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SOCIAL MEDIA AND INDIVIDUALS WITH COMPLEX COMMUNICATION NEEDS WHO USE AAC

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ABSTRACT

Communication is multimodal, including face-to-face and online interactions. Social media is a growing platform for social access and a way that everyone is communicating and connecting. In this study, 8 participants who use AAC with complex communication needs and 8 college-aged participants without complex needs were recruited through Facebook to observe engagement behaviors. Three months of Facebook logs were analyzed using an engagement framework. The results showed that the most utilized engagement behavior was commenting followed by sharing then producing then curating as the least utilized function. Of all commenting behaviors demonstrated, liking a status/post was utilized the most; 36% of the time out of the 16 commenting behaviors observed. More research needs to be conducted in this area in order to get a better understanding of how to improve this form of communication for individuals who use AAC, as well as development of future trainings. It is important that everyone have access and the knowledge to participate in this form of communication, if they choose.
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Introduction

Social media is a platform used to find the latest news, share information, act as a source of entertainment, and, most importantly, a way to connect with other human beings. In today’s world, “72% of the public uses some type of social media” (Demographics of Social Media Users and Adoption in the United States, 2019, p. 2). When social media first came to be, the main users were young adults, however, in recent years, older adults have continued to raise their involvement in these platforms. Specifically, in March of 2005, 7% of young adults ages 18-29 used at least one social media site while only 3% of older adults ages 65+ did this. However, in February of 2019, 90% of young adults ages 18-29 use at least one social media site as well as 40% of older adults ages 65+ (Demographics of Social Media Users and Adoption in the United States, 2019, p. 3). Among all of the social media sites including Facebook, Pinterest, Instagram, LinkedIn, Twitter, Snapchat, Youtube, WhatsApp, and Reddit, Facebook ranks number 2 in usage right under YouTube. Particularly, in February of 2019, 69% of U.S. adults reported to use Facebook while 73% of U.S. adults reported using YouTube (Demographics of Social Media Users and Adoption in the United States, 2019, p. 4). Although, for young adults ages 18-24, Instagram and Snapchat are particularly popular among this age group with Snapchat at 73% usage by this age group and Instagram at 75% (Perrin & Anderson, 2019, p. 2). Despite this fact, Facebook still leads with 76% usage in U.S. adults ages 18 to 24.

Social media is often used to maintain relationships and socialize with friends. While the majority of Americans who use these platforms benefit from these interactions, the same is not true for all U.S. citizens. Specifically, Stansberry and colleagues (2019) described, “The digital divide will become a more serious problem. Most tech companies will make apps and digital tools for people who easily utilize internet and digital devices and also for English users. This
creates an illusion of ubiquitous internet, but the infrastructure will tend to be made for only those people. This could create huge social problems” (p. 5). Stanberry’s (2019) prediction of the future of digital life is becoming a reality for those with disabilities in U.S. society. According to a survey given in the fall of 2016, Americans with disabilities are about three times more likely to say they never go online than those Americans without a disability (Anderson & Perrin, 2019). In addition, on the survey question “do you have a high level of confidence in your ability to use the internet and other communication devices to keep up with information,” only 39% of Americans with disabilities said this was true, while 65% of other Americans responded ‘yes’ to this question. While social media becomes more and more popular, individuals with disabilities may need support in order to benefit from the social closeness, news, and leisure, in which social media outlets can provide.

**Social Media for Individuals Who Use AAC.** Some individuals with disabilities have limited to no speech. These individuals have a severe communication disorder and are often described as having complex communication needs. These individuals, making up approximately 1.3 percent of Americans, benefit from the use of augmentative and alternative communication (AAC). AAC consists of aided and unaided communication, including writing, sign language, pointing to pictures, and using high-tech equipment with speech output like an iPad with apps (Beukleman & Mirenda, 2013). In addition, AAC can include social media use as a form of communication with a large range of partners. With the use of AAC technologies, these individuals can enhance their lives by connecting with others in a professional way (if needed) as well as socially. More specifically it supports these individuals to “(a) become more persistent in engagement online, (b) become more visible and influential online, (c) grow the audience that they want to reach online, (d) know how to find online connections that work for
them, including locating employment and social opportunities” (Caron & Light, 2016; Bronwyn Hemsley, Susan Balandin, Stuart Palmer & Stephen, 2017; Hynan et al., 2015).

