

Social media divide:**Characteristics of emerging adults who do not use social network websites**

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Abstract

Public opinion has embraced social media as a vital tool to reach U.S. emerging adults, but this generation has not universally adopted social media technologies. Using indepth interviews, this study examined the characteristics of 20 emerging adults (18 to 23 years old) who were non-adopters of social media. Compared to social media users, non-adopters had less economic stability, more fractured educational trajectories, and weaker support from parents and friends. Non-adopters did not use social media because they lacked access or leisure time, were not socialized into their use, lacked skills, or did not want to maintain social contacts via social media technologies. If social media are increasingly used in attempts to improve young people's lives, practitioners must understand who is left behind in the wake of these technologies.

Keywords

diffusion of innovations, digital divide, media adoption, qualitative, social media, youth

It is a foregone conclusion for many youth researchers, advocates, and educators that social media are a vital tool for reaching today's youth. Several recent studies, for instance, encourage targeting emerging adults with social media-based campaigns to promote safer sex (Jones et al., 2012; Rice, 2010), weight loss (Napolitano et al., in press), smoking reduction (Ramo and Prochaska, 2012), and general health knowledge (Uhrig et al., 2010). Such studies, however, tend to ignore the fact that not all young people use social media, nor do these studies propose alternatives for accessing social media non-adopters.

Social media adoption is not universal among emerging adults, and the rate of adoption may be plateauing. By mid-2011, according to Pew Internet research, of Internet-using 18- to 29-year olds in the United States, 87% were members of social networking websites (Zickuhr and Smith, 2012). Earlier Pew surveys showed social media adoption in this age group at 76% in 2009, 86% in 2010, and 83% in early 2011 (Madden and Zickuhr, 2011).

If social media are used to affect pro-social change among young people, practitioners and researchers need to clearly understand who is left behind in the wake of these technologies. This study examines the characteristics of emerging adults who are social media non-adopters. The paper begins with a review of media adoption literatures that predict but do not fully account for the characteristics of social media non-adopters. It then presents an analysis of in-depth interviews with 18- to 23-year olds, 20 of whom are social media non-adopters. Findings focus on the economic, educational, and social circumstances of these individuals.

Media adoption

Three media adoption literatures – digital divide, diffusion of innovations, and uses and gratifications – propose that social media non-adopters should differ from adopters, but only limited empirical evidence confirms the existence of these differences. Age is the clearest

demographic predictor of social media adoption, with younger adults more likely than older adults to use this technology (Chou et al., 2009; Madden and Zickuhr, 2011; Zickuhr and Smith, 2012). Evidence is less conclusive about other conventional demographic indicators that predict social media adoption. While some research suggests that socioeconomic disparities underlie differences in social network website use among college students (Hargittai and Hsieh, 2011), nationally representative data show no ethnic or educational differences among 18- to 34-year-old social media adopters and non-adopters (Chou et al., 2009). Reliance on college student samples in many social media studies (Barker, 2009; Ellison et al., 2007; Hargittai, 2008; Hargittai and Hsieh, 2011; Orr et al., 2009; Pempek et al., 2009; Raacke and Bonds-Raacke, 2008; Subrahmanyam et al., 2008; Tufekci, 2008; Valenzuela et al., 2009) prevents careful assessment of conventional digital divide predictors like education and socioeconomics vis-à-vis social media adoption.

Digital divide research suggests that socioeconomically disadvantaged, less educated, and minority populations have less access to online technologies than more affluent groups (Mossberger et al., 2003; National Telecommunications and Information Administration, 1995). Moving beyond the question of Internet access, recent work shows that individuals from traditionally disadvantaged groups tend to use online technologies in less sophisticated ways and with fewer benefits than those with a legacy of technological knowledge and experience (Hargittai and Hinnant, 2008; Wei and Hindman, 2011). As social media require both online access and some technological know-how, we expect social media non-adopters to reflect the conventional demographic markers of the digital divide.

Diffusion of innovations maps the gradual process by which new technologies are adopted in society (Rogers, 1995). Echoing the demographic assertions of digital divide research,

diffusion conceptualizes late adopters and laggards as being less educated and less affluent than early adopters. Diffusion also proposes that late adopters and laggards tend to be inwardly oriented, inactive in their communities, and lacking in social mobility. Rogers describes laggards as “near isolates in the social networks of their systems” (p. 265). Non-adopters are more introverted, have fewer offline friends, and fewer positive friendships than adopters (Mikami et al., 2010; Orr et al., 2009; Tufekci, 2008).

