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Youth Online Media Use: Associations with Youth Demographics, Parental Monitoring, and Parent-Child Relationships

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Abstract: As online media has become an increasingly important part of youths' daily lives, it is critical for the field to explore questions related to youth online media use in order to support youth workers, youth development practice and programming. Using a national sample of youth age 13-22 (N = 585), the current study explored demographic differences in youth online media use, and examined associations between youth demographics, parental monitoring, parent-child relationship quality, and likelihood of being a frequent user of online activities. Although youth reported being frequent users of online media, Internet use was not the same for all youth. Online media use differed significantly by youth age, gender, race, and family relationship quality. The findings remind the field to consider the young people we are working with and how they use online media in their daily lives.

Introduction

There is substantial evidence revealing youth as active users of media, particularly online media. However, we know little about how youth engage with online media in different ways (for communication, for entertainment, etc.) and how this engagement differs by youths' characteristics, such as age, gender, and race. It is critical for the field to explore questions related to youth online media use in order to support youth workers, youth development practice and programming. The purpose of the current study is to provide an informational analysis of how youth are using online media, and specifically how youth demographics, parental monitoring, and parent-child relationships are associated with online media use.

Literature Review

Young people growing up today live in a technology-saturated society, as more people in the United States are using various technologies, including the Internet, more frequently than ever before (Lenhart, Purcell, Smith, & Zickuhr, 2010; Smith, 2010). This exponential increase in technology and Internet use in the United States over the past few decades is undoubtedly changing the way people are communicating with others, creating and interacting with information, and entertaining themselves (Shirkey, 2008). Thus it is not surprising that today's youth are among the most digitally connected and technologically savvy members of society (Lenhart, et al., 2011).

Youth as active users of online media

Internet use is nearly universal among youth, with 95% of those ages 12-17 reporting using the Internet; similar rates have been found for young adults (Lenhart, et al., 2011). Previous research has found that youth go online to accomplish tasks that are important to them offline (O'Keeffe, & Clarke-Pearson, 2011): communicating with others, finding information, participating in discussions, creating and sharing content, connecting to social networks, and entertaining themselves.

More specifically, communicating with others online (for example via e-mail, instant messaging, etc.) may be particularly salient for youth, since establishing, maintaining, and strengthening interpersonal connections with peers and family are important development tasks of adolescence and young adulthood (Lerner, & Steinberg, 2009). The Internet also provides youth with instant access to an extensive amount of information about various topics; previous research has found that youth frequently use the Internet to find academic- and health-related information (Percheski, & Hargittai, 2011). Some youth participate in discussions about various topics with others online, and use blogs and discussion boards to share details of their daily life (Subrahmanyam, Garcia, Harsono, Li, & Lipana, 2009). Recent research also suggests that social networking sites (SNS) such as Facebook are becoming ubiquitous aspects of youth life (Subrahmanyam, & Greenfield, 2008), and that youth use SNS to keep in contact with friends they see often and friends they rarely see (Lenhart, & Madden, 2007). Additionally, youth frequently cite entertainment, such as playing interactive video games, as their main reason for going online (Jones, & Fox, 2009). However, while previous research reveals that youth go online for a variety of reasons that are important to their growth and learning, little is known about how demographic factors, such as age, gender, and race, are associated with the range of youth online media use.

Demographic differences

Recent reports on digital differences among adults find that Internet use is strongly related to age, education, and household income (Zickuhr, & Smith, 2012), however, much less is known about differences among youth. Research that does exist has provided preliminary evidence that similar to adult use, youth online media use varies by demographics. Specifically, female youth have been found to be more likely to use the Internet and other technology for communication (instant messaging (IM) specifically; Jennings, & Wartella, 2004) and SNS (Hargittai, 2007) than male youth. In a nationally representative sample of 12-17 year olds, African-American youth were more likely to use SNS compared to their White peers, even after controlling for other factors (Ahn, 2011). The current study was designed to expand our knowledge about how age, gender, race, and geographic area are associated with youth online media use.

Family relationships

Though little research exists on the associations between family relationships and online media use, it is reasonable to expect that family relationships would impact how youth use online media. For instance, research on youth motivations for using the Internet finds that youth are using the Internet to enhance communication with family (i.e., to make plans with and stay connected to family; Bryant, Sanders-Jackson, & Smallwood, 2006; Subrahmanyam, & Greenfield, 2008). Additionally, family access to the Internet, how other family members use the Internet in the home, and pre-existing values and norms within the family are theorized to influence why and how frequently youth go online (Hertlein, 2012). The current study expands research in this area by exploring the associations between family relationships and youth online media use.

