Adolescent and family development:
Autonomy and identity in the digital age

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Abstract. Adolescence is a time when youth are faced with multiple tasks that intersect and influence one another, e.g., increased desire for autonomy, salience of identity issues, peer orientation, self-focus and self-consciousness, and a continuing need for a safe environment in which to explore autonomy and identity. These all occur in a dynamic ecosystemic environment, which in the past would have mostly included family, peers, and school, but today also includes cyberspace as both a system, and a means to interact with many other systems through the use of multiple forms of information technology (IT). This paper uses the voices and experiences of 128 adolescents, captured in qualitative interviews, to look at autonomy and identity in the digital age as they talk about their parents vis à vis their use of IT. Thematic analysis revealed two major themes: 1) Adolescents spoke of their expertise. In particular they commented on their knowledge to repair equipment, ability to use IT well, their sense of pride in their own ability and their parents' acknowledgement of this ability. 2) Subjects perceived little need for their own supervision, but assessed that other adolescents and younger children needed to be watched closely by their parents. Implications of this work are discussed.

Keywords: Adolescent development, Autonomy, Identity, Information technology, Qualitative research

1. Introduction

Adolescence is often portrayed as a time of “storm and stress,” both for the individual adolescent and for his/her family (Harold, Colarossi, & Mercier, 2007). Much has been written about the influence of hormones and peer groups during this developmental period (e.g., Huang, Unger, Soto, Fujimoto, Pentz, Jordan-Marsh, & Valente, 2014; Steinberg & Levine, 1997), about relationships with parents (e.g., Koepke & Dennisen, 2012; Luster & Okagaki, 1993), and about the tasks of separating and individuating (e.g., identity vs. role confusion; Erikson, 1986). There are multiple influences on this period of transition that adolescents and their families experience, both within the adolescent (Steinberg, 1985) and within the context in which the adolescent develops (Crockett & Crouter, 2014; Vaterlaus, Beckert, Tulane, & Bird, 2014). In simpler times, this ecosystemic context or environment was primarily made up of the family and the school as the common denominators, but today’s adolescents are involved with multiple systems, including cyberspace as both a system, and a means to interact with many other systems through the use of multiple forms of information technology (IT).

During this developmental period, many factors impact adolescents including biological changes associated with puberty, cognitive changes associated with more sophisticated thinking abilities, new psychosocial demands in their peer relationships, identity development, and changes in social roles as well as such environmental transitions as moving into the work world, and in later adolescence, moving away from the family of origin. In addition, there are educational changes as teens enter middle and/or high school, and higher education, and legal changes as they attain certain statuses. The Internet has added yet another, more pervasive change, in that alternative sources of information are now available to teens, where parents and teachers used to be the primary sources and gatekeepers of information. In sum, adolescence is a

time when youth are faced with multiple tasks that intersect and influence one another, e.g., increased desire for autonomy, salience of identity issues, peer orientation, self-focus and self-consciousness, and a continuing need for a safe environment in which to explore autonomy and identity (Barth, 2014; Harold et al., 2007), all occurring in a dynamic ecosystemic environment (Bronfenbrenner, 1986). This paper uses the voices and experiences of adolescents themselves to look at autonomy and identity in the digital age as they talk about their parents vis à vis their use of IT.

2. Background

The supposition has been that by the time individuals become parents, most of them will successfully have completed all prior developmental tasks and will understand how to guide their children; that they will have expertise in how to communicate around the struggles and joys that teens experience; and that they will have greater skill set than their children possess, from which children learn and against which they sometimes rebel. In today's digital age, this may not always be true. Today's adolescents were born after the advent of the Internet. They have never known a time when almost any information could not be gleaned from the computer, when friends and families were more than a nanosecond away by cell phone, texting, social media sites, or when IT was not used in every aspect of their lives. Adolescents use technology up to 9.25 hours per day (Katz, Felix, & Gubernik, 2013). In fact, in one study, most adolescent girls reported having at least one friend that they interacted with almost completely online (Levine & Stekel, 2016). Furthermore, they have grown up using IT in a way that is second nature to them. They are the masters, and for most of them, their parents are far less knowledgeable in this domain. One study found that two thirds of adolescents feel that they are the "expert" when it comes to technology in their family (Fletcher & Blair, 2016).