Even though social media is a huge phenomenon in today’s world and there is a lot of research on the use of social media platforms for most individuals, there is not much information on the usage of social media by individuals who use AAC and particularly how these individuals prefer to use these platforms whether for professional development or personal use. A series of qualitative studies (Caron & Light, 2015, 2016a, and 2016b) with a number of individuals who use AAC and different diagnoses and ages (e.g., ALS, CP) have demonstrated there are clear benefits to use of the platform when communicating with AAC. Yet, no research has observed in more detail how these individuals are communicating in these interaction contexts. This information could provide crucial insight into areas of challenges and where training and education is needed. With this information, equality in the benefit of social media for all individuals could be reached.

**Benefits of Social Media Use When Communicating Using AAC.** Caron and Light (2016a) found that young adolescents used social media primarily to keep in touch with family and friends, meet new people, and entertain themselves. Social media was used in a similar way by adults with cerebral palsy. Caron and Light (2016b) found that adults with CP also used social media for purposes of connecting and entertainment, yet they described many more benefits, including: feeling “normal” or “typical” when communicating the same way everyone else done, a tool for getting assistance or getting help (e.g., things around the house, managing PCA care), a way of making communication easier, and gaining independence.

Social media for individuals who use AAC may be a great equalizer in terms of “feeling typical.” One participant, in the study by Caron and Light (2016b) said, “there was a
psychological aspect of being different in one more way (when using AAC). Now everyone uses social media and walks around hooked up to some devices like iPhones, iPads, etc” (p. 30). Instead of being “different,” AAC users are fitting in perfectly with society. In addition, in a Hynan, Murray, and Goldbart (2014) interviewed 25 AAC users including adolescents and young adults, and participants shared that social media provided a means to keep in touch with people and allowed them to express themselves more fully. This, again, provides evidence of the benefits of use of social media when using AAC.

Challenges of Using Social Media When Communicating With AAC. Although social media for AAC users provides extraordinary benefits, these do not come without disadvantages and barriers. Without the proper communication partner support and physical access to a device, social media use for AAC users is nearly impossible. In addition, with possible limited literacy skills and generally less communication opportunities, using social media can be difficult. In a study done by Raghavendra and colleagues (2015) on how effective home-based intervention was to increase social media use in rural Australia, with 8 adolescents and young adults with communication difficulties, Raghavendra and colleagues (2015) found that social media leads to participation yet many parents do not know how to support social media use. Specifically, proper social media use by AAC users does not necessarily come as naturally as it does with non AAC users, but, instead, must be taught by parents and/or service providers.

In addition to the need for training and communication partner support, a number of studies have documented the challenges of use of social media with their current AAC technology (Caron & Light, 2015, 2016a, and 2016b). The technology changes often on social media sites, with updates that can either work or not work with current AAC systems. In addition, as social media site platforms change and update, new features require new learning,
training, and often new motor learning – where things seemed automatic before (e.g., location of icons or certain items you use all the time). Finally, when using alternative access and AAC, things can be very challenging to get the social media cite to “talk” with the AAC technology (e.g., setting up scanning on Facebook or using eye gaze). Rita, an adolescent with cerebral palsy described, “It’s hard to get around on Facebook because I can’t use my switch with it easily” (Caron & Light, 2016a, p. 36).

