

# The Boundaries Between: Parental Involvement in a Teen's Online World

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The increasing popularity of the Internet and social media is creating new and unique challenges for parents and adolescents regarding the boundaries between parental control and adolescent autonomy in virtual spaces. Drawing on developmental psychology and Communication Privacy Management (CPM) theory, we conduct a qualitative study to examine the challenge between parental concern for adolescent online safety and teens' desire to independently regulate their own online experiences. Analysis of 12 parent-teen pairs revealed five distinct challenges: (a) increased teen autonomy and decreased parental control resulting from teens' direct and unmediated access to virtual spaces, (b) the shift in power to teens who are often more knowledgeable about online spaces and technology, (c) the use of physical boundaries by parents as a means to

control virtual spaces, (d) an increase in indirect boundary control strategies such as covert monitoring, and (e) the blurring of lines in virtual spaces between parents' teens and teens' friends.

## Introduction

During adolescence, teens seek independence and autonomy, which often requires distancing themselves from their parents (Baumrind, 1987). During this time, teens also begin taking more risks (Kloep, Güney, Çok, & Simsek, 2009). This creates challenges for parents who are charged with protecting the well-being of their children and setting appropriate boundaries as they make this transition into adulthood (Baumrind, 1987). This process is a natural and necessary part of the adolescent's autonomy and individuation process, but it can lead to tension between parents and teens (Finkenauer, Engels, & Meeus, 2002). Parents are faced with trying to balance their teens' growing need for privacy with their own concerns over

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Received January 28, 2014; revised October 8, 2014; accepted October 9, 2014

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safety (Collins, Laursen, Mortensen, Luebker, & Ferreira, 1997).

This challenge has become even more pronounced as 95% of today's teens are eager and early adopters of the Internet (Madden, Lenhart, Duggan, Cortesi, & Gasser, 2013) and the most prolific users of online social networking sites (Ahn, 2011). For teens, the Internet is unconstrained by physical boundaries, giving them more autonomy than ever before. Online, teens consume information and have experiences that are often unmediated by their parents (Bradley, 2005). As such, the Internet has created many new opportunities for young people to access content of all types; it also enables them to connect with individuals around the world regardless of location (Lenhart, Rainie, & Lewis, 2001; Staksrud & Livingstone, 2009). Although the Internet offers tools and activities that can be both useful and entertaining for adolescents, there are also risks associated with online activities, including the sharing of personal information (De Souza & Dick, 2008); exposure to inappropriate imagery and content such as pornography, violent, or hateful content (Prichard, Spiranovic, Watters, & Lueg, 2013); cyberbullying (Bartlett, 2007), interactions with others that may be unwanted or of a sexual nature (Albert & Salam, 2012), and even risks to teens' physical safety when online encounters move to the physical world (Associates, 2012). In today's online world, where physical proximity no longer dictates the interactions people have with one another, parents struggle to establish both real world and virtual world boundaries to protect their teens from online dangers while their children struggle to act independently (Baumrind, 2005; Bradley, 2005).

This article focuses specifically on the boundary struggle between parents and adolescents as they negotiate the balance between parental control over a teen's online behaviors and a teen's need for autonomy and privacy. Following Baumrind (2005), we frame *parental control* as "parental behaviors that are intended to regulate children's behaviors to accord with prevailing family or social norms" (p. 66). *Teen autonomy* is defined as teen behaviors designed to gain independence from one's parents and to self-regulate one's own actions (Baumrind, 2005; Collins et al., 1997). Drawing on Petronio's Communication Privacy Management (CPM) theory (2002, 2013), we aim to understand the boundary challenges between parents and teens as they negotiate the balance between parental control and teen autonomy in the context of teens' online behaviors. In the literature, we noted that a number of studies focus on this area but either examine the issues from the perspective of *only* parents or *only* teens, or decouple parent and teen participants in a way that prevents a true analysis of interpersonal boundary negotiation processes. To fully understand the complex, dialectal boundary negotiation process between parents and teens, we need to take into account the perspectives of both parents and adolescents to better understand how they manage the balance between parental control and teen autonomy in the context of adolescent online behavior.