This reverse in expertise, i.e., parent as student, adolescent as expert, may be a blip in time as the teens of today will become the parents of tomorrow and will take their expertise with them. Although IT is always changing, and adolescents are often on the cutting edge, it has been argued that this change, from the more passive technology, such as TV and even early video games to the interactive technology of today is more dramatic than any other technological or media change of the past (e.g., radio to movies to TV to video games). But even if it is just a short-term phenomenon, it is interesting to speculate on how the role reversal in this area may impact or complicate the adolescent's drive for autonomy and identity.

There is no consensus on what autonomy for teens should look like (Silverberg & Gondoli, 1996). Independence, distancing, and separation/individuation vary widely between families and across cultures. Some research (Goldstein, Davis-Kean, & Eccles, 2005) has shown, however, that there are autonomy-related factors during early adolescence that appear to have considerable impact on later development. It is difficult to define the best place on the autonomy spectrum, but it probably is not at one end or the other. Goldstein et al. (2005) concluded that when parents permit too much freedom, their young adolescents may be at risk for being involved in a negative peer context, but this may also be the case if they are overly controlling. Maintaining open communication, slowly introducing more and more freedom, and helping teens learn decision-making skills through discussions and negotiations with parents while their peer relationships and activities are still being monitored, may be a helpful strategy for families with early teens. Many parents feel uncertainty about navigating these waters with their children, especially in areas with which they have less familiarity.

Such is the case with IT. Many parents feel less than adequately able to properly protect their children from dangers that they know or imagine exist on the Internet (Quigley & Blashke,

2003; Fletcher & Blair, 2014; Villani, 2001). Parents often find themselves in a dilemma, where they want their children to have access to computers and the Internet for learning, but want them to be restricted from inappropriate materials, without the know-how to do so (Subrahmanyam et al., 2001). In an early benchmark study completed by the Annenberg Public Policy Center, research found that many of the policies and programs enacted to impact children's access to IT have little effect (Schmitt, 2000). Many parents are concerned about what their teens do online, but have little knowledge about how to monitor or protect them. For example, in one study 94% of parents reported that they have talked to their teen about what is appropriate to share online, but only 39% used any form of parental block on that sharing (PEW, 2016).

Although new means have been developed to allow parents to have a better sense of their children's IT experiences, adolescents were and still are able to gain autonomy and circumvent parental authority through the use of technology (Quigley & Blashke, 2003). A recent study found that one in three surveyed parents of adolescents, aged 13-17, knew their child's password for social media sites, and only 60% ever checked their teen's social media profile (PEW, 2016). In addition, IT allows adolescents to become more resistant to traditional methods of socialization employed by parents, due to their increased access to a diversity of information and opinions, their sense of belonging to a global technology community, their ability to have a great level of control over their experiences (at least while online), and the sense of role-reversal mentioned above, where they are the experts in the technology world, and their parents often need to seek their knowledge and guidance (Boneva, Quinn, Kraut, Kiesler, & Shklovski, 2006; Holmes & Russell, 1999; Patchin & Hinduja, 2010; Seal-Wanner, 2007; Subrahmanyam & Greenfield, 2008; Tapscott, 1998).

The size of the Internet continues to grow (it doubles in size every year) and it is predicted that by 2020 more than 90% of all materials such as images, sounds, and 3D worlds will be available on the Internet for free or for a small fee (Biocca, 2000). With this greater degree of diversity, the opinions of parents may have less credibility with adolescents than ever before. People are also attracted to the Internet by the ability to communicate with other people (Biocca, 2000; Bryant et al., 2006; Mikami et al., 2010; Valkenburg & Peter, 2009). These online interactions, and the resulting relationships that are sometimes created, are for some youth the first relationships formed outside of the family and community in which they live, and therefore may be important steps in individuation and identity development (Patchin & Hinduja, 2010; Quigley & Blashke, 2003).

Because adolescents can find information on nearly any subject, and connect with people with the same interests (but perhaps from diverse backgrounds), the Internet can assist adolescents in the formation of a personal cultural identity, possibly different from that of their family of origin (Holmes & Russell, 1999; Patchin & Hinduja, 2010). During a developmental period characterized by the need to differentiate from parents, seamless access to different, and quite possibly contrary, viewpoints might seem very attractive, and result in lower efficacy of traditional socialization methods (Holmes & Russell, 1999). The gap between the pre-IT generations and the net generation may encourage adolescents to identify more strongly with “virtual” friends and other tech-savvy people, which may have an effect on their own sense of identity, and their place in their family system.