**Facebook and Facebook Use by Individuals Who Use AAC.** Approximately “seven-in-ten U.S. adults use Facebook according to a survey conducted in early 2019” (Gramlich, 2019, p. 2). In addition, “among U.S. adults who use Facebook, around 745 visit the site at least once daily and the share of those who do is higher than the shares of Instagram (63%) and Snapchat users (61%) who also visit those sites daily” (Gramlich, 2019, p. 2). Not only can one post pictures to a group or specifically to an individual, like Instagram and Snapchat, Facebook users can share petitions, share music via Spotify/iHeartRadio, share memories, share a location, share RSVPs to events, and much more. Specifically, Facebook users have the ability to share purely written content rather than just pictures with captions like on Instagram and Snapchat. In addition, Facebook provides the option to manage discussion boards or support groups unlike most popular social media platforms. Lastly, according to the Pew Research Center, Facebook has been proven popular among all demographic groups regardless of gender, education level, and age.

Consistently across multiple studies, Facebook has proven to be the most popular social media among AAC users. Specifically, with the 3 online focus groups explored earlier including adolescents, young adults, and adults with cerebral palsy and adults with ALS (Caron & Light, 2015, 2016a, and 2016b). In the focus group of adolescents and young adults with cerebral palsy
who use AAC, some of the participants described using Facebook to write posts and message friends/family and others described using the site to view what their friends are posting whether that be photos or written posts. One participant described, “I like Facebook because I can talk to and see pictures of friends and family who live far away, who I cannot see (in person) all the time” (Caron & Light, 2016a, p. 35). In the focus group of adults with cerebral palsy who use AAC, many of the participants described how Facebook allows them to foster independence and self-advocate by contacting people they need via Facebook and getting advice. For example, one participant recalled, “When my wheelchair breaks, I can’t call the company myself to let them know…I am a very independent person…I am would be able to get in touch with my wheelchair man myself” (Caron & Light, 2016b, p. 30). Lastly, in the focus group of adults with ALS who use AAC, participants described how Facebook has allowed them to not only maintain relationships, but they have now expanded their personal networks. Specifically, Facebook has given them the platform to meet other people with ALS. One participant said, “I joined Facebook to meet other people because I can’t get out on my own” (Caron & Light, 2015, pg. 686). Facebook has paved the way for an opportunity at an equal playing field for sharing and connecting between all individuals, despite communication difficulties.

**Engagement Framework.** Use of social media has brought about changes to communication environments, contributing new contexts for engagement. Li (2010) proposed a framework for organization and consumer engagement on social media, which included five components: (1) watching, (2) sharing, (3) commenting, (4) producing, and (5) curating. In an article written by Caron in 2016, Caron applied these five engagement activities to social media use by individuals who use AAC.

**Current Study.** The current study aimed to analyze the data according to the engagement
framework. Although there is research that supports the benefits and challenges to AAC, no research currently uses observational methods. All research uses interviews or focus groups to gather first-hand accounts as to personal opinions and experiences. Observations can support noninvasive data collection in natural environments helping researchers to identify common behaviors. Due to the limited research on this topic as well as the importance of social media for individuals who use AAC, the current study aimed at use of observational data, of 3 months of Facebook data, to observe trends in behaviors across participants within the context of online engagement.
Method

Research Design

Qualitative Research is used in education to “collect in great details the understanding of the human behavior, and the result that led to such particular behavior” (Oun & Bach, 2014, p. 253). Qualitative Research allows researchers to “collect sense data about the phenomenon under the study and works on them in some way organizes, and hold them up against ideas, hypotheses, and categorical definitions as a way of testing them” allowing “a small number of participants to be legitimate as source of information” (Oun & Bach, 2014, p. 253). A qualitative design was selected for a number of reasons including a method of determining how and why behaviors are happening. In order to observe a natural environment in the least invasive possible way, the qualitative design method was the perfect design to use. We did not want observer bias specifically because “the presence of an observer and the participants being aware of his presence may set some sort of limitation to the process due to the possibility of participants changing behavior when they feel they are being observed” (Oun & Bach, 2014, p. 255). We were able to increase our sample size using qualitative data because we did not need to just observe people local to us but, instead, all over the united states.