Therefore, we study the unique and interpersonal privacy boundary negotiations that occurred across 12 dyadically paired sets of teens and one of their parents.

In what follows, we first describe the overarching theory that guides the conceptual foundation of this work—CPM theory—and relate this theory to parent–teen boundary negotiation in the context of adolescent online behavior. Then we describe our methods for examining parent–teen boundary regulation within online spaces through semistructured interviews and qualitative, thematic analysis. We present our results that reveal four distinct profiles of parental control versus teen autonomy. This is followed by a description of higher-level themes that emerged from our interviews. Finally, we conclude by discussing the implications of our findings and suggesting future opportunities for extending this research.

## Theoretical Background

### *Applying Communication Privacy Management Theory to Understand Adolescent Boundary Development*

As discussed, this research focused on the interplay between parents and teens in relation to the negotiation of boundaries in online contexts. Among researchers studying family development and dynamics, the negotiation and establishment of *boundaries* between parents and adolescents has been closely tied to an individual's sense of privacy (Petronio, 2010; Tang & Dong, 2006). This interplay between boundary regulation and privacy is at the core of CPM theory, which views privacy as a boundary regulation process (Petronio, 2002). Many of the earlier CPM applications were conducted in interpersonal situations such as marital and parent–child relationships, with the central focus on privacy regulations that take place through communicative interactions (Petronio, 2002). More recent works have applied CPM to computer-mediated contexts, such as privacy management within blogs (Child, Haridakis, & Petronio, 2012; Child, Pearson, & Petronio, 2009; Child, Petronio, Agyeman-Budu, & Westermann, 2011) and social networks (Child et al., 2009; De Wolf, Willaert, & Pierson, 2014). As such, CPM was used as the overarching theory to guide the conceptual foundation of this work and the framing of its results.

CPM theory is grounded in the social behavioral work of Altman (1974, 1975, 1976, 1977) who defines privacy as "selective control of access to the self or to one's group" (Altman, 1976, p. 8), and that of Derlega and Chaikin (1977) on a dyadic boundary model of self-disclosure. CPM theory uses the metaphor of a boundary to represent a place that information judged as private is housed (Petronio, 2002). Additionally, boundary management is a rules-based process that requires social interaction and negotiation between parties. As Petronio (2010) pointed out, "privacy appears paradoxical, thus making the choices more complex for families" (p. 175). Adolescent development can be considered a pivotal time for boundary

refinement; a teen's quest for autonomy and independence can be seen in his or her efforts to define boundaries to separate from his or her parents (Laufer & Wolfe, 1977; Petronio, 2010). As adolescents strive for and achieve autonomy, parents begin to relinquish control so as to encourage their children's individuation. However, some parents may be hesitant or unwilling to cede control, creating tension and issues related to trust and closeness (Collins et al., 1997). Williams refers to this negotiation as a "push and pull" struggle (2003). The dialectical tension between how much control to give up and the potential risks involved is typical of privacy boundary negotiations in parent-adolescent relationships (Collins et al., 1997; Hawk, Hale, Raaijmakers, & Meeus, 2008; Petronio, 2010). Parents of adolescents have to balance their children's growing independence with their own concerns for safety; they have to make decisions about which rules to relax and which to enforce. This often involves negotiation of rules and consequences, resulting in a renegotiation of privacy boundaries (Czeskis et al., 2010; Laufer & Wolfe, 1977; Petronio, 2010). Such renegotiations are often closely tied to the level of trust parents have in their adolescents' ability to make good decisions as well as their willingness to share information (Williams, 2003).

