Abstract

Social Media Use and Media Literacy in Relation to Children's Understanding of the Internet

by

Kasey L. Powers

Adviser: Patricia J. Brooks

Digital media has permeated American culture with users of mobile technology from adults all the way down to infants. By early adolescence, youth are using and consuming media at unprecedented rates. The majority of content consumed is still television and movies although now often via streaming through new channels like Amazon and YouTube. Video games and apps also make up a portion of the media diet. As youth enter adolescence, social media, defined as any platform that allows interactive communication in response to online posting, becomes more important.

In this study, I explore research in media use and its effects and youth's understanding in three areas: media literacy, social understanding, and technical understanding. Media literacy research and education is approached from protectionist or empowerment perspectives and often under three core domains necessary for the critical evaluation of sources and information: 1) authors and audiences, 2) messages and meanings, and 3) representation and reality (Hobbs, 2006). Research as to how youth understand the social complexity of the Internet shows that youth are often able to develop and maintain social relationships through digital media and navigate the social complexity in quite sophisticated ways (Livingstone et al., 2011). Research as to how well children understand the technical complexity of the Internet has shown that children have a limited understanding as to how the Internet works and the complex connectedness of the network system (Yan, 2006).

The current study adds to the extant literature by building on prior research with a snapshot of children's understanding of the complexity of the Internet in the current digital landscape as well as considering the media environment which continues to rapidly evolve. This study examines children's media literacy skills, their understanding of the social complexity of the Internet, and their understanding of the technical complexity of the Internet, with the intent to use the results to direct future work in understanding what children know and how best to teach them in areas where they are lacking. In addition, an educational animated video, created specifically for this research, was used to teach youth how information dissemination though the Internet works as well as the technical complexity of the Internet as a network. Through a pre-test, post-test design I evaluated the potential for animated instructional videos as a way to enhance students' understanding of the technical complexity of the Internet and how information is shared, saved, and stored.

Students were recruited and interviewed at a rural middle school (N=78, range 11-15 years). All students were given an online survey with questions about their media ownership and use, including questions specifically about social media and media literacy. Interviews assessed students' understanding of the durability of online communication as it pertained to image and document sharing through social networks. Through drawings and vignettes students were asked to explain what the Internet looks like, how files travel, and how they consider potential real world consequences of online actions. In a second interview session, students were shown the animated video and given a chance to update one of their drawings to include newly learned information. I hypothesized that prior to exposure of the video, pre-adolescent youth would show limited understanding of the digital life of photographs and other documents posted to social

networks as well as the consequences of appropriating Internet-based documents for academic use.

Analyses examined media literacy in relation to self-reported social media usage and demographic characteristics. Media literacy was related to students' academic grades with students who reported higher grades performing better on the media literacy scale. Social media use and multi-tasking were negatively correlated with media literacy. The media literacy scale showed only moderate internal validity and factor analysis revealed three distinct clusters of questions, suggesting that media literacy should not be interpreted as a single variable, but rather as a constellation of concepts pertaining to media usage and design.

Responses to questions about social complexity of the Internet showed that about two-thirds of the students understood that information posted or sent on the Internet is long lasting and that it becomes out of the control of the original poster. Most students were aware of potential risks to putting things online; however, how they characterized the risk seemed to be largely context specific. While students generally showed an awareness that their online actions had far reaching consequences, this was not related to how well they understood the technical complexity of the Internet.

Students' drawings of the Internet were categorized into levels of sophistication of understanding. Understanding of the technical complexity of the Internet was fragmented with no correlation across drawings. Students who drew a sophisticated network in the first drawing were just as likely to have their second or third drawings categorized as "minimal understanding" rather than showing a similar sophistication of the first drawing, despite the drawings completion just minutes apart. Other students may have first drawn the Internet as a website, but then have shown a more complex understanding of connectedness in the second or third drawing. This

fragmentation suggests that understanding of the complexity of the Internet is very context specific and that youth are not necessarily thinking deeply about their actions. Social media use was also not related to students' drawings of the technical complexity of the Internet. Students did benefit from viewing the animated video and seemed to enjoy it. Analysis of student drawings after they were given a chance to make changes after viewing the video showed a significant shift to a more sophisticated level of understanding of the technical complexity of the Internet.

When thinking about how to increase students' Internet skills and their understanding in how to navigate the Internet, researchers and educators must first determine what skills are important under this umbrella term "media literacy." Curriculum should be targeted to specific skills or domains and measured individually.

Keywords: media literacy, digital literacy, concept development