The uses and gratifications perspective (Rubin, 2008) emphasizes individuals’ personal motives to interact with communication technologies. Such motives may include socialization, entertainment, or information seeking, among others. Combined with above evidence, uses and gratifications suggests that non-adopters lack the social connections that may otherwise motivate them to use social media. Indeed, non-adopters have less need for surveillance of friends, and less need for online affirmation than adopters (Tufekci, 2008).

From another perspective, non-adopters may be less motivated than adopters to grow their social capital, or benefits of relationships, through social media. Social media may promote bonding social capital, which originates in close relationships and consists of emotional support, for instance (Ellison et al., 2007, 2011; Pempek et al., 2009; Valenzuela et al., 2009). Social media may also strengthen bridging social capital, which involves acquaintances providing individuals with new information or networking opportunities. Non-adopters may be unmotivated to increase either type of social capital, or they may not appreciate the potential value of social media for social capital building.

In sum, the adoption literatures suggest that socioeconomic, educational and social disparities should distinguish young adults who use social media from those who do not. Empirical evidence, however, does not consistently support associations between social media

adoption and demographic characteristics. Research does suggest that non-adopters are more socially isolated than adopters and may not be motivated to engage this technology. In addition to the unique associations of demographic and social factors with social media non-adoption, the cumulative role of these factors has not been adequately examined.

Qualitative analysis is an appropriate method for assessing the characteristics of non-adopters. Because of this population's relatively small size, young adult non-adopter samples may not provide enough statistical power to detect fine distinctions between adopters and non-adopters. Moreover, whereas survey instruments measure variables across entire samples of young adults, qualitative work allows connections between sets of characteristics within individual non-adopter cases. Finally, qualitative data provide ready illustrations of non-adopters' circumstances in their own words.

The following qualitative analysis offers a nuanced portrait of social media non-adopters, based on interview data, as guided by three research questions: What (1) demographic circumstances and (2) social attributes characterize emerging adults who are social media non-adopters? (3) How are these characteristics linked to social media non-adoption?

Identifying and examining non-adopters

Interview data come from the third wave of the National Study of Youth and Religion (NSYR). The NSYR broadly examined participants' lives and was not presented to them as a study of religion. For summaries of NSYR's three waves, see Smith (2005), Pearce and Denton (2011), and Smith (2009), respectively. The interviews examined here were conducted in 2008 with 230 respondents aged 18 to 23. This sample was "essentially representative of the proportions found in the general [U.S.] population on a set of key demographics variables" (Smith, 2009:323).

At the time of the interviews, MySpace and Facebook dominated other social media options in the United States. In spring 2008, 75% of Internet-using 18- to 24-year-olds in the United States had social network profiles, with MySpace and Facebook being the two social media websites they visited most (Lenhart, 2009). In the public imagination, these websites' reach may have been even deeper. In fall 2008, a professor estimated that 98% of his students used these sites (Phillips, 2008).

The NSYR interview protocol included questions about social networking websites, beginning with, "Do you ever use social networking websites such as MySpace and Facebook?" We defined a social media non-adopter as one who was not using social networking at the time of the interview and had never used such websites before. There were 20 social media non-adopters in the sample (9%), an equal number of females and males. A majority of this group was white (13 respondents), 3 were African American, 2 were Hispanic, 1 was Asian, and 1 was Native American. Ages ranged from 18 to 23 (mean age 21). An additional nine respondents previously had social networking accounts but no longer used them; they were excluded from further analysis and comparisons.

We followed a three-step qualitative analysis to identify non-adopters' characteristics. First, we analyzed each of the non-adopter interview transcripts in full and identified common themes relating to their economic, educational, and social circumstances. Of particular interest were participants' responses to questions about their living situation, family relationships, friends, educational history, employment, romantic relationships, volunteerism, participation in organized activities, and drug use. Both authors independently looked for a general theme in each participant's responses, selected representative quotes from each, and created a list of themes that appeared across multiple participants. We compared our lists and agreed on a

common set of characteristics.