Teens' ability to control their personal spaces and to control access to information are critical elements of their concept of privacy and their need for autonomy (Petronio, 2010). For example, as teens age, they may share less of their daily lives with their parents (Laufer & Wolfe, 1977). In addition to developing a need for increased privacy, adolescents may also feel invulnerable to risks, and thus, engage in more risk-taking activities (Baumrind, 1987; Czeskis et al., 2010; Kloep et al., 2009). In response to teens' heightened risk-taking behaviors, parents may be compelled to exert even more control, which may violate their children's privacy boundaries (Laufer & Wolfe, 1977). To monitor these boundaries, concerned parents employ a wide variety of both direct and indirect strategies (Hawk et al., 2008). For example, indirect monitoring might take the form of listening in to phone calls or private conversations; a more direct monitoring approach might be questioning adolescents about their activities or providing unsolicited advice. Adolescents attempting to protect and define boundaries may resist parental attempts to monitor or restrict activities, sometimes even confronting parents directly (Golish & Caughlin, 2002). Alternatively, teens may use indirect and subversive tactics, such as withholding information or avoiding discussions to build and maintain strong privacy boundaries (Golish & Caughlin, 2002). In turn, parents may misinterpret adolescents' growing desire for privacy as an attempt to hide information, creating elevated concerns for their safety (McKinney, 1998). This dialectal and bidirectional nature of privacy boundaries often results in conflicts between parents and adolescents as parents attempt to keep their teens safe, and teens assert their independence and autonomy.

### *Negotiating Online Privacy Boundaries*

Although most parents feel that the Internet can be a useful and educational tool, they also worry about risks associated with adolescents' online activities (Lenhart, 2005; Lenhart & Madden, 2007; Yardi, 2012). According to Petronio (2010), "negotiating privacy rules may prove a way for parents to signal that, although they want to know what the child is doing, they recognize their child has a right to claim control over certain information considered within the child's domain" (p. 185). When privacy negotiations have taken place, parenting styles and parental mediation strategies may play important roles on adolescent online outcomes (Petronio, 2010). A number of studies have examined the influence of different parenting styles and parental mediation strategies on adolescent online outcomes, such as reducing the likelihood a teen will disclose personal information online (Lwin, Stanaland, & Miyazaki, 2008; Shin, Huh, & Faber, 2012) or be exposed to other online risks (Leung & Lee, 2012; Livingstone & Helsper, 2008; Mesch, 2009; Rosen, Cheever, & Carrier, 2008). For example, one study suggests that more restrictive parenting is associated with reduced adolescent Internet usage, which is in turn associated with fewer instances of online risk exposure (Leung & Lee, 2012). Although parents may attempt to monitor or control adolescents' online activities, today's adolescents often have more experience online than their parents and can often thwart unwanted parental involvement. However, limiting teen Internet usage too much may prevent adolescents from developing vital skills, such as ethical decision making (Wisniewski, Xu, Rosson, & Carroll, 2014), digital literacy, and may even negatively impact their self-esteem and psychological well-being (Ahn, 2011). Furthermore, parental attempts to restrict online access are often viewed by adolescents as a violation of their personal privacy boundaries. This push and pull dynamic illustrates the complex nature of setting boundaries in virtual spaces.

An interesting emergent theme among many adolescent online privacy studies is the amount of concerted effort teens put forth to protect their online privacy, not from strangers, but from their parents (Agosto, Abbas, & Naughton, 2012; boyd, 2008, 2014; Livingstone, 2008). Adolescents spend a considerable amount of effort creating privacy boundaries to restrict their parents from having access to their personal online spaces (Child & Westermann, 2013). One study found that teens prefer to use e-mail to communicate with adults because they consider it a less personal medium that prevents unwanted adults from invading their personal social networks (Agosto & Abbas, 2010; Agosto et al., 2012). Some adolescents report creating two profiles on social network sites—one for their parents' scrutiny and one for their friends. These teens make sure that their friends know that their "real" account is being monitored and that the friends should therefore post only discussions, photos, and comments suitable for parents. Meanwhile, conversations on

the “fake” account are unrestricted and thus create a privacy boundary between parents and teens. By creating two profiles, adolescents protect their privacy and exert control over access to information in their online world, thereby circumventing their parents’ attempts to monitor their behavior. This practice may lead to other risky behaviors: Adolescents who employ this strategy may accept requests from unknown individuals thinking that they come from friends who are also employing aliases (boyd, 2007).