Observations allow the researchers to test their hypotheses in the least invasive and most reliable way possible. Specifically, “Careful research seeks conceptual understanding, poses empirically testable and refutable hypotheses, uses observation methods that can be replicated, and recognizes the value of transportability and generalizability… using observational methods linked to theory that allow fellow researchers to trace the links between the data, interpretation, and conclusions reached in any study (Kozleski, 2017, p. 20). In this specific study, we as researchers have certain ideas about how our participants use social media, however,
observations allow us to answer these hypothetical questions with real, reliable data. Since there is minimal research about the benefits and limitations of social media use for adolescents and young adults who use AAC, gathering observations within this group was the perfect way to see first-hand what the actual usage is for these individuals. With interviews and online focus groups, one can only learn so much without the raw data. By using observations, we were able to analyze the whole picture and pick out sub groups and common behaviors to highlight important targets to later be identified in the research (Oun & Bach, 2014). Specifically, in this study, we could categorize the data to highlight common Facebook behavior. These observations were used to gather information in a natural setting in Facebook. We did not interact with the researcher at all during this study while doing these online observations.

**Participants**

The participants were recruited through Facebook and were individuals who used AAC with complex communication needs. The inclusion criteria was that they had to use an AAC system, be able to read and write as screened as an email to the researcher, had to be on Facebook, and use Facebook independently.

Four participants used in this study were part of a larger study of 16 participants. The four participants meeting this criteria in this research paper ranged in age from the mid-twenties to about 50. They are two males and two females. Most of the participants reported that they taught themselves how to use Facebook. Each participant uses a different AAC system including Accent 1400, DynaVox VMxx, and an iPad with an AAC app. The time frame the participants use Facebook ranges from about an hour to 4 hours. All participants have over 300 friends but less than 1000.
No materials were provided during these observations. The individuals were using Facebook as they always do. As described in the procedures, the procedure to collect the data was use of Facebook Activity Log.

**Procedures**

The individuals were told to scroll through on their Facebook page for three months of...
Facebook posts when they entered the study. In addition, they were told to create a PDF of the Facebook log and to share that with the researcher. A research assistant then de-identified the logs by taking away personal info. The logs were then coded by a research team.

 Measures

An apriori coding scheme was developed and was used to develop common themes. The engagement framework suggests that the “fundamental idea underlying engagement theory is that students (patients/learners) must be meaningfully engaged in learning activities through interaction with others and worthwhile tasks” (Caron, 2016, p. 500). Specifically, the coding system in this study includes the five components of “watching, sharing, commenting, producing, and curating” (Caron, 2016). An apriori coding scheme is common in qualitative research because it “offers specific terms that would give the data a voice” (Blair, 2016, p. 19). They also allow researchers to have no questions to what they are looking for in their data leading to a great validity to their research. Any one person can code the data and should receive the same result due to a closed set of criteria.

Each Facebook log was coded based on the engagement framework. It specifically looked for the following. It was coded for number of photos posted, comments, tags, status updates/shared posts, and likes.
Results

The results section will be broken down into the social media engagement framework for individuals who use AAC (Caron, 2016), including: watching, sharing, commenting, producing, and curating. Results will be presented with totals across 8 participants (from the larger study), as well as individual analysis of 4 participants (for the purpose of this research experience). Additional data, following the same procedures, of 8 college students was gathered in order to have a comparison and support findings or observations for the discussion section.

Watching

Watching behaviors are defined as “consuming and absorbing content…yet not actively participating in conversations and interactions with communication partners” (Caron, 2016). These behaviors included: viewing timelines, lurking, or reading content. Although these behaviors were not able to be observed from the Facebook logs, participants reported they spend approximately one to two hours reading posts without liking or commenting on them.