Second, to verify which characteristics were unique to the non-adopters, we selected a random sample of 20 respondents from the remaining interviews. The demographic distribution of this sample closely matched the non-adopter sample. We analyzed each of these adopter interviews, paying attention to the characteristics identified in the non-adopter sample. We eliminated from the list characteristics common to both samples and generated a refined set of non-adopter characteristics. The comparisons in the paper are between these two samples of 20 adopters and 20 non-adopters.

Finally, we selected three additional random samples, 20 respondents each, from the remaining interviews and used them to verify that we identified unique non-adopter characteristics. Having examined 100 interviews, 20 from social media non-adopters, we felt confident that the characteristics we identified were considerably more common among social media non-adopters than adopters.

Characteristics of social media non-adopters

Economic instability

Digital divide and diffusion of innovations research predict that social media non-adopters come from economically impoverished backgrounds, but empirical support for this association among young adults is lacking. In the present analysis, three economic characteristics set apart social media non-adopters: unintentional dependence on relatives, service as caregivers, and a focus on finding and keeping jobs as opposed to preparing for careers.

More than half of the non-adopters lived with parents or other relatives and relied on financial assistance from these adults. While it is typical for young adults to receive help from their parents and to temporarily live with them (De Marco and Berzin, 2008; Goldscheider and

Goldscheider, 1999), Non-adopters tended to describe their financial dependence as the outcome of unintended circumstances. Dina,¹ 22, for example, a dental assistant, lived in her father's house with her boyfriend and their daughter. They had lived independently before but could not afford to do so after her boyfriend lost his job. Like several other non-adopters who lived with relatives, Dina looked at the current arrangement as a stop-gap measure until they could afford to move out. The financial dependence of social media adopters, meanwhile, appeared more planned. Fourteen of the 20 relied on support from parents or relatives but because most were pursuing some form of education, their dependence was linked to school attendance.

In some cases, non-adopters' economic circumstances were strained by their obligations to dependents: four had children and two were supporting other family members. Ruth, 19, lived with her 2-year-old son and her brother, financially supporting both. Matthew, 23, was married and had two children, his main focus being "just getting established." Tina, 21, rented a house where she lived with her younger sister and their disabled mother. She worked 30 hours a week in a restaurant to support them. None of the adopters, meanwhile, had children or similar caregiver obligations.

Many non-adopters' work situations lacked stability and long-range prospects. Some non-adopters had trouble finding and keeping work. Will, 22, for instance, said he had not been motivated to work while living with his father, but when his father kicked him out, Will faced his reality: "Can't find a job, still got to eat, still got bills to pay." Of those who were employed, most worked part-time service industry jobs. Asked to describe his job, Eric, 18, said, "I flip burgers," and several other non-adopters worked in restaurants, too. Adopters who held part-time jobs, meanwhile, characterized these as intentionally short-term while in school. A few older adopters were working in their first post-college entry-level jobs. In almost all cases, adopters

identified their jobs as being either temporary stepping stones on the way to their careers or the early realizations of these careers.

How were economic circumstances related to social media non-adoption? Although poorer people may not afford innovations (e.g., NTIA, 1995; Rogers, 1995), only two non-adopters said they did not use social networks because they did not own computers. There was no other evidence of an explicit affordability-based link underlying social media non-adoption, supporting recent findings about the second digital divide: socioeconomically disadvantaged individuals lag in information use, not access to technology (Wei and Hindman, 2011). Some non-adopters said they did not have time to create social networking profiles. Fragile economic circumstances suggested that matters of subsistence limited some non-adopters' opportunities for non-essential activities such as social media. In addition, non-adopters' work and living situations may have impacted their computer use autonomy (Hargittai and Hinnant, 2008; Hargittai and Hsieh, 2011). One adopter, a receptionist, said that she used MySpace because she was "really bored on the Internet" at work. Jobs in kitchens or behind customer service desks, where several non-adopters worked, likely did not allow similar opportunities. Finally, those who lived with relatives may have had limited opportunities to engage social media on shared home computers.