The ability for adolescents to engage with a diverse population of people as peers also illustrates an empowering of youth that may make them more resistant to traditional methods of socialization. The structure of the Internet is one of a shared delivery system, which adolescents

find much more empowering than traditional hierarchical systems, where they have little voice in what is presented or shared (Tapscott, 1998). Applications and environments on the Internet that allow for shared interaction, which fosters shared power, are among the most popular with adolescents (Biocca, 2000). Traditional methods of socialization, such as religious and educational systems, espoused institutional power (Thompson, 1994). Previous forms of media were also power-centralized, with broadcasters and TV networks making decisions about what was to be offered, and parents often making decisions about what children and adolescents were allowed to see (Holmes & Russell, 1999). New IT applications have decentralized power, and created environments where adolescents are free to develop aspects of their identity without institutional control (Holmes & Russell, 1999).

How do adolescents see their parents interacting with them around the use of IT? Does the expert role that many see for themselves speed their sense of being autonomous from their parents? Do they feel *parentified* in the sense of being teachers to those who are older, and also suggesting guidelines and rules for those who are younger? On the one hand, are autonomy and identity formation impacted by the newfound expertise? And on the other, does access to the broader world and diverse information and values impact how youth create their identity? A qualitative research study funded by the National Science Foundation, provides some insights into these questions from the voices of the adolescents themselves.

3. Methods

3.1. Sample

Four, Midwestern, middle schools were included in the study: one urban (50% of the sample), two rural (38%), and one suburban (12%). More interviews were scheduled at the suburban school but time constraints due to the school academic calendar, and accessibility

issues determined by school administrators, curtailed the interview process. It also became clear as the study progressed that additional interviews at the other schools were not needed due to exhaustive and repetitive descriptions provided by the students. Following approval from the University's Institutional Review Board for research involving human subjects, students who participated in the quantitative portion of this NSF-funded study that focused on an ecological systems approach to examining the impact of IT on adolescents, were asked if they would like to participate in an interview about their technology use and its impact on their lives. One hundred twenty eight eighth-grade students were interviewed in this qualitative study.

Demographic data were collected from the 128 students: 42% (n=54) were male and 58% (n=74) female. The race/ethnicity distribution in the urban population was diverse (51% white/Caucasian, 32% African American, 10% Latino(a)/Hispanic), but the suburban and rural schools were approximately 95% white/Caucasian. These characteristics reflect the community populations from which the samples came. The four communities were similar in religious preferences, predominantly self-described as Catholic or Christian.

3.2. Design

The study was designed to allow 13-15 year old students the opportunity to offer their own insights into multiple aspects of IT. A semi-structured interview protocol was created and focused on the students' access to and use of technology, comfort level and concerns with technology, level of IT skill, and relationship dynamics (Echevarria-Doan & Tubbs, 2005; Marshall & Rossman, 2006; Smith & Osborn, 2003). The interview included a pre-set format of questions to guide the interview and allowed for prompts to expand the verbal response of these students. Interviews were conducted by four individuals, trained clinical social workers with strong interviewing skills. Interviews were digitally recorded over the course of three months and

later transcribed. Demographic information included the age, gender, race, and religion of each student.

3.3. Coding

Researchers, independently and randomly, selected three transcribed interviews to study for initial coding. Each transcript in its entirety was treated as data. In this process, emergent themes were identified and then discussed among the researchers. Additional transcripts were examined and a list of themes agreed upon. All interviews were then uploaded to QSR NVivo (QSR, 2007) software and relevant quotes assigned to a theme or themes. This was done in pairs to increase inter-rater reliability. The development of themes and subsequent assignment of data to those themes was a result of an interactive process between the researchers' initial assumptions and the attribution of meaning by the student participants (Berg, 2007; Lofland & Lofland, 1994). The themes were well represented within the transcripts and reflected the understood meanings that threaded the participants' accounts rather than the researcher's expectations.

3.4. Analysis

This study included a descriptive statistical content analysis using SPSS software and Microsoft Excel, as well as qualitative analysis using QSR NVivo software to conduct thematic comparisons. The analysis of the qualitative data with its themes and patterns, was achieved through the use of thematic analysis (Clarke & Braun, 2013). Since this study was focused on qualitative analysis, special precautions were taken to ensure the validity and trustworthiness of the results.