Sharing

Sharing behaviors are defined as “distributing information and material and involves a medium level of engagement behavior, with some interaction with others” (Caron, 2016). These behaviors included: sharing a post, sharing via Instagram, sharing via Pinterest, sharing a played game, sharing a petition, sharing music via Spotify/iHeartRadio, sharing a memory, sharing a trending topic, sharing a location, and sharing a subscription to events/groups. A total of 1,839 sharing behaviors were observed across all the participants, with the most sharing behavior of sharing music via Spotify/iHeartRadio and the least of sharing a location. See Figure 1.
Analysis of 4 individual participants. HT shared a petition 57 times in 3 months, the participant’s greatest sharing activity, followed by sharing via Pinterest 12 times, sharing a post 4 times, sharing a subscription to an event 1 time, and sharing via Instagram 1 time. HT never shared a played game, music, a memory, trending topic, or a location. SF shared a post the most times: 14 times in 3 months, followed by sharing a subscription to an event 1 time. SF did not exhibit any other sharing behaviors. DC shared a played game 121 times in 3 months followed by sharing a post 11 times and sharing a subscription to a group 1 time. DC did not participate in any of the other sharing behaviors. LA shared a post 35 times in 3 months, the greatest sharing behavior, and shared a subscription to a group once. LA did not exhibit any other sharing behaviors. See Figure 2 for a visual of the individual participant results.
Commenting

Commenting behaviors are defined as “responding to others’ content and contributing ideas” (Caron, 2016). These behaviors included: commenting on a post, replying to a comment, commenting on a photo/video, adding a new friend, liking a page, liking a status/post, liking a photo/video, reacting to a post/photo, liking a comment, reviewing a page, liking a product, RSVPing to an event, tagging in a post, tagging in a photo, initiating tag in photo, and initiating tag in post. A total of 9,013 commenting behaviors were observed across all the participants, with the most commenting behavior of liking a status/post and the least of reviewing a page/liking a product. See figure 3.
**Analysis of 4 individual participants.** HT utilized the “liking” function the most, for a total of 140 times in 3 months. She then used the reacting feature for a total of 97 times followed by commenting 77 times. HT tagged the least amount of times: 35 times in 3 months. SF demonstrated the “liking” behavior the most, for a total of 462 times in 3 months, followed by commenting 174 times. The two least used functions were tagging, for a total of 86 times and reacting, for a total of 58 times in 3 months. DC used the “liking” function the greatest amount of times, for a total of 366 times in 3 months. He then used the “commenting” feature 86 times followed by reacting 52 times. Tagging was used the least, for a total of 29 times in 3 months.
LA utilized the “liking” feature the most, for a total of 1400 times in 3 months, followed by commenting 587 times. He then reacted 58 times and tagged only 36 times, which was the least used function. See Figure 4 for a visual of the individual participant results.

Figure 4. Graph showing results of commenting behaviors across 4 participants

Producing behaviors are defined as “creating and publishing your own material” (Caron, 2016). These behaviors included: updating a status, posting a picture/video, posting a wall post, posting in a group, posting a feeling, adding a life event, and updating a bio. A total of 750 producing behaviors were observed across all the participants, with the most producing behavior of posting a wall post and the least of adding a life event. See figure 5.
Analysis of 4 individual participants. HT posted a picture/video the most, for a total of 36 times in 3 months. She updated her status/bio a total of 4 times and did not exhibit any of the other producing behaviors. SF also posted a picture/video the most, for a total of 12 times in 3 months. She updated her status 4 times followed by posting in a group 3 times posting a wall post 2 times. SF did not publish any other material. DC posted a wall post the most, for a total of 20 times in 3 months. He also updated his status 10 times followed by posting a picture/video 9 times, posting in a group 1 time and updating his bio 1 time. DC did not add a feeling or a life event. LA also posted a wall post the most, for a total of 125 times in 3 months. He posted a picture/video 14 times followed by updating a status 10 times and posting in a group 9 times. LA did not add a feel, life event, or update his bio. See figure 6 for a visual of the individual participant results.
Curating

Curating behaviors are defined as “running and managing content” (Caron, 2016). These behaviors included: managing a discussion board and managing a support group. None of the 8 participants exhibited any of these behaviors.

