indicate a stronger relation than infrequent postings from one person to a second person who does not reciprocate.

Ties. Ties connect members of a social network by one or more relations (Garton et al., 1997) and exist whenever people exchange resources (Haythornthwaite, 2002). Ties can be weak, strong, or latent (Garton et al., 1997). Weak ties are infrequently maintained and non-intimate. Strong ties include combinations of intimacy, self-disclosure, reciprocity, frequent contact, and kinship. Latent ties are those that have not yet been activated but have the potential to become a weak tie (Haythornthwaite, 2002). Haythornthwaite argued that latent ties may be activated through social media, thus becoming weak ties.

Ties can change over time through constant reinforcement, negotiation, and reciprocated exchanges (Haythornthwaite, 2002); thus, weak ties can become strong ties through continual interaction, and strong ties can become weaker if the relations are not reinforced and reciprocated. Social media has been demonstrated to play an important role in the creation, maintenance, and development of ties, as well as allowing people with latent ties to communicate (Haythornthwaite, 2002). Lewis and West (2009), conversely, found most ties on Facebook are weak ties and that Facebook does not contribute significantly to the maintenance of close friendships. Their findings, however, are limited in that they did not investigate changes in those ties over time.

Composition. Composition refers to the social attributes of the participants in an exchange (Garton et al., 1997). A relationship between siblings composes one type of relationship, whereas the relationship between an employee and an employer is another. The type of relationship affects the content of exchanges and the strength of the tie. For instance, a rela-

tionship where one person is more powerful or holds higher status than the other may reduce the likelihood the less prominent person will contribute to the exchange. Garton et al. (1997), however, claimed that, because online social networks reduce the impact of social cues, more people are able to participate in a social network, thus transcending hierarchical or status barriers.

Data Analysis Procedures

The co-authors collected and organized Facebook posts to and from Jacob for analytic purposes. They used analytic induction, described by Becker (1998), to synthesize and reduce units of meaning into categories. The process began with the construction of a social network map (Appendix A) that included Jacob's Facebook friends. They used the map to identify the types of ties and networks in which he was a member. The network map visually represented how loosely or densely Jacob's Facebook network was structured, as well as how each node in his network was related. In order to understand the nature of the relations, they coded Jacob's postings to show whether he initiated contact or commented on a post and whether a person responded to a post or comment he made. They quantified the frequencies of exchanges to show how often he engaged in a social exchange with a person. They coded types of interactions as including (a) exchanges through games, (b) comments on Jacob's postings, (c) Jacob commenting on someone else's posting, (d) wall postings, (e) direct email interaction, and (f) face-to-face interaction. Finally, they analyzed print-outs of Jacob's Facebook communications to create a chronology of use and supplemented these with his memory of his Facebook experience. The co-authors applied codes developed during analysis of the Facebook exchanges to the interview data and created open codes, as necessary.

Implications

Analysis showed that Jacob's use of Facebook changed substantially during the 5 months of data collection. Specifically, the data showed that, over time, Jacob increased the number of interactions (see Table 1), engaged in more bi-directional interactions, initiated more interactions, and moved from the somewhat distant interactions mediated by games to direct interactions over Facebook chat and to the promise of face-to-face interaction with people he had grown to know better over Facebook. Furthermore, Jacob reported an easing of some of his social anxiety.

Increase in Interactions

In the first month of Facebook participation, Jacob was set up with a network of five family member friends. He initially read others' posts and played games. Bi-directional relations developed as he was sent "friend requests" from immediate family members, which he accepted. These initial requests taught Jacob the practice of friending. Bi-directional relations were further built through Jacob's involvement in games that reward players who have more neighbors.

His first spontaneous posts consisted of game status updates during Month Two. At the end of Month Two, he began to socially comment on posts of other people with pleasanties, such as "that's interesting." Social posting (non-game related) interactions with others continued to expand, and, by

Table 1.*Types and Amounts of Monthly Activity*

Type of activity	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7
Commenting about games	8	7	4	0	2	0
Social commenting	3	9	15	15	9	29
Conversations/threads	0	0	3	0	1	1
Number of people – live chats	0	0	1	2	6	7

Note. Data were not collected during Month 1 of Jacob's use of Facebook.