Fractured educational trajectories

Research thus far does not account for educational differences between young adult non-adopters and adopters. The present data, however, indicated that non-adopters had complicated schooling histories. The data did not simply indicate that non-adopters were less educated, or that adopters were college students while non-adopters were not. Instead, non-adopters' educational careers were more complex: some dropped out of high school, others dropped out of college,

many pursued non-conventional programs and timelines. Although several planned to continue their educations, considerable obstacles stood in their way.

A fifth of the non-adopters were high school dropouts. In comparison, all adopters completed high school. Some non-adopters without high school diplomas earned general equivalency degrees, and some planned to take college classes or pursue a full college education. Of the non-adopters who finished high school, several then struggled in college. Shannon, 22, dropped out of college after sleeping through classes. Her grave-shift job made it difficult to stay awake during the day.

Mike, 23, completed a year of college, went on a two-year religious mission, and “kind of failed out” when he resumed his studies. At the time of the interview, he was beginning to take online psychology classes. Other non-adopters pursued unconventional educational trajectories. Sue, 20, was homeschooled and did not graduate from high school, but at 14 she enrolled in a four-year university and subsequently completed a bachelor’s degree. Harry, 20, earned college credits through correspondence courses offered at his church.

Although non-adopters valued education, some faced obstacles. Tina, 21, who took care of her mother and sister, explored alternative college options:

I’ve been trying to go to school, and hopefully this fall is really going to work out, but it hasn’t been working out. I’m thinking of just doing online classes so I can be at home.

But [school] does take a lot of time away from me. For an average 21-year-old, normally, they’re all about themselves and so it’s just a little bit hard for me.

Ruth, who dropped out in the 10th grade when she had her son, talked about becoming a child psychologist but wasn’t sure how to reach that goal. she hoped to go back to school “as soon as I can financially afford it.” Mike suffered from two chronic conditions that limited his ability to

study regularly and worked a nearly fulltime job at a video store.

Adopters, in contrast, tended to follow the conventional educational pathway. Sixteen of the 20 maintained continuous enrollment since high school and earned, or were pursuing, a college degree. Only five of the 20 non-adopters did the same. The practical hurdles that stymied several non-adopters were not apparent among the adopters.

What linked fractured educations and social media non-adoption? Schools provide a space for the social transmission of customs and trends, including technology diffusion (Rogers, 1995). While respondents were adolescents when Facebook opened its membership to U.S. college and high school students (boyd and Ellison, 2007), many of the non-adopters were simply absent from campus when their peers were first setting up their Facebook profiles. Their continuing non-participation after membership was extended to non-students may have been an artifact of their missing that initial school-based dissemination.

Non-adopters' complicated educational pathways may have also led to and exacerbated these individuals' computer skill deficits (Hargittai, 2010). Non-adopters voiced reservations about the privacy and trustworthiness of social networking profiles. Emma, 22, characterized her friends' fascination with other people's profiles as "kind of an invasion of privacy." Mike was suspicious of profiles because of the potential for people to lie about themselves. But adopters demonstrated that using these technologies in specific ways overcame such concerns. They talked about managing their privacy settings, untagging unflattering photos, and being Facebook friends with people they knew offline. Some adopters talked about more sophisticated uses of social networking, like organizing or promoting causes or events. Non-adopters, meanwhile, tended to lack such technological self-efficacy. Eric, 18, expressed this succinctly, saying he did not use social media because he was "never really that into computers to sit down and make all

the shit happen.” This reticence reflects the information have-nots described by research about the second digital divide (Wei and Hindman, 2011).

Social isolation

Non-adopters maintained uneasy relationships with parents, had fewer friends, and had smaller social networks and fewer social ties than the adopters. Several non-adopters spoke of difficult family relationships. Tina had a restraining order against her father. Heather, 23, and Ruth, 19, left home after arguments with their parents. Sue never had a “major conflict” with her parents but moved out at 14. Josh, 19, lived with his grandparents because his mother had a drinking problem. Adopters weren’t insulated from family troubles: Adam, Noah, and Mark’s parents were divorced, and Meredith’s mother had cancer. But adopters did not report as much family dysfunction as non-adopters.