Non AAC Participants

In addition to the 8 AAC participants, 8 college-aged students who do not use AAC were recruited for this study. These non AAC users demonstrated sharing, commenting, and producing behaviors. A total of 17 sharing behaviors were observed across all the participants, with the most sharing behavior of sharing a post and the next most observed behavior being sharing a subscription to an event/group. None of the other 8 sharing behaviors were exhibited among these non AAC users. See figure 7 for a graph on the sharing behaviors. Next, a total of 2,005
commenting behaviors were observed across all the participants, with the most commenting behavior of liking a status/post and the least of RSVPing to an event. In addition, reviewing a page and liking a product were not performed, however, poking was an additional behavior added to the non AAC users commenting activity. See figure 8 for a graph on the commenting behaviors. Lastly, a total of 106 producing behaviors were observed across all the participants, with the most producing behaviors being posting a picture and the least being updating a bio. The producing behaviors of adding a feeling and adding a life event were not exhibited. See figure 9 for a graph on the producing behaviors.

*Figure 7. Graph showing results of sharing behaviors of 8 college-aged students*
Figure 8. Graph showing results of commenting behaviors of 8 college-aged students

Commenting

- Commenting on a post: 4%
- Replying to a comment: 2%
- Commenting on a photo/video: 6%
- Adding a new friend: 5%
- Liking a page: 4%
- Liking a status/post: 11%
- Liking a photo/video: 13%
- Reacting to a post/photo: 13%
- Liking a comment: 4%
- Reviewing a page: 6%
- Liking a product: 5%
- RSVPing to an event: 4%
- Tagging in a post: 16%
- Tagging in a photo: 2%
- Initiating tag in photo: 5%
- Initiating tag in post: 11%
- Poking: 1%

Figure 9. Graph showing results of producing behaviors of 8 college-aged students

Producing

- Updating a status: 34%
- Posting a picture/video: 55%
- Posting a wall post: 5%
- Posting in a group: 0%
- Posting a feeling: 0%
- Adding a life event: 0%
- Updating a bio: 1%
**Discussion**

The above findings represent the results of 8 individuals who use AAC. Findings support that social media can be used by individuals who use AAC to support maintaining friendships and connecting with other human beings. More specifically, the most used social media behavior was commenting.

**Watching**

Although watching can’t be observed, all individuals reported they spend approximately 1 to 2 hours per day on Facebook. This is consistent with findings from Pew Researchers (Perrin & Anderson, 2019), which report in a study from a 2019 study that 51% of U.S. adults visit Facebook several times a day, 23% visit about once a day and 26% visit a few times a week, every few weeks, or less often. This has remained constant since 2018.

**Sharing**

Sharing is defined as “distributing information and material and involves a medium level of engagement behaviors, with some interaction with others” (Caron, 2016). Sharing was the second most frequent behavior observed by the participants. Overall, across the 8 participants, sharing a post the most was the greatest sharing behavior. It must be noted that, on the graph, it appears as though sharing music via Spotify/iHeartRadio has the greatest percentage of all the sharing behaviors. However, this activity was only done by 2 of the 8 participants. Of the 4 participants further analyzed, the observed behavior varied with sharing a post for SF and LA, sharing a played game for DC, and sharing a petition for HT.

Sharing is often more favorable for AAC users since it does not require as much functional application. According to Caron and Light (2015), sharing is notably worthwhile for individuals who use AAC, since rate of communication and overall operational drawbacks
frequently lessen participation in communication exchanges. Specifically, with the simple click of a button, an AAC user can share content of interest, the latest news, or photos to their Facebook friends for them to see and possibly provide commentary. An adolescent with CP who uses AAC described, “I like that you can show off (and share) your favorite things…then other people with similar interests can comment on what you have shared about yourself” (Caron, 2016a, p. 35). In regard to finding news, according to Pew Research Center, “Facebook is a pathway to news for around four-in-ten U.S. adults” (Gramlich, 2019, p. 5). By using the sharing feature, news is easy to access for all.