With the growing use of the Internet, social media, and texting, it is important that we better understand the new dynamics that may present themselves regarding establishing boundaries and negotiating privacy *between* parents and teens in online contexts. The aforementioned studies (Agosto et al., 2012; Ahn, 2011; boyd, 2007, 2008, 2014; Child & Westermann, 2013; Lenhart, 2005; Lenhart & Madden, 2007; Leung & Lee, 2012; Livingstone, 2008; Livingstone & Helsper, 2008; Lwin et al., 2008; Mesch, 2009; Rosen et al., 2008; Shin et al., 2012; Wisniewski et al., 2014; Yardi, 2012) have provided useful insights about this boundary negotiation process between parents and teens when it comes to parental involvement in adolescent online spaces. However, for the most part, research in this genre has focused on the perceptions of teens or parents, not on the combined perceptions of teens and parents. For example, Livingstone (2008) conducted an interview study of 16 adolescents to understand risk-taking behaviors, self-expression, and privacy conceptualizations within online social networking contexts. This work emphasized how teens need to balance the risks and opportunities associated with disclosing personal information as a form of self-expression to generate online intimacy with others. It also highlighted the importance of being able to experiment and construct this idea of self apart from parental supervision (Livingstone, 2008). Yardi (2012) performed an in-depth analysis of parental strategies for managing children’s technology usage, using qualitative inquiry of parental perspectives. Some of the key findings from this study included parental concerns regarding teens’ overuse of technology, the difficulties parents had in enforcing technology-based rules, and a resulting sense of loss of control over their children’s online technology usage.

However, studying adolescent online behaviors independently of parental attempts to influence these behaviors limits our understanding of the interpersonal boundary regulation process between parents and adolescents. Relatively few studies have captured both the perspectives of teens and their parents regarding adolescent online safety, privacy, and boundary setting (Burke, Adamic, & Marciniak, 2013; Child & Westermann, 2013; Cranor, Durity, Marsh, & Ur, 2014; Livingstone, Ólafsson, O’Neill, & Donoso, 2012; Sorbring & Lundin, 2012), especially for populations of teen minors (ages 13–17). Through a descriptive study of 400,000 posts and comments, Burke et al. (2013) examined unique communication patterns between parents and their children (ranging from younger to adult children) on Facebook.

Child and Westermann (2013) also examined the parent–child relationship in terms of how young adults managed Facebook friend requests from their parents. Sorbring and Lundin (2012) surveyed 538 teenagers and their 798 parents to understand parental insights into their teens’ Internet experiences. They found that parents who actively participated in their teens’ online activities but generally trusted their teens to behave reasonably online tended to have more accurate insights into their teens’ online experiences. Both mothers and fathers tended to overestimate their teens’ negative experiences regarding cyberbullying; mothers underestimated teens’ exposure to distressing online content, whereas fathers tended to overestimate this aspect of teens’ online experiences (Sorbring & Lundin, 2012).

The most recent and relevant study examining the privacy boundaries between parents and teens in online contexts (Cranor et al., 2014) conducted semistructured interviews of 10 adolescents (ages 14–18) and 10 parents to understand perceptions about teens’ right to privacy online. They found that the majority of parents and adolescents agreed that teens should have a limited right to privacy from their parents, which can be justifiably overridden in cases of emergency, such as direct threats to adolescent online safety. Concepts that supported a teen’s right to privacy included basic human rights, respect, and parental trust; reasons associated with a lack of the right to privacy included parents’ right to know, teens’ financial dependence upon parents (thus, general lack of rights), and parental responsibility to safeguard minors (Cranor et al., 2014). One potential limitation of this study was that they did not dyadically pair parent and teen subjects as the unit of analysis; instead, parent and teen participants were selected from separate families. To fully understand the complex, dialectal boundary negotiation process between parents and teens, we need to take into account the perspectives of both parents and adolescents to understand how they manage the interpersonal balance between parental control and teen autonomy in the context of adolescent online behavior.

## Methods

The goal of this research was to better understand parent–adolescent interactions, privacy perceptions, and boundary regulation and setting behaviors related to adolescent’s online behaviors. We define *boundary regulation* using the theoretical framing of CPM, as the explicit but also implied rules or behaviors that are used to restrict or regulate an individual’s information or activities (Altman, 1975; Petronio, 2002). Three main principles of CPM that we considered include privacy ownership, privacy control, and privacy turbulence (Petronio, 2002). Parents create boundaries for their teens by setting guidelines for how teens engage online or by personally monitoring their teen’s online behavior; we frame this boundary setting process as *parental control*. Often, parents need to share in the collective ownership of teens’ personal information to exert some level of parental control over their teens’ online