Non-adopters described few meaningful friendships. Some said they only counted family members as close friends. Others reflected on how few friends they had. Terri named only her sister and brother-in-law as close friends. She considered a few former coworkers to be friends, but hadn’t seen them in about a year. Matthew’s best friend was his wife’s brother. Shannon said that “the irony of life” was that she felt most comfortable with her coworkers. Mike said he was a difficult person to befriend: “I’m not a big social person, so I only have a few friends. Really, I’m not willing to put too much effort into finding and maintaining a friendship. So, it is usually more work on their part.” Adopters, meanwhile, talked readily about their long-lasting, close friendships. Their social circles, which often included people from various school and work settings, appeared larger than those of the adopters.

Most non-adopters were not involved in clubs, sports teams, or other social groups. Only Tina said she played some sports, and Sam participated in Civil War re-enactments. Adopters, in

contrast, were more involved: Jesse, 19, was in a fraternity and played intramural basketball; Meredith, 23, was in a snowboarding club and a physical therapy society; Jane directed a children's choir and was an organist at church; Jacob played league soccer.

To what extent were limited social ties related to social media non-adoption? Social media helped adopters maintain and develop friendships. Jane said she liked to use Facebook to find "friends that I haven't talked to in so long." Carl said Facebook was useful for staying in touch with old friends and for maintaining acquaintances he might want to develop in the future. Jean, 18, stayed in her hometown after high school and got Facebook to keep up with friends who moved away. Non-adopters reported fewer long-term friendships and smaller social networks, or they maintained these social ties through more conventional means. Mike said he would seek face-to-face contact if he needed to talk to someone. Dave, 21, said, "I find online communication is a pretty poor substitute for talking to people." As predicted by diffusion theory, non-adopters described themselves as socially isolated. Non-adopters appeared unmotivated to increase their social interaction via social media, and placed a lower premium than adopters on online relationships, as predicted by the uses and gratifications perspective.

Implications of non-adoption

Social media are an accessory of privilege. Many social media non-adopters are entwined in a web of disadvantaged circumstances that constrain their opportunities for positive development and wellbeing. In general, non-adopters reflect conventional characteristics of less affluent youth: they take on traditionally adult roles earlier than their peers, disrupting their educational careers; they are less likely to complete postsecondary education, work prestigious jobs, have careers, and steady employment (De Marco and Berzin, 2008; Furstenberg, 2003; Hamilton and Hamilton, 2005; Osgood et al., 2005). Their socioeconomic and educational

disadvantages are compounded by their poor social safety nets. Although family relationships, friendships, and social participation are associated with increased wellbeing (Hartup and Stevens, 1997; Mahoney et al., 2009), non-adopters appear less likely than adopters to benefit from such support structures.

Notable among our findings is the gap between adopters and non-adopters in their volume of current and potential social capital. While research asserts that social media positively affect bonding and bridging social capital (Ellison et al., 2007, 2011; Valenzuela, 2009), many non-adopters, including those who seemed to face the most dire economic and educational situations, seemed immune to the benefits of growing their social capital through Internet technologies. Their social media non-adoption appeared to be both an outcome of and an additional contributor to their disadvantaged positions. Future research should examine all tools, including social media, that emerging adults use to integrate into social networks and maintain social bonds. Such work would show precisely how much social media contribute to social capital, as compared to the contributions of older communication technologies and in-person contacts. This analysis would allow a clearer evaluation of what exactly non-adopters miss by abstaining from social media, and whether other tools approximate the social gratifications of social media.

Practitioners administering pro-social campaigns and interventions to young people should understand that social media non-adopters may be some of the most difficult youth to reach not only via social media but also with other communication technologies. In campaigns targeted at the general population, practitioners may find it useful to employ multiple communication channels to compensate for non-adopters' general disengagement. Partnering with two-year colleges and vocational schools, online colleges, service industry employers, and

social service agencies may maximize the reach of campaigns among social media non-adopters. Creative delivery methods will ensure that those who might benefit most from pro-social campaigns will not be passed over because they do not use a specific delivery technology.

This qualitative analysis of in-depth interviews from a general population sample underscores the heterogeneity of the emerging adult population with respect to technology use. For instance, most of the adopters and non-adopters in the present sample would have reported having completed “some college” in a survey question measuring the highest level of education. Such approach would have obscured the diversity of educational trajectories among the non-adopters. The study’s focus on a general population of emerging adults, in contrast to the four-year college population, allows such granular observations. The study emphasizes the value of narrative data and nuance-oriented analysis in technology adoption research, especially among populations whose members appear uniform in the ways they use new media.