Table 2.*Development of Bi-directional Ties*

Social group	Number of Bi-directional Exchanges					
	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7
Family	2	7	6	5	5	11
High school acquaintances	1	2	4	3	1	14
Co-workers	0	0	5	7	3	4

Month Four, he increased social posting from 3 posts to 9 posts, and, by Month Five, 15 social posts occurred (Table 1). Occasionally, he posted his own questions, such as "Now that the olympic games are a most over, I was curious as to what people favorite events are?" The fourth month of data collection included three bi-directional discussion threads (Garton et al., 1997).

During Month Four, Jacob began to connect with past acquaintances, friends from high school, and co-workers. He started with current co-workers, and then branched out to individuals he knew from previous employment. Over the course of the study, he expanded from his baseline of five family members as friends to over 60 friends. Furthermore, he regularly received comments from others, and he commented on friends' postings as well. During the final month of data collection, he averaged 25 posts per week. Toward the end of the study, he independently began to use the chat feature on Facebook. He started with immediate family, expanded his interactions to extended family, and, then, began chatting with former high school classmates and acquaintances from work. His chatting, however, was limited because he accessed Facebook from the library for the 2 hrs per day allowed by library protocol. In addition, he used the computer in the afternoon, a time of day when many of his friends were not available online. Jacob also joined several Facebook groups. These were mostly sports groups and his high school reunion group. As a result of joining his high school reunion group and the encouragement he received from his Facebook friends, he attended his reunion. Previous to his Facebook experience, Jacob never had initiated interest in such a social event.

Development of Bidirectional Exchanges

Jacob's initial involvement in Facebook exhibited few rela-

tions in that he mostly played games; however, bi-directional relations began in Month Two as he began to comment on other people's posts with pleasantries, such as "It is a good day for a cook out." He also began posting questions, such as "it is nascar day today do you have your pin?" and "severe weather in oklahoma wonder if vortex 2 will intercept another tornado today?" By posting questions, Jacob invited his friends to comment, thus creating bi-directional exchanges, which in turn contributed to stronger ties. Jacob also began reporting on his own experiences. For instance, after traveling, Jacob stated "I really enjoyed the psychedelic tunnel in Detroit," he also posted more personal comments on other people's walls, such as, "I am so sorry about your dad" after his friend's father passed away.

Bi-directional relations also were built as Jacob began friending people he knew from high school and current and past co-workers. Jacob initiated some of these friend requests, and others were sent to him. Reciprocity in relationships was further developed through chatting, by definition a two-way relation, which supported him in developing interactions with other people. During the informal interview, he noted increased comfort in conversational exchanges that have begun to expand into face-to-face communications with people with whom he interacts on Facebook.

Changing and Developing Ties and Composition

An examination of Jacob's social network using a social network map (Appendix A) revealed that he had two basic groups and a third emerging group. The first group, that of family, consisted of strong ties and was densely interconnected. The second group, that of high school acquaintances, consisted of weaker ties and was less densely connected. Although Jacob's ties to his high school acquaintances were

weak, as evidenced by the lower number of interactions, it was significant that Jacob has had more interactions with more of his former classmates as a member of Facebook than he did when he was actually in high school. The third and emerging group was that of his co-workers.

The nature of ties can change over time as they are reinforced through interaction (Haythornthwaite, 2002). This was observed in Jacob's online interactions. As Jacob built bi-directional relations with different members of his various social networks, he strengthened the weak ties, and the potential exists for Jacob to build stronger ties with his co-workers through frequent interaction on Facebook.

Minimizing Interactional Difficulties

In addition to building ties and increasing bi-directional relationships, Jacob's use of Facebook helped decrease the symptoms of his disability. Through observations of his posts, when compared to observed face-to-face interactions, his tendency to perseverate during conversations, talk over others, or stay on topic have been "virtually" eliminated. His online posts have demonstrated the ability to understand and appropriately interpret non-literal communication in print, while processing such information in oral context still remains difficult.