In addition, in a study done by Hoffman and Novak of George Washington University School of Business, they found from “a total of 1700 social media goal verbatims” that “a smaller set of 27 more general social media goals were either classified as social or non-social” (Hoffman & Novak, 2012, p. 12). Furthermore, the social goals included “sharing pictures and videos with family and friends” and the non-social goals included “reading the news, learning about popular events, listening to music, etc” (Hoffman & Novak, 2012, p. 13). This research highlights some of the sharing activities that were looked upon in this current study, proving that people are actually participating in this medium level form of engagement.

Sharing was the second most used engagement behavior for the AAC users but came in third behind commenting (1st) and producing (2nd) for the non AAC user group. This could be explained by the idea that sharing “in contrast to the commenting or producing of your own content involved in other social media activities requiring text generation and therefore increasing the linguistic, social, and operational demands during the communication exchange” (Caron, 2016, p. 502). Specifically, out of the 8 participants, only 2 of them used touch enter while the other individuals used either letter/word scanning, a tracker, or their index finger.
Using these means of access requires more operational demands, and, therefore, might have deterred these individuals from using the producing feature.

**Commenting**

Commenting is defined as “responding to others’ content and contributing ideas” (Caron, 2016, p. 503). Commenting was the most frequent behavior observed by the participants. Overall, across the 8 participants, the participants utilized liking a status/post the most. Of the 4 participants further analyzed, HT, DC, and LA all demonstrated liking a status/post the most while SF used the “liking a comment” feature the greatest amount of times.

Commenting is a behavior involving 2 demands: to receptively understand what someone is trying to communicate and to respond accordingly. Therefore, commenting increases the level of engagement from somewhat passive (sharing) to somewhat active. However, this skill, as Caron (2016) describes, “can provide similar advantages to the communication context through sharing with ‘one click’ interaction. ‘Liking,’ ‘favoriting,’ or ‘rating’ content are all examples of such an interaction” (p. 502). This aligns with the reason why commenting is the most frequently used engagement behavior among AAC and non AAC users. By having the opportunity to simply click a button in order to acknowledge a friend’s post/picture or by also having the option to add unique commentary gives the social media user a wide range of opportunity at social interaction.

According to another study done by Hoffman and Novack (2012), “those whose primary social goal is to connect (26% of participants) are happiest when pursuing goals involving person-interaction” (p. 19). Commenting allows AAC and non AAC users to connect via human to human interaction. An individual with Cerebral Palsy who uses AAC and social media described, “sometimes even just hitting ‘Like’ feels like enough to just remind people ‘Hey, I’m
here and involved” (Caron, 2016, p. 503). Although commenting is defined as a more active level of engagement, commenting includes the liking feature. Specifically, liking a status/most was used the greatest percentage (16%) of the time for non AAC participants. Furthermore, the liking feature was used the most among both AAC and non AAC participants. However, it must be noted that tagging was the second most utilized behavior for the non AAC participants but was the least used function for most of the participants who use AAC.

**Producing and Curating**

Producing and curating are higher level skills that support. They are “creating and publishing your own material” and “running and managing content” (Caron, 2016, p. 503). These require strong literacy skills, as well as social skills to navigate and control multiple conversations.

**Clinical Implications**

Since the future of digital life is only growing and expanding, SLP and AAC teams must teach individuals with complex communication needs new skills or greater mastery in certain skills in order to facilitate more social communication via social media. Based on the current study, the 8 participants who use AAC utilized the commenting function the most, therefore, their goals on social media must have been social. However, liking a post/comment only goes so far. For the non AAC users, tagging was a prominent behavior. Tagging a friend in a funny meme, a picture, or a link to an activity of interest to do together can connect all individuals on a deeper level than just liking a post. By tagging someone else in a photo or post, the tagged individual will most likely comment their reaction, leading to a bond between the tagger and the tagged. In order to teach this skill, SLP and AAC teams can have learners tag 3 of their Facebook
friends in memes 3 times per week for 3 weeks. Or, learners can be told to upload a photo album of 5 pictures of their friends and utilize the tagging feature for tagging the people in the photos.