3.5. Validity and Trustworthiness

Validity and trustworthiness (Johnson, 1997; Marshall & Rossman, 2006) were addressed in several ways beginning with an audit trail. This was a particularly key element toward the trustworthiness of this project, as four researchers needed access to the most updated and accurate study elements without jeopardizing the integrity of the data. Researchers invested time into processing and defining concepts and building consensus for the specific purpose of maximizing uniformity in the interview process. Pre-study interviews were conducted to assess the usefulness of each interview question and to clarify questions. Additionally, concerted effort went into the design and protection of confidentiality.

Data and methods triangulation were enhanced by adding quantitative data and descriptive statistics to the study and by researching school and community data to place students' comments in a broader ecosystemic context. These multiple methods and data sources promoted greater understanding of IT use among adolescents (Johnson, 1997).

Every researcher participated in the interview process, kept personal notes and reflections, and debriefed after each round of interviews. Each researcher did an independent coding of three transcribed interviews that was followed by extensive group discussion that led to the development of an initial coding frame, as described above. The first pass at coding was done in teams to train the researchers in the coding process and build and maintain coding consistency that led to a high level of confidence in the independent coding. Data analysis was strengthened by researcher triangulation, which involved having multiple coders confirm the coding scheme and consisted of the full participation of the four researchers (Johnson, 1997). The trustworthiness of this study rests in its significant sample size and the investment, cohesion, and consensus of multiple researchers/coders through the process of training and peer debriefing.

Coding, analysis, and reporting utilized extensive direct quotation, a low inference descriptor method (Johnson, 1997).

4. Results

In focusing on the issue of adolescents' IT experience vis à vis their parents, two major themes emerged. First, adolescents spoke of their expertise. In particular they commented on their knowledge to repair equipment, ability to use IT well, and their sense of pride in their own ability and their parents' acknowledgement of this ability. Second, they talked about their personal lack of perceived need for supervision, but their assessment that other adolescents and younger children did need to be watched closely. These results have implications for future understanding of this developmental life stage.

4.1. Adolescents as Experts

During the interviews, it was very common for adolescents to report that they were more sophisticated than their parents at using technology. Sometimes this sophistication was related to the ability to use or repair equipment, as this responder spoke to:

Subject: My dad likes it 'cause I can help him a lot. My mom, she doesn't really care that much about it, but I help her too sometimes.

Interviewer: That's interesting, so you're sort of the expert for your dad.

Subject: Mmm-hmm, because he gets very frustrated with the computers, so I have to usually do it.

Adolescents often reported that their parents were pleased with their child's ability to use technology.

Subject: My mom's happy with it (skill with technology) 'cause if something breaks she knows I can fix it.

Adolescents in this study were also proud of their ability to use technology, especially when they compared it to the skill level of their parents. One student stated:

Subject: It makes me feel good 'cause I can do something that sometimes not even my mom can do, 'cause she didn't grow up with it and things like that.

Some students were very clear about their parents' lack of technology ability, as was this respondent:

Subject: Then I'm usually on there to look something up for my dad or unfreeze the computer, cause my dad does not know how to use the computer.

And this responder:

Interviewer: Do your parents participate with you at all on the computer, monitor, or?

Subject: No, my parents are...don't really know about the computer, how to use it anyway.

Interviewer: So they're not really computer literate.

Subject: Yeah, they're illiterate.

Interviewer: So they're probably not even interested that much.

Subject: Well, I don't know about that, if they knew how to use it I'm pretty sure they would [be].

4.2. Adolescent Self-Assessment and Need for Supervision

Adolescents are well known for their tendency to inflate their own abilities and minimize their own vulnerabilities. When it comes to their assessment of their technology use, this pattern appears to hold true. Adolescents in this study routinely advised that parents should monitor what their adolescent children are viewing and engaging in online, while at the same time stating

that it was unnecessary for *their* parents to do so for them. Sometimes respondents spoke to the need to monitor children younger than themselves:

Subject: I would have to say, if your kids are our age a little bit, I'm fifteen but kids that are maybe like thirteen or younger, check to see what they're doing, on the computer.

And this responder:

Subject: Yeah, I think there should be, like, I don't, I don't think chat rooms are a good idea for middle school students, and I think they should have to be a certain age to do chat rooms and...stuff like that.

Interviewer: What age do you think would be good?

Subject: Um, probably like, 16.

Some responders also discussed other forms of regulation designed to protect younger media consumers:

Interviewer: So how do you feel about the issue of having rules or ratings systems for games and things like movies; what do you think about that, do you agree with it or not?