behaviors. However, doing so may create boundary turbulence if teens believe they should have sole ownership of their privacy decisions (Petronio, 1994), thus causing some teens to feel as if their privacy boundaries have been violated. Therefore, teens also create boundaries between themselves and their parents to self-regulate their online activities. For the purpose of this research, we consider these behaviors as a means to establish individual boundary control for exerting *teen autonomy* so that teens can establish their own privacy rules in relation to both their parents and others online (Petronio, 1994, 2002). To examine the interplay between these two boundaries (*parental control vs. teen autonomy*), we conducted a qualitative study of parent-teen pairs using descriptive cases. Because the objective was to gain a better understanding of the interactions between parents and teens, an interpretivist approach to data collection and analysis was used, which allows for building understanding through the interpretations of others and takes into account the participants' experiences within specific context (Myers, 2009; Trauth & Jessup, 2000; Walsham, 1995). This is especially important in understanding the interactions between actors in specific contexts, as is the case here. Semistructured interview methods were selected to allow for flexibility in exploring responses and interesting lines of discussion during the data collection process to build deeper contextual understanding (Myers & Newman, 2007).

Prior to interviews, a list of semistructured questions was created to solicit information from parents and teens based on the goals of the research. Both groups were asked similar questions with parents commenting on their teen's online behaviors and teen's commenting on their personal behaviors. Specifically, questions were designed to assess the teen's access to computers (both inside and outside the home), his or her online activities (both social and school related), strategies used by both teens and parents to protect teen's information, safety and privacy, and rules or strategies used by parents to restrict or set guidelines regarding teens' online behaviors. Additionally, a series of questions were created to solicit participants' views of the risks associated with online activities (e.g., illegal music downloads, cyber-bullying, and access to inappropriate information or images). Finally, a series of questions were included to encourage participants to share stories regarding situations or events where they or others encountered issues related to online privacy or risk. Specifically, these questions allowed the interviewer to inquire further into context or situations related to boundary regulation and parental control by prompting narration and storytelling (Witzel, 2000).

### *Participants*

In May 2011, teens between the ages of 13- and 17-years-old and one of their parents were recruited to participate in the study. An e-mail message was sent to individuals who participated in two local service organizations (i.e., a local Boy Scout troop and a middle-school parent-teacher asso-

ciation) as well as to staff subscribing to a newswire service at a large university. The recruitment message described the study, emphasizing our interest in identifying parent-teen pairs who had home access to the Internet and included information on how to obtain more information about the study. A total of 12 parent-teen pairs were recruited. Each pair received \$50 for participation (dispensed to the parent).

Adolescents ranged in ages from 13- to 17-years-old with seven females and five males participating. Eleven mothers and one father were interviewed. On average, families reported having three computers (either laptop or desktop) and all adolescents had access to phones with texting capabilities. Ten of the pairs reported that they had broadband Internet access at home; two pairs (from the same family) reported dial-up access. Of the 12 parent-teen pairs, 11 pairs were White and one pair was Asian. All but one of the participating adolescents lived in a two-parent home. All participants were residents of central Pennsylvania.

### *Data Collection*

Upon arrival, parents and teens were consented together and informed that their interviews would be confidential and that no information would be shared between family members. Parents and teens were interviewed in separate rooms by different researchers. Because of the sensitive nature of the inquiry and the fact that the research team was unknown to the participants, a researcher who was also a parent interviewed all parents and a younger researcher (20 years of age) interviewed all teens. These researchers were selected to help the interviewees feel more comfortable (Myers & Newman, 2007). Each interviewer used the semistructured interview questions to guide the interviews. Interviews lasted approximately 1 hour and were audio-recorded to facilitate the flow of the conversation and reduce distractions allowing for a more personal connection between the interviewer and interviewee. After interviews were completed, the interviewee was escorted to a waiting area to wait for his or her family member. Participants had no other interaction, other than these interviews, with researchers. Although interactions between participants and the researcher were limited, care was taken to carefully pose open questions that would not suggest specific answers or lead participants to draw specific conclusions (Klein & Myers, 1999). In short, every attempt was made to ask neutral questions and remain open to participants' unique perspectives. At the completion of the data collection stage of the research, all 24 interviews (12 parent, 12 teen) were transcribed word for word.