Aims

To effectively use technology to meet the needs of young people, youth workers must better understand the factors associated with youth online media use. Building on previous literature that has developed typologies of youth Internet use (Eynon, & Malmberg, 2011; Livingstone, Bober, & Helsper, 2005), the present study has two primary aims. First, it extends existing literature by exploring demographic differences in youth online media use. Second, we considered the association between youth demographic variables, parental monitoring, parent-child relationship quality and likelihood of being a frequent (or high) user of online activities.

Method

Participants

A subsample of youth (N = 585) from a larger research project was used for the current study. The purpose of the larger project was to learn about the ways young people age 13-25 use technologies to communicate with their family. The current subsample includes respondents between 13 and 22 years of age (M = 18.34, SD = 2.59; 73.5% female). The majority of participants were White or Caucasian (86.5%).

Procedures

Data were collected from youth participants using a 15-minute online survey administered between July 2010 and January 2011. Participants were recruited nationwide in three ways: (1) using e-mail listservs of professionals who sent information to young people, (2) posting information about the study with a link to the project's website on relevant Facebook group sites, and (3) contacting personal and professional networks requesting that recruitment materials be sent to potential participants. In addition, the online survey was available to students in one undergraduate course at a large public university through the undergraduate research subject pool. Upon survey completion, participants could choose to be entered into a drawing for one of 20 gift cards.

Measures

Online media use. Participants reported how frequently they do 19 online activities (e.g., send or read e-mail; go to websites about movies, television shows, music groups, or sports you are interested in; use an online social networking site like MySpace, Facebook, or LinkedIn) using a seven-point Likert-scale (0 = *Never* to 6 = *Several times a day*). Building on the work of other scholars (Eynon, & Malmberg, 2011; Livingstone et al., 2005), youth online media use was conceptualized into five groups, capturing the 12 activities most frequently used by youth: communication, information-seeking, participation, entertainment, and social networking (see Table 1). The communication, information-seeking, and participation groups were created by

computing the mean frequency of the online media activities, with higher values indicating more frequent online media use. Entertainment and social networking were each conceptualized with one item. Next, youth were classified as high (one standard deviation above the mean or higher), medium (mean), or low (one standard deviation below the mean or lower) users within each group.

Table 1

Mean Youth Online Media Use

Activity	**Full Sample (N=585)**	**User Groups**		
		Communication		
		High (n = 181)	**Medium (n = 320)**	**Low (n = 84)**
Communication	**4.76 (1.29)**	**6.00 (0.00)**	**4.70 (0.67)**	**2.33 (0.80)**
E-mail	5.23 (1.27)	6.00 (0.00)	5.17 (1.07)	3.80 (1.87)
IM	4.29 (1.97)	6.00 (0.00)	4.23 (1.43)	0.86 (1.08)
		Information-Seeking		
		High (n = 118)	**Medium (n = 313)**	**Low (n = 154)**
Information-Seeking	**3.43 (1.27)**	**5.21 (0.44)**	**3.54 (0.55)**	**1.83 (0.62)**
Get news/current events	3.68 (1.73)	5.48 (0.74)	3.91 (1.33)	1.82 (1.18)
Go to websites about movies, TV, sports, etc.	3.74 (1.69)	5.49 (0.82)	3.91 (1.32)	2.05 (1.26)
Look for general information	3.37 (1.68)	5.17 (1.02)	3.41 (1.34)	1.90 (1.29)
Check what's going on in your area	2.92 (1.53)	4.70 (1.23)	2.91 (1.13)	1.56 (0.96)
		Participation		
		High (n = 82)	**Medium (n = 378)**	**Low (n = 125)**
Participation	**1.33 (1.36)**	**4.07 (0.86)**	**1.18 (0.67)**	**0.00 (0.00)**
Post on or read discussion boards	1.83 (2.00)	4.45 (1.64)	1.87 (1.73)	0.00 (0.00)
Create or work on an online journal or blog	0.80 (1.60)	3.59 (2.13)	0.45 (0.98)	0.00 (0.00)
Read online journals or blogs of others	1.75 (1.91)	3.39 (2.18)	0.74 (1.23)	0.00 (0.00)
Create or work on web pages	0.96 (1.64)	4.94 (1.35)	1.65 (1.48)	0.00 (0.00)
		Entertainment		
Entertainment		**High (n = 133)**	**Medium (n = 220)**	**Low (n = 232)**
Play video games online	1.84 (2.01)	5.01 (0.83)	1.87 (0.81)	0.00 (0.00)
		Social Networking		
Social Networking		**High (n = 404)**	**Medium (n = 94)**	**Low (n = 87)**
SNS	5.31 (1.40)	6.00 (0.00)	5.00 (0.00)	2.45 (1.63)

Note. 0 – Never, 6 = Several times a day.