Since no curating behaviors were seen in both the non AAC users and the AAC users, Facebook creators should be more informative on how to run a discussion board or online support group. For example, Facebook could make “discussion board” a function in the functions listed in the “create post” box that appears at the top of the home page. These curating functions are an easy way to bring individuals with similar interests together, so this function should be taught and utilized more by all people. Since social media is now a fundamental way for people of all backgrounds to connect without needing to have a face to face conversation, learning and mastering more skills on Facebook are just a part of the puzzle in providing access to individuals with CCN.
Conclusion

“Social media allow people to connect - and re-connect – sometimes over large distances, offer opportunities for self-expression that may not always be possible offline, provide opportunities for learning and information sharing that are unprecedented, and support users’ needs to control their online experiences” (Hoffman & Novak, 2012, p. 4). Hoffman and Novak explain many of the functions social media provides for individuals who use AAC; the ability to connect with people without being face to face, a place to express oneself without needing to use speech to communicate, learn new information from their peers, and have complete control over their usage. In the study above, 8 participants who use AAC with complex communication needs and 8 college-aged participants without complex needs were recruited through Facebook. Using observation, three months of Facebook logs were analyzed based off of an engagement framework. Based on the results, the most frequently utilized engagement behavior was commenting. Sharing was the second most utilized engagement behavior then producing then curating as the least used. Out of the 16 commenting behaviors observed, liking a status/post was utilized most frequently; exactly 36% of the time. In order to provide the most benefit to individuals who use AAC, more research must be done in the area of AAC and social media to support these individuals with this type of communication. All individuals, despite their communication needs, should have the choice to access and become knowledgeable about communicating through social media.
References


Caron, J., & Light, J. (2016b). Social Media has Opened a World of ‘Open communication:’” experiences of Adults with Cerebral Palsy who use Augmentative and Alternative


ACADEMIC VITA

Melanie Schwartz

Education

The Pennsylvania State University, University Park, PA
- Bachelor of Science (expected): Communication Sciences and Disorders, Minor: Human Development Family Studies
- Schreyer Honors College

Expected Graduation: May 2020

Experience

Schreyer Honors Thesis, University Park, PA
- Researcher
  - Conducted AAC research on individuals with Cerebral Palsy and their social media usage.

Community Education Extended Learning Program, University Park, PA
- Staff Member
  - Supervised and participated in afterschool care for elementary aged students.

September 2018-December 2019

Lifetime Fitness, Fort Washington, PA
- Camp Counselor
  
June 2019-August 2019

LifeLink PSU, University Park, PA
- Academic Mentor
  - Mentored a college-aged student with down-syndrome on various reading and writing activities.

September 2017-May 2019

J Evans Human Services, Philadelphia, PA
- Speech Therapy Intern
  - Observed and assisted in speech therapy with stroke and brain injured patients in a hospital setting.
  - Mentored two high school students and advised them through the college application process.

June 2018-August 2018

Theraplay, Dresher, PA
- Speech Pathology Observer/Assistant
  
June 2017-August 2017

Fort Washington Swim and Tennis, Fort Washington, PA
- Tennis Instructor
  
June 2015-August 2017

Village School House, Dresher, PA
- Preschool Camp Counselor
  
June 2014-August 2014

Leadership

Jewish Heritage Program, University Park, PA
- Planned social events to bring the Jewish community together.

January 2018-December 2019

Alpha Omicron Pi, University Park, PA
- Served as Greek Sing Chair, Academies Committee member, Chapter Development Committee member.
- Led study hours for members with below average GPAs.

January 2017-Present

Teaching Assistant, University Park, PA
- Assisted professor with grading assignments in an Intro to Human Development and Family Studies course.
- Led review sessions for students

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