### *Coding and Data Analysis*

The transcribed interviews were analyzed using interpretive thematic analysis. Because the research focused on building understanding related to the dynamics at play between parental control and adolescent autonomy in relation to online behaviors, our unit of analysis was the

parent–adolescent dyad. Thematic analysis was selected for its flexibility and usefulness in identifying emergent themes (Braun & Clarke, 2006). Two researchers trained in the coding guide independently coded all data. The researcher who conducted the parental interviews was primarily responsible for coding parental transcripts, and the researcher who conducted interviews with adolescents was primarily responsible for coding those transcripts. To ensure the reliability of our findings and uncover potential biases, perspectives, and assumptions, both coders independently coded two sets of parent–adolescent interviews (i.e., four interviews). Results were compared, characteristics of defined themes were clarified, and agreement was reached on coding for all individual units (Guba & Lincoln, 1994; Trauth & Jessup, 2000). The remaining transcripts were coded individually by the assigned coder with periodic crosschecks with the second coder to ensure continued agreement and conformity with agreed upon coding categories. With regard to the question of saturation, this research takes the approach that saturation can be thought of as a “matter of degree” (Strauss & Corbin, 1990, p.136). Specifically, determination of saturation is closely tied to the research question being addressed, the nature of the topic, and the claims that are made (Eisenhardt, 1989; Gregor, 2006; Strauss & Corbin, 1990). As the aim of the research is to understand high-level overarching themes, a sample size of 12 interviews is appropriate for uncovering insights into common perceptions and experiences among a group of relatively homogeneous individuals (Guest, Bunce, & Johnson, 2006).

Prior to data analysis, a coding guide was created to capture initial categories related to teens’ online behaviors, teen’s rationale for engaging in behaviors, teens and parents assessment of online risks, and parental monitoring and mediation strategies with respect to establishing privacy boundaries regarding their children’s online behaviors were created. In the first round of data analysis, each dyad’s transcripts were coded to identify the occurrence of these predefined themes. Individual comment units (i.e., a complete thought in relation to the question or topic being discussed) were extracted and organized into these predefined thematic categories. Each category included between two and 20 subthemes. For example, the category specific to the online behaviors of teens included eight specific subthemes: (a) seeking knowledge, (b) teaching others, (c) entertainment, (d) socializing, (e) asking for advice, (f) self-expression, (g) civic engagement, and (h) exploration with no intended purpose. When the themes overlapped or contained too many subcategories, we revised the coding guide.

A second review of transcripts was conducted to ensure that all relevant information had been extracted and to identify new emergent themes. For example, interviews revealed a number of additional online behaviors that had not originally been accounted for in the coding guide. Specifically, new codes were created to capture behaviors associated with (a) purchasing items, (b) sharing information with others, (c)

teen’s avoidance of activity, and (d) friend engaging in behavior but not teen. In addition, some categories were expanded to include additional subthemes. As is typical with an interpretive approach, coders made multiple passes through the data to ensure that interpretations were coherent and to look for emergent themes not previously identified. As new themes emerged, the coding guide was updated and additional passes were made through all transcripts to look for occurrences of these new themes. Further, analysis focused on themes that were present within each dyad. That is, themes that appeared to be a result of posturing or exaggeration by participants were scrutinized at a more in-depth level (Klein & Myers, 1999). Table 1 represents the final code book for our initial content analysis for both parent and teen interviews.

Finally, we reviewed our resulting codes and coded data through the lens of the CPM theory, which frames boundary regulation as a process of social interaction and negotiation between parties (Petronio, 2002). Thus, we focused on themes that were present in both parental and adolescent interviews which specifically dealt with the boundary regulation process. We identified parental control and teen autonomy as central boundary-related themes within our analysis; therefore, these central themes became the basis for analysis moving forward.