Parental monitoring. Participants were asked the extent to which their parents try to know about five aspects of their lives ("Where you go at night," "What you do with your free time," "Who your friends are," "How things are going at school or work," and "Who you are dating"). There were three response options for each item: *Don't try*, *Try a little*, and *Try a lot*. Youth were also asked the extent to which their parents really know about these five aspects of their lives using three response options: *Don't know*, *Know a little*, and *Know a lot*. Mean scores for both scales were computed to create two parental monitoring scales: parents try to know (α = 0.83) and parents actually know (α = 0.85).

Parent-child relationship quality. Participants provided information about the quality of the relationships they have with their mother and with their father by responding to 14 items for each parent or guardian (Jaccard, & Dittus, 1993; Noller, & Callan, 1988; Turrisi, Wiersma, & Hughes, 2000). These 14 items were used to create three parenting subscales for the mother-child relationship and the father-child relationship: Communication, Relationship Satisfaction, and Perceived Acceptance. *Communication* was assessed using a mean score of responses to six items (e.g., "How often do you enjoy talking things over with your mother/father?" and "How often do you rely on your mother/father for advice or guidance?"; α = .90 for mother communication, α = .92 for father communication). *Relationship Satisfaction* was assessed using four items (Landesman, & Jaccard, 1988; e.g., "I am satisfied with the emotional support my mother/father gives me" and "I am satisfied with the love and affection my mother/father shows me," α = .94 for mother relationship satisfaction, α = .96 for father relationship satisfaction). *Perceived Acceptance* was assessed using four items (e.g., "My mother/father trusts me" and "My mother/father respects my privacy," α = .87 for mother perceived acceptance, α = .86 for father perceived acceptance). Response options included: *Almost never (1)*, *Sometimes (2)*, *Quite often (3)*, and *Most of the time (4)*.

Results

Before conducting the primary analyses, to better understand the online media use of these youth, descriptive statistics were computed (see Table 1). Almost one-third (30.9%) of youth reported communicating online several times a day, and 69.1% of youth reported visiting social networking sites several times a day. Participation online was less frequent, with almost one-quarter (21.4%) reporting never posting on or reading discussion boards, reading or writing blogs, or working on web sites. However, approximately 14.0% of youth did engage in these activities an average of 3-5 days per week. Almost one-quarter (22.7%) reported going online for entertainment (to play video games) once a day; 40.0% of youth reported never going online to play video games.

To investigate the first aim, to explore demographic differences in youth online media use, a series of correlations, independent-samples *t*-tests, and one-way analysis of variance (ANOVA) tests were computed. Correlation analyses revealed that youth who were older reported going online for communication, information seeking, and social networking more frequently than youth who were younger ($p < .001$), while younger youth reported going online for entertainment more frequently than older youth ($p < .001$). Female youth reported going online for social networking more frequently than male youth ($p < .05$); male youth reported going online for entertainment and participation more frequently than female youth ($p < .05$). Non-white youth reported more frequent participation than White youth ($p < .05$). Youth living in suburban and urban areas reported going online to seek information more frequently than

youth living in rural areas ($p < .05$). No other significant differences emerged. Table 3 provides a summary of the differences in youth online media use by demographics.

Next, to examine the associations between youth demographic variables, parental monitoring, parent-youth relationship quality and the likelihood of being in the high user group for each of the online media activity groups, five multinomial ordered logit models were computed (see Table 2). Ordered logistic regression determines the likelihood that an increase in a given independent variable (or in this study, membership in a particular demographic group, for example male or female) will increase the odds of youth being in a higher user group, after controlling for all other independent variables. Each of the five logit models demonstrated appropriate goodness-of-fit indices: the chi-square tests were significant at the .001 level, indicating that the slope coefficients were significantly different from zero. Further, in each model, the predictor variables accounted for a significant amount of variance in user group (see Table 2 for pseudo R-squared values).