Subject: I don't know, 'cause like um, for little kids yeah, but once you get to my age you've pretty much seen most of the stuff anyway, like if a movie's rated R 'cause somebody gets shot, but it's not like you're doing really sick stuff. Kids watch those movies anyway.

Interviewer: So you don't really think we need the ratings system anyway?

Subject: Yeah.

When asked about this, most respondents stated that they were trusted enough by their parents to not need the oversight, and that they were savvy enough to keep themselves safe with little guidance or direction. Respondents seemed to believe that the parents' ability to adequately

monitor them was low, and being able to trust the adolescent was more important. In the words of one respondent:

Subject: Parents? Um, I guess I would say that make sure you can trust your kids, 'cause I know there are people out there you can't trust. I've heard stories about parents who are just constantly trying to know what's going on with the kids but just make sure you can trust them if you're going to let them use the computer.

And this respondent, who illustrated the lack of faith many adolescents have in their parents' ability to monitor and protect them:

Interviewer: Do your parents ever participate with you using technology? Do they play computer or video games with you, or monitor what you're doing?

Subject: I think they monitor, my mom always says she does, but I don't know.

Interviewer: Do you know how she monitors it?

Subject: I'm not sure, she always says she does, and I believe her, but sometimes I think she mentions websites that I don't like, so.

Interviewer: You think she's using scare tactics?

Subject: Yeah.

5. Conclusions and implications

5.1. Adolescent Empowerment - A Bridge to Autonomy

Adolescence is a time for young people to develop a unique identity and learn how to interact with the world as an autonomous entity. Prior to the current generation, this was accomplished primarily through interaction with peers within the same geographic and social systems. Since the advent of the internet, and even more so with the influx of mobile

technologies such as smart phones and tablets, adolescents are able to interact with people and peruse information from anywhere in the world. This phenomenon has the possibility of allowing adolescents to create identities that are much less similar to their families of origin and close community members than ever before.

It has been assumed in previous generations that parents have the ability to guide their children through discovering of themselves that is such an essential part of adolescent development. With the current generation, this assumption may no longer apply. Many of today's generation are more experienced and adept at using technology than their parents are. Individuals born after 1994 are termed "digital natives" (Prensky, 2001) signifying that they are unaware of a world that is not digitally connected. Many of the current generation's parents are "digital immigrants," or people who are learning technology but do not incorporate it as part of themselves (Prensky, 2001).

Adolescents in this study viewed themselves as experts when it comes to using technology, especially using technology to interact with other people. There may be much more truth to it with the current generation than in years past. Adolescents do not believe that their parents are more knowledgeable about using technology than they are, and in many instances, they are right. This leaves a gap in parents' ability to supervise and support adolescents during a crucial stage of development. It also suggests that age-old theories (e.g., Erikson, 1986), may need to be examined in light of the phenomena that adolescents may individuate from their parents and families based on their IT prowess, and their ability to create an alternate world/family in which to participate.

5.2. Strengths, limitations, and future directions

One of the major strengths of this study was capturing and presenting the voices of the adolescents themselves. Too often, we learn about children and adolescents only from the adults in their lives, e.g., parents, teachers, and coaches. For the question explored by this study, i.e., that of identity and autonomy in the digital age, it was especially important to hear from the teens as they described their IT experiences vis à vis their parents' understanding and ability in this area of their lives. Another strength, the sample size across four schools, is particularly large for a qualitative study, and gave the researchers a sense of confidence in the data when multiple adolescents talked about similar themes and issues across the sample.

However, the fact that all the schools are from the same region in the middle of the same Midwestern state makes it difficult to generalize to adolescents across the country, or around the world. The research design may have mitigated this somewhat by having urban, rural, and suburban schools as part of the sample, but it is still a possible limitation. Certainly, reports of adolescents' IT usage indicates that this is a global issue (PEW, 2016), and thus it is possible that teens worldwide feel a sense of greater knowledge than their parents in this arena.

Access to technology, and the capability to use technology, continues to increase exponentially. The Internet Generation (people born 1994-present) are experiencing adolescence at a very unique moment in human history, as they are more expert in using technology to interact with their world than any other generation before. It is probable that future generations will face a far less dramatic generational gap in skills and ability related to technology; future parents will be much more able to support and supervise their children when it comes to technology. However, research should continue to monitor how adolescents are using technology-assisted methods to create their own identities and worldviews, since it is very unstructured and expansive. It is also important for research to continue to examine how people

are using technology to interact, and how they are using it to gain information. New technologies are developed and released every day. Continued attention to how new technologies are impacting human development at all levels is needed.