Discussion and Conclusions

Jacob's involvement in Facebook has increased his social interactions in several ways. Without Facebook, Jacob would be fairly isolated in his rural community, but now he is able to have daily interactions with friends and family, albeit on line. As Elder et al. (2006) stated, "social interactions can be confusing" (p. 645), and the ability to process and respond to communication without having to do so in "real time" helped Jacob feel comfortable with interactions. Furthermore, the quality of his interactions, as assessed by content, direction, and strength, improved. His postings now invite others into exchanges and, thus, are bi-directional and frequent. In addition, the use of the chat feature resulted in conversational turn-taking with a variety of people he otherwise would not have engaged in conversation. Through the reinforcement of existing ties and the building of bi-directional relations, Facebook has complimented Jacob's personal interactions and increased Jacob's comfort level as he "feels he knows" the person with whom he is interacting "better." By activating latent ties and creating weak ties, Facebook use also increased the number of opportunities Jacob has for interaction. Jacob consistently expressed a desire for more social interaction. Previously, this was difficult for Jacob due to awkward interactions with others and limited follow through on initiating interactions. Social networking has allowed him to reach for social contact in a way that he finds uncomplicated and stress free. It also has allowed him to transcend his isolation associated with living in rural environment, which in the past exacerbated the challenge of building relationships.

Caveats

On-line social networking is a vehicle for enhancing appropriate communications and social interactions and is not meant to replace genuine human interaction. Ongoing discussions of on-line safety are a necessity. Privacy issues have come to the forefront on Facebook due to the way the service shares

information about users. Although individuals can set stringent privacy levels, doing so requires a fair amount of knowledge about how to negotiate Facebook as well as the ability to comprehend the different privacy options. Parents, teachers and caregivers of people with HFA/AS should closely monitor what private information is posted on a Facebook profile and how the privacy options are set.

Summary

To date, Jacob has created a Facebook social network of 60 friends. This expanded network has provided social opportunities that he did not have the opportunity to experience when in high school. Although most of his conversations continue to center around special interest areas, such as hockey and NASCAR, his parents report that, through the use of Facebook, he continues to slowly branch out, interacting with others beyond his immediate family members and special interest areas. In addition, like anyone, the strength of the relations Jacob experiences on Facebook varies. There are friends with whom he has regular contact, thus demonstrating strong relations and ties, and those with whom he has infrequent exchanges. Weaker ties hold promise for future friendships.

There is promise that the increased comfort level with online communication will generalize into face-to-face interactions over time; however, continued investigation is needed to determine if this approach would be useful for other individuals with autism. Each individual with his or her own set of circumstances, access to community events and opportunities for social interaction is unique. The data indicate that, for Jacob, Facebook may have been instrumental in helping transition to more comfortable face-to-face interactions.

Through Facebook, Jacob connected with former high school classmates, joined the high school reunion group, and was encouraged to attend the event, which he did. On the day of the event, he was dropped off, and, when he was picked up 3 hrs later, he was sitting with the individuals with whom he was friends on Facebook. Six weeks later, when at a baseball game with family members, he was approached by previous co-workers who also were Facebook friends. They sat with him and chatted throughout the game. Jacob said he was comfortable in both of these situations because he knew these individuals from Facebook. Although these informal social situations may seem incidental, they are of note as Jacob struggles with casual social interactions with people he does not regularly see; thus, we suggest that Jacob's growing comfort with social networking has allowed him, and has the potential to allow other adolescents with HFA/AS, to take ownership of social situations.

Although research is needed to determine whether Facebook could be useful for other individuals with autism, the outcomes from our work with Jacob are consistent with existing literature that suggests social media can be used to enhance social cognition and social functioning and transfer that learning to physical situations (Kandaloft et al., 2012; Parsons & Cobb, 2011). Jacob's experiences indicate we are on the cusp of new technologies that hold promise for individuals with disabilities who live in rural communities where accessing transportation, breaking into a tight knit small community of peers, and finding likeminded individuals can be obstacles.

Appendix A

Jacobs' Social Network

Appendix B

Interview Questions

Pre-data collection Interview Questions

- Are you happy with the amount of social interaction you have with other people outside the immediate family?
- Why is social interaction with people you don't know well hard for you?
- Do you know what Facebook is? Would you like to use it to stay in touch with your brother?
Would you like to use Facebook to talk to other people?
- What are the best things about living in the country? What makes living in the country hard?

Post data collection Interview Questions

- What did you like about Facebook?
- Did you like using Facebook to interact with people outside of the family?
- How did using Facebook help you to communicate with others?
- Is it easier to use Facebook to communicate than talking to someone in person? Why?
- Did it help you become more socially active? How did it help?

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