## Results

Parents expressed a wide variety of opinions about the potential risks associated with their teens’ online behavior. Some parents felt their teens were at great risk, both emotionally and physically; however, others felt their children were savvy enough to avoid harm. In general, parents were concerned about three broad categories of online risk: (a) release of personal information; (b) exposure to inappropriate information; and (c) connecting with unknown others who may be untrustworthy adults. However, the means by which parents tried to safeguard their teens against these threats were diverse; a variety of different approaches to setting and managing boundaries as well as ensuring teens’ privacy and safety were observed among the 12 parent–teen pairs. Although there were a number of similarities across the sample, even with this small group, we were struck by the wide spectrum of parental control exhibited in the online lives of teens. Parents drew different boundaries when balancing their need to monitor online behavior with their adolescent’s desire for privacy. For some, the boundaries were clearly defined and not up for debate. And for others, boundaries were vague, often unstated and unmonitored. For most, some boundaries were defined but negotiable. Approaches ranged from high levels of parental control with open access to teens’ online spaces, to limited parental control with restricted or no access to teens’ online spaces. Figure 1 depicts this general continuum of parental control observed in our sample. Within our data set, however, the level of parental control and

TABLE 1. Final coding categories for parent and teen interviews.

Category	Subcategories	Select coding scheme examples
<b>Access</b> <i>Themes related to teen's access to computers inside and outside the home</i>	Inside home access	<ul style="list-style-type: none"> <li>• Equipment</li> <li>• Connection</li> <li>• Location</li> </ul>
	Outside home access	<ul style="list-style-type: none"> <li>• Friends</li> <li>• Family</li> <li>• School</li> <li>• Work</li> </ul>
<b>Teens' online behaviors</b> <i>Themes related to the different types of online activities/tasks teens participate in as well as the motivations or purpose of engaging in these activities</i>	Online activities	<ul style="list-style-type: none"> <li>• Building knowledge</li> <li>• Entertainment</li> <li>• Self-expression</li> </ul>
	Trusted sources	<ul style="list-style-type: none"> <li>• Other teens</li> <li>• Parents</li> <li>• Teachers</li> </ul>
	Rationale for behaviors	<ul style="list-style-type: none"> <li>• Required/necessary for school</li> <li>• Influence of peers</li> <li>• Avoiding punishment</li> </ul>
<b>Attitudes</b> <i>Themes related to risks, rights, obligations and approval of teen's online behaviors</i>	Risks	<ul style="list-style-type: none"> <li>• Physical safety</li> <li>• Exposure to inappropriate content</li> <li>• Damage to reputation</li> </ul>
	Rights	<ul style="list-style-type: none"> <li>• Teens have specific rights</li> <li>• No rights</li> <li>• Laws</li> </ul>
	Obligations	<ul style="list-style-type: none"> <li>• Follow laws</li> <li>• No obligations</li> </ul>
	Approval	<ul style="list-style-type: none"> <li>• OK/Not OK</li> <li>• For older teens</li> <li>• For others</li> </ul>
	Definition of privacy	<ul style="list-style-type: none"> <li>• Keeping information to your self</li> <li>• Others respecting your space</li> <li>• Laws</li> </ul>
<b>Boundary setting</b> <i>Themes related to understanding of privacy, boundary setting strategies, and permeability of boundaries</i>	Attitudes towards privacy	<ul style="list-style-type: none"> <li>• Important</li> <li>• Not important</li> <li>• Concerned about</li> <li>• Not concerned about</li> </ul>
	Privacy management	<ul style="list-style-type: none"> <li>• Don't release certain information</li> <li>• Don't visit certain sites</li> <li>• Create fake profiles</li> </ul>
	Mediation strategies	<ul style="list-style-type: none"> <li>• Open discussion</li> <li>• Co-viewing</li> </ul>
<b>Parental control</b> <i>Themes related to parent's mediation styles and boundary setting activities related to their teen's online behaviors</i>	Monitoring strategies	<ul style="list-style-type: none"> <li>• Restrict access</li> <li>• Observation</li> <li>• Use of monitoring/restricting technology</li> <li>• Review history</li> </ul>

access to teens' online spaces tended to be more moderate than extreme.