The research presented here also suggests that age-old theories (e.g., Erikson, 1986), may need be examined in light of the phenomena that adolescents may individuate from their parents and families based on their IT prowess, and their ability to create an alternate world/family in which to participate. It would also be interesting to compare this experience to that of children in immigrant families, where the children are far more adept in the new culture and its language than their parents are. It might be that these children, too, have an experience of expertise that allows them to separate, individuate, and form their own identities earlier than some of their peers. Perhaps this life stage task is not as common to all adolescents as theorists once thought.

References

- Barth, F. D. (2014). Social media and adolescent development: Hazards, pitfalls and opportunities for growth. *Clinical Social Work Journal*, 43, 201-208. DOI: 10.1007/s10615014-0501-6
- Berg, B. L. (2007). *Qualitative research methods for the social sciences* (6th ed.). Boston: Allyn & Bacon.
- Biocca, F. (2000). New media technology and youth: Trends in the evolution of new media. *Journal of Adolescent Health*, 27, 22–29. DOI:10.1016/S1054-139X(00)00136-1.
- Boneva B., Quinn, A., Kraut, R., Kiesler, S., & Shklovski, I. (2006). Teenage communication in the instant messaging era. In R. Kraut, M. Brynin, S. Kiesler, (Eds.), *Computers, phones, and the Internet: Domesticating information technology*, (201-218). New York, NY: Oxford University Press.
- Bronfrenbrenner, U. (1986). *The ecology of human development: Experiments by nature and design*. Cambridge, MA: Harvard University Press.
- Bryant, J.A., Sanders-Jackson, A., & Smallwood, A.M.K. (2006). IMing, text messaging, and adolescent social networks. *Journal of Computer-Mediated Communication*, 11, 577-592.
- Clarke, V. & Braun, V. (2013). Teaching thematic analysis: Over-coming challenges and developing strategies for effective learning. *The Psychologist*, 26 (2), 120-123.
- Crockett, L. J. & Crouter, A. C. (2014). *Pathways through adolescence: Individual development in relation to social contexts*. New York, NY: Psychology Press.
- Echevarria-Doan, S. & Tubbs, C.Y. (2005). Let's get grounded. In D. H. Sprenkle & F. P. Piercy (Eds.), *Family Therapy Research and Grounded Theory* (2nd ed., pp. 41–84). New York, NY: The Guilford Press.
- Erikson, E. H. (1986). *Identity, youth and crisis*. New York, NY: W.W. Norton & Company.
- Fletcher, A.C. & Blair, B.L. (2014). Maternal authority regarding early adolescents' social technology use. *Journal of Family Issues*, 35(1), 54-74. DOI: 10.1177/0192513X12467753
- Goldstein, S. E., Davis-Kean, P. E., & Eccles, J. S. (2005). Parents, peers, and problem behavior: A longitudinal investigation of the impact of relationship perceptions and characteristics on the development of adolescent problem behavior. *Developmental Psychology*, 41, 401-413.
- Harold, R. D., Colarossi, L. G., & Mercier, L. R. (2007). *Smooth sailing or stormy waters? Family transitions through adolescence and their implications for practice and policy*. Mahwah, NJ: Lawrence Erlbaum Associates.