Table 2

Associations between youth demographics, parental monitoring, parent-youth relationship quality, and user group (high, medium, or low) for each online media activity

	Communication	**Information-Seeking**	**Participation**	**Entertainment**	**Social Networking**
Independent Variables	Ordered Logit Estimates (Standard Error)	Ordered Logit Estimates (Standard Error)	Ordered Logit Estimates (Standard Error)	Ordered Logit Estimates (Standard Error)	Ordered Logit Estimates (Standard Error)
Demographic Variables					
Age	0.26 (0.04)***	0.20 (0.04)***	0.02 (0.04)	-0.07 (0.03)*	0.28 (0.04)***
Male[a]	0.16 (0.20)	0.24 (0.19)	0.43 (0.21)*	1.58 (0.20)***	-0.13 (0.21)
Rural[b]	-0.18 (0.25)	-0.29 (0.24)	-0.58 (0.26)*	0.01 (0.24)	-0.15 (0.29)
Suburban[b]	-0.33 (0.22)	-0.05 (0.21)	-0.17 (0.23)	-0.03 (0.21)	-0.33 (0.26)
White or Caucasian[c]	0.31 (0.25)	-0.05 (0.24)	0.47 (0.26)	0.38 (0.24)	0.25 (0.29)
Parental Monitoring					
Parents try to know	0.55 (0.22)*	0.42 (0.21)*	-0.08 (0.22)	0.19 (0.21)	0.46 (0.25)
Parents actually know	-0.46 (0.22)*	-0.43 (0.22)*	-0.29 (0.23)	-0.04 (0.21)	-0.34 (0.26)
Youth-Mother Relationship Quality					
Communication	0.53 (0.27)	0.48 (0.27)	0.51 (0.28)	0.22 (0.26)	0.40 (0.31)
Satisfaction	-0.52 (0.22)*	-0.61 (0.21)**	-0.40 (0.22)	-0.15 (0.21)	-0.39 (0.24)
Perceived Acceptance	0.04 (0.25)	0.10 (0.25)	-0.34 (0.26)	-0.10 (0.24)	0.09 (0.29)
Youth-Father Relationship Quality					
Communication	0.06 (0.23)	0.33 (0.23)	-0.13 (0.24)	-0.03 (0.22)	-0.48 (0.27)
Satisfaction	0.28 (0.17)	0.21 (0.16)	0.17 (0.17)	-0.12 (0.16)	0.33 (0.19)
Perceived Acceptance	-0.31 (0.23)	-0.37 (0.23)	0.16 (0.24)	0.03 (0.22)	0.00 (0.26)
Pseudo R^2	0.15***	0.13***	0.07**	0.16***	0.15***

Note. *** p<.001, ** p<.01, * p<.05

[a]Reference group is female youth

[b]Reference group is urban youth

[c]Reference goup Is non-White youth

Communication

Youth age, parental monitoring, and mother-child relationship satisfaction were significant predictors of communication user group (see Table 2). Older youth, youth whose parents try a lot to monitor their activities, and youth who reported lower relationship satisfaction with mother were more likely to be in the high user group than younger youth, youth whose parents try a little or not at all to monitor their activities, and youth who reported higher relationship satisfaction with their mother, respectively. In contrast, youth whose parents actually know a lot about their activities were significantly less likely to be in the high communication group compared to youth whose parents actually know a little about or do not know at all about their activities.

Information-Seeking

Similar to the model predicting communication user group, age, parental monitoring, and mother-child relationship satisfaction were significant predictors of information-seeking user group (see Table 2). Older youth, youth whose parents try a lot to monitor their activities, and youth who reported lower relationship satisfaction with their mother were more likely to be in the high information-seeking user group than younger youth, youth whose parents try a little or not at all to monitor their activities, and youth who reported higher relationship satisfaction with their mother, respectively. In contrast, youth whose parents actually know a lot about their activities were significantly less likely to be in the high communication group compared to youth whose parents actually know a little or do not know at all about their activities.

Participation

Gender and geographic area were significant predictors of participation user group (see Table 2). Male youth and youth living in an urban area were more likely to be in the high participation user group than female youth and youth living in a rural area, respectively. No other variables were significant predictors of participation user group.

Entertainment

Age and gender were significant predictors of entertainment user group (see Table 2). Younger youth and male youth were more likely to be in the high entertainment user group than older youth and female youth, respectively. No other variables were significant predictors of entertainment user group.