This qualitative study allowed a rich assessment of the lives of 20 emerging adults who did not use social media. Although the data did not allow us to assert precisely how the demographic and social characteristics we examined were linked, it is likely that these attributes were reciprocally related in the lives of these youth. More comprehensive research is needed to verify that the characteristics we identified are reflected in the population of emerging adults who do not use social media, and how these attributes relate to and influence one another.

Conclusion

In the midst of the fervor surrounding social media and other new communication tools, it is easy to overlook the limits of these technologies. Conventional disparities persist and determine who uses and who benefits from social media. Our analysis shows that non-adopters are more likely to populate the fringes of the emerging adult universe. Their biographies tend to

be less straightforward, their current circumstances less certain, and their future goals less clear than those of the adopters. They tend to have few social ties and thus lack a structure that might mitigate their difficulties. The characteristics we identify have important implications for the utility of social media to bridge inequalities and improve the lives of underprivileged youth.

References

- Barker V (2009) Older adolescents' motivations for social network site use: The influence of gender, group identity, and collective self-esteem. *CyberPsychology and Behavior* 12: 209–213.
- boyd dm and Ellison NB (2007) Social network sites: Definition, history, and scholarship. *Journal of Computer-Mediated Communication* 13:210–230.
- De Marco AC and Berzin SC (2008) The influence of family economic status on home-leaving patterns during emerging adulthood. *Families in Society: The Journal of Contemporary Social Services* 89:208–218.
- Ellison NB, Steinfield C, and Lampe C (2007) The benefits of Facebook “friends:” Social capital and college students' use of online social network sites. *Journal of Computer-Mediated Communication* 12:1143–1168.
- Ellison NB, Steinfield C, and Lampe C (2011) Connection strategies: Social capital implications of Facebook-enabled communication practices. *New Media & Society* 13:873–892.
- Furstenberg FF (2003) Growing up in American society: Income, opportunities, and outcomes. In: Heinz WR, Marshall VW (eds.) *Social dynamics of the life course: Transitions: institutions, and interrelations*. New York: Aldine de Gruyter, 211–233.
- Goldscheider F and Goldscheider C (1999) *The changing transition to adulthood: Leaving and returning home*. Thousand Oaks, CA: Sage.
- Hamilton SF and Hamilton MA (2005) School, work, and emerging adulthood. In: Arnett JJ and Tanner JL (eds.) *Emerging adults in America: Coming of age in the 21st century*. Washington, DC: American Psychological Association: 257–278.
- Hargittai E (2008) Whose space? Differences among users and non-users of social network sites. *Journal of Computer-Mediated Communication* 13:276–297.
- Hargittai E (2010) Digital na(t)ives? Variation in Internet skills and uses among members of the “net generation.” *Sociological Inquiry* 80:92–113.

- Hargittai E and Hinnant A (2008) Digital inequality: Differences in young adults' use of the Internet. *Communication Research* 35:602–621.
- Hargittai E and Hsieh YP (2011) From dabblers to omnivores: A typology of social network site usage. In: Papacharissi Z (ed.) *A Networked Self: Identity, Community, and Culture on Social Network Sites*. New York: Routledge, 146–168.
- Hartup WW and Stevens N (1997) Friendship and adaptation in the life course. *Psychological Bulletin* 121:355–370.
- Jones K, Baldwin KA and Lewis PR (2012) The potential influence of a social media intervention on risky sexual behavior and Chlamydia incidence. *Journal of Community Health Nursing* 29:106–120.
- Lenhart A (2009) *Adults and social network websites. Pew Internet Project data memo*. Washington, DC: Pew Internet and American Life Project. Available at: <http://www.pewinternet.org/Reports/2009/Adults-and-Social-Network-Websites.aspx>
- Madden M and Zickuhr K (2011) 65% of online adults use social networking sites. *Pew Internet and American Life Project*. Available at <http://www.pewinternet.org/~media/Files/Reports/2011/PIP-SNS-Update-2011.pdf>
- Mahoney JL, Vandell DL, Simpkins S, and Zarrett N (2009) Adolescent out-of-school activities. In: Lerner RM and Steinberg L (eds.) *Handbook of adolescent psychology: Vol. 2. Contextual influences on adolescent development*. Hoboken, NJ: John Wiley and Sons, 228–269.
- Mikami Y, Szewedo DE, Allen JP, Evans AM, and Hare AL (2010) Adolescent peer relationships and behavior problems predict young adult communication on social networking websites. *Developmental Psychology* 46:46–56.
- Mossberger K, Tolbert CJ, and Stansbury M (2003) *Virtual inequality: Beyond the digital divide*. Washington, DC: Georgetown University Press.
- Napolitano MA, Hayes S, Bennett GG, Ives AK, Foster GD (in press) Using Facebook and text messaging to deliver a weight loss program to college students. *Obesity*.
- National Telecommunications and Information Administration (1995) Falling through the net: A survey of the “have nots” in rural and urban America. Available at: <http://www.ntia.doc.gov/ntiahome/fallingthru.html>
- Osgood DW, Ruth G, Eccles JS, Jacobs JE, Barber BL (2005) Six paths to adulthood. In: Settersten Jr. RA, Furstenberg Jr. FF, and Rumbaut RG (eds.) *On the frontier of adulthood: Theory, research, and public policy*. Chicago: University of Chicago Press, 320–355.