- Holmes, D. & Russell, G. (1999). Adolescent CIT use: Paradigm shifts for educational and cultural practices? *British Journal of Sociology of Education*, 20(1), 69-78.
- Huang, G.C., Unger, J.B., Soto, D., Fujimoto, K., Pentz, M.A., Jordan-Marsh, M., & Valente, T.W. (2014). Peer Influences: The impact of online and offline friendship networks on adolescent smoking and alcohol use. *Journal of Adolescent Health*, 54, 508-514.
- Johnson, R. B. (1997). Examining the validity structure of qualitative research. *Education*, 118(2), 282–292.
- Katz, R., Felix, M., & Gubernik, M. (2014). Technology and adolescents: Perspectives on things to come. *Educational Information Technology* 19(4), 863–886. DOI 10.1007/s10639-013-9258-8
- Koepke, S. & Dennisen, J.J.A. (2012). Dynamics of identity development and separation: Individuation in parent-child relationships during adolescence and emerging adulthood. *Developmental Review*, 32(1), 67-88.
- Levine, D. T., & Stekel, D. J. (2016). So why have you added me? Adolescent girls' technology-mediated attachments and relationships. *Computers in Human Behavior*, 63, 25-34.
- Lofland, J. & Lofland, L. H. (1994). *Analyzing social settings: A guide to qualitative observation and analysis* (3rd ed.). Florence, KY: Wadsworth Publishing.
- Luster, T. & Okagaki, L. (Eds.). (1993). *Parenting: An ecological perspective*. Hillsdale, NJ: Erlbaum.
- Marshall, C., & Rossman, G. B. (2006). *Designing qualitative research* (4th ed.). Thousand Oaks, CA: Sage Publications.
- Mikami, A.Y., Szewedo, D.E., Allen, J.P., Evans, M.A., & Hare, A.L. (2010). Adolescent peer relationships and behavior problems predict young adults' communication on social networking websites. *Developmental Psychology*, 46 (1), 46-56. doi:10.1037/a0017420
- Patchin, J.W. & Hinduja, S. (2010). Cyberbullying and self-esteem. *Journal of School Health*, 80(12), 614-621. DOI: 10.1111/j.1746-1561.2010.00548.x
- Prensky, M. (2001). Digital natives, digital immigrants part 1. *On the Horizon*, 9(5), 1-6.
- Pew Research Center. (2016, August 1). *Parents, teens and digital monitoring*. Retrieved from <http://www.pewinternet.org/2016/01/07/parents-teens-and-digital-monitoring/>
- QSR International Pty Ltd. (2007). *NVivo 7 qualitative analysis software*. Doncaster, Victoria, Australia: Author.

- Quigley, M. & Blashke, K. (2003). Beyond the boundaries of the sacred garden: Children and the internet. *Information Technology and Childhood Education Annual*, 309-316.
- Schmitt, K.L. (2000). *Public policy, family rules, and children's media use in the home*. Philadelphia, PA: The Annenberg Public Policy Center of the University of Pennsylvania.
- Seal-Wanner, C. (2007). Teens and technology: The perfect storm? *Television Quarterly*, 37(2), 5-16.
- Silverberg, S.B. & Gondoli, D.M. (1996). Autonomy in adolescence. A contextualized perspective. In G.R. Adams, R. Montemayor, & T.P. Gullotta (Eds.). *Psychosocial development during adolescence* (pp. 12-61). Thousand Oak, CA: Sage.
- Smith, J. A. & Osborn, M. (2003). Interpretive phenomenological analysis. In J. A. Smith (Ed.), *Qualitative psychology: A practical guide to research methods* (pp. 51-80). Thousand Oaks, CA: Sage Publications.
- Steinberg, L. (1985). *Adolescence*. New York: Alfred A. Knopf.
- Steinberg, L. & Levine A. (1997). *You and your adolescent: A parent's guide for ages 10-20*. New York: Harper-Perennial/HarperCollins.
- Subrahmanyam, K., Greenfield, P., Kraut, R., & Gross, E. (2001). The impact of computer use on children's and adolescents' development. *Applied Developmental Psychology*, 22, 7-30.
- Subrahmanyam, K. & Greenfield, P. M. (2008). Communicating online: Adolescent relationships and the media. *The Future of Children*, 18, 119-146. DOI:10.1353/foc.0.0006
- Tapscott, D. (1998). *Growing up digital: The rise of the net generation*. New York: McGraw-Hill.
- Thompson, V. L. S. (1994). Socialization to race and its relationship to racial identification among African Americans. *Journal of Black Psychology*, 20(2), 175-188.
- Valkenburg, P. M., & Peter, J. (2009). Social consequences of the internet for adolescents a decade of research. *Current Directions in Psychological Science*, 18(1), 1-5.
- Vaterlaus, J. M., Beckert, T. E., Tulane, S., & Bird, C. V. (2014). They always ask what I'm doing and who I'm talking to. *Parental Mediation of Adolescent Interactive Technology Use, Marriage & Family Review*, 50(8), 691-713. DOI:10.1080/01494929.2014.938795
- Villani, S. (2001). Impact of media on children and adolescents: A 10-year review of the research. *Journal of the American Academy of Child & Adolescent Psychiatry*, 40, 392-402. doi:10.1097/00004583-200104000-00007.