Social Networking

The sole significant predictor for social networking user group was age, such that older youth were more likely to be in the high social networking user group than younger youth.

Discussion

Effective youth work is contingent upon youth workers' ability to target their practice and programming to meet the needs of the youth they are working with. The rapid increase in youth online media use, however, challenges youth workers to remain up-to-date about new online media and how youth are using them, as well as to understand how online media can be used to effectively reach the young people they work with. The current study is one essential step towards providing youth workers data to do this.

First, not surprisingly, young people in this study reported being active users of online media, in particular, communication, information-seeking, and social networking. Their use of the Internet

for participation and entertainment was notably less frequent. However, this study provides an essential reminder that Internet use is not the same for all youth; important demographic differences were revealed (see Table 3 for a summary). For instance, although participation and entertainment were less frequent than other activities for the full sample, males, non-White youth, and younger youth were more likely to be engaged in these types of activities than females, White youth, and older youth. Older youth were more likely to be using the Internet for communication, information-seeking, and social networking than younger youth. Differences by youth age were also reinforced by the results of the logit models; age was a significant predictor in four out of five models. This suggests youth Internet use changes with age; older youth are using the Internet to be more engaged socially with their peers and family members as they expand their social networks and develop skills to maintain friendships and other relationships during adolescence and the transition to adulthood (Lerner, & Steinberg, 2009). Relationships that exist outside of parent and sibling relationships become more salient during adolescence and remain important into emerging adulthood (Lerner, & Steinberg, 2009); communication via online media may be one critical way that young people are growing and sustaining these important relationships.

Table 3

Summary of demographic differences in youth online media use

Youth Demographics		Online Activity
Age (13-22 years; correlations)		
	Youth who are younger	More frequent gaming
	Youth who are older	More frequent communication, information-seeking, and SNS
Gender (*t*-tests)		
	Male	More frequent gaming and participation
	Female	More frequent SNS
Geographic Area (ANOVA)		
	Urban	More frequent information-seeking than rural youth
	Rural	Less frequent information-seeking than urban and suburban youth
	Suburban	More frequent information seeking than rural youth
Race (*t*-tests)		
	White/Caucasian	Less frequent participation activities
	Minority	More frequent participation activities

The finding that family relationships were related to youth online media use, specifically that parental monitoring and youth-mother relationship satisfaction were significant in the communication and information-seeking models, is of particular note. Youth whose parents try to know a lot about their activities were more likely to be in the high communication and information-seeking groups. This finding suggests that when parents are working to stay engaged in the lives of their youth, the youth is also engaged with the Internet more frequently; perhaps these online activities are one way youth and parents are staying connected, or perhaps parents feel the need to work particularly hard to stay connected to a young person who is online so frequently. In fact, this latter point may be more likely, as youth who reported lower relationship satisfaction with their mother were more likely to be in the high

user group for communication and information-seeking. In contrast, when parents actually know what is going on with their youth, the youth is less likely to be in the high user group. When parents are not only trying to stay connected but are actually successful at doing so, it may be because the young person is simply online less frequently and is more engaged in personal interactions with parents. Interestingly, youth-father relationship quality was not significant in any of these models. These data undoubtedly suggest additional research on the relationship between parent-child relationship quality and youth online media use is needed.

Implications for youth development practice and programming

As youth online media use continues to grow and diversify and new technologies are developed and disseminated, understanding use is essential to effectively engage and work with youth. For instance, older youth were more likely to be engaged with social networking, such that it may be an effective medium for reaching older youth, but perhaps gaming or more entertainment-oriented media is more appropriate for reaching younger youth. Table 3 summarizes the demographic differences that emerged.

More specifically, online media has the potential to more effectively engage young people in youth programs. As youth are generally technologically savvy and heavy users of the Internet for a multitude of reasons, youth may be more enticed to engage in programs that are supplemented with some kind of online media. Online media may also be one way to engage unengaged youth. For instance, youth may use the Internet to engage in online learning (such as learning new content for a STEM project), to engage with an adult leader, and/or to engage with their peers. Increasing youth engagement with positive youth development programs and opportunities may be significantly more important for unengaged youth than any potential negative outcomes as a result of too much technology use.

Conclusion

These data build on existing literature that seeks to move beyond simply describing youth online media use to understanding the implications of this behavior for supporting the growth and development of young people. As the field continues to move forward, these data remind us to consider the young people we are working with and how they use online media in their daily life: we must not assume that all youth online media use is the same – youth use varies by individual and family factors.

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