- Orr ES, Sisis M, Ross C, Simmering MG, Arseneault JM, and Orr RR (2009) The influence of shyness on the use of Facebook in an undergraduate sample. *CyberPsychology and Behavior* 12:337–340.
- Pempek TA, Yermolayeva YA, and Calvert SL (2009) College students' social networking experiences on Facebook. *Journal of Applied Developmental Psychology* 30:227–238.
- Pearce LD and Denton ML (2011) *A faith of their own: Stability and change in the religiosity of America's adolescents*. New York: Oxford University Press.
- Phillips S (2008) Can MySpace make better writers? *Miami Herald*, November 9, p. LL10.
- Raacke J and Bonds-Raacke J (2008) MySpace and Facebook: Applying the uses and gratifications theory to exploring friend-networking sites. *CyberPsychology and Behavior* 11:169–174.
- Ramo DE and Prochaska JJ (2012) Broad reach and targeted recruitment using Facebook for an online survey of young adult substance use. *Journal of Medical Internet Research* 14:e28.
- Rice E (2010) The positive role of social networks and social networking technology in the condom-using behaviors of homeless young people. *Public Health Reports* 125:588–595.
- Robinson M and Robertson S (2010) Young men's health promotion and new information communication technologies: Illuminating the issues and research agenda. *Health Promotion International* 25:363–370.
- Rogers EM (1995) *Diffusion of innovations*. New York: The Free Press.
- Rubin AM (2008) Uses-and-gratifications perspective on media effects. In: Bryant J and Oliver MB (eds.) *Media effects: Advances in theory and research*. New York: Routledge, 165–184.
- Smith C with Denton ML (2005) *Soul searching: The religious and spiritual lives of American teenagers*. New York: Oxford University Press.
- Smith C with Snell P (2009) *Souls in transition: The religious and spiritual lives of emerging adults*. New York: Oxford University Press.
- Subrahmanyam K, Reich SM, Waechter N, and Espinoza G (2008) Online and offline social networks: Use of social networking sites by emerging adults. *Journal of Applied Developmental Psychology* 29:420–433.
- Tufekci Z (2008) Grooming, gossip, Facebook and MySpace: What can we learn about these sites from those who won't assimilate. *Information, Communication and Society* 11:544–564.

Uhrig J, Bann C, Williams P, and Evans WD (2010) Social networking websites as a platform for disseminating social marketing interventions: An exploratory pilot study. *Social Marketing Quarterly* 16:2–20.

Valenzuela S, Park N, and Kee KF (2009) Is there social capital in a social network site? Facebook use and college students' life satisfaction, trust, and participation. *Journal of Computer-Mediated Communication* 14:875–901.

Wei L and Hindman DB (2011) Does the digital divide matter more? Comparing the effects of new media and old media use on the education-based knowledge gap. *Mass Communication and Society* 14:216-235.

Zickuhr K and Smith A (2012) Digital differences. *Pew Internet and American Life Project*. Available at <http://pewinternet.org/Reports/2012/Digital-differences.aspx>

¹ All participants are referred to by pseudonym.