With regard to teens' boundary setting, again we saw a wide spectrum of approaches. When parents exerted a high level of control, some teens seemed relaxed about giving their parents access to their online spaces. Alternatively, the parent-teen boundary dynamic can also be characterized by extremely low levels of parental control and high teen autonomy. In cases where the parent-teen boundary profile is characterized by high levels of parental control and high levels of teen autonomy, boundary conflict is most likely to occur as parents and teens struggle to determine who controls what the teen does online. Finally, most parent-teen

boundary profiles tended not to go to such extremes, often varying between the extremes for different situations or being more "balanced."

To illustrate the wide spectrum of parental control, as well as emergent themes related to parental and adolescent boundary setting, we present four cases of interest. The first demonstrates the use of explicit rules in conjunction with high parental control; the second describes a parent with no explicit rules and limited monitoring of the teen's online behaviors; the third case illustrates an instance when both parent and teen exhibited a high desire to define online boundaries; and the fourth describes a parent with a more moderate position, establishing parental control but making

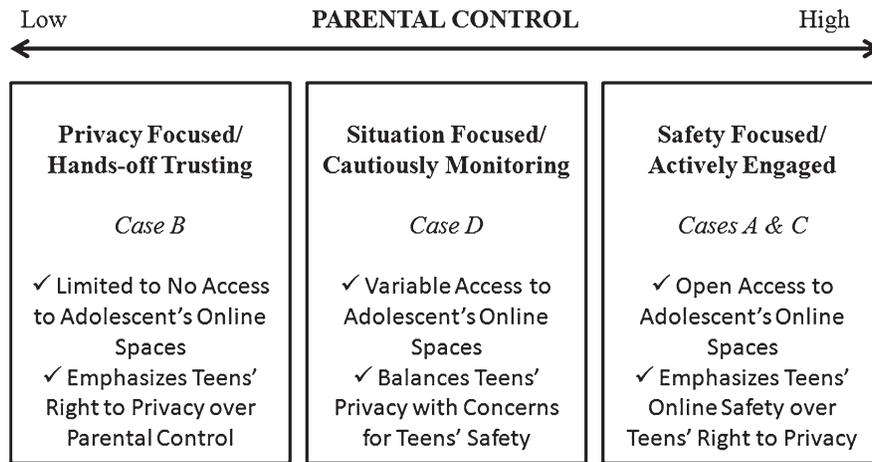


FIG. 1. Parental perspectives of control for teens' online spaces.

adjustments based on the specific situation. In these four cases, we use pseudonyms to protect the anonymity of our participants.

#### Illustrative Cases

*Case A: high parental control, low teen autonomy.* **Case overview.** Jan was a mother who chose to maintain a high level of control when it came to her daughter Carly's online activities. Carly is a 15-year-old honor student; Jan describes Carly as a trustworthy kid who knows right from wrong and who often asks permission before sharing information online. Even though Jan feels Carly is trustworthy and well informed, she does worry that Carly holds a naïve belief that "everybody's good." Jan is an educator by profession, and she believes that classes and discussions in school are also important in helping teens gain sophistication about what information they should and should not reveal online.

**Parental controls and mediation strategies.** Jan feels strongly that how teens behave online is a direct reflection of parenting skills and a proper upbringing. Thus, she feels that it is important for parents to monitor their teens' online behaviors and establish clear and consistent rules. For Jan, control over the flow of information, both incoming and outgoing, is the key to regulating Carly's online behaviors, ensuring appropriate usage, and protecting sensitive information. To limit Carly's access and exposure to inappropriate content, Jan leverages both technology and household rules. For example, Jan makes use of parental controls on a popular movie site to restrict access to age-appropriate movies only. Household rules with the purpose of limiting access include requiring Carly to leave her mobile phone downstairs before going to bed and not allowing her to text when interacting with family.

Jan: "No texting when we're in the car, you know, trying to carry on a conversation. No texting at the dinner table. Because there's some kids that just sit there and they're constantly texting. She's not allowed to do that and she doesn't do that."

Jan actively monitors Carly's texting and Facebook. In fact, unrestricted access to Carly's Facebook account was a condition for joining. Jan uses her personal e-mail for Carly's Facebook account. As a direct result, Facebook's notification feature automatically sends an e-mail message to Jan anytime there is activity on her daughter's Facebook account. Some days Jan receives upwards of 50 e-mail notifications from Carly's account. Jan monitors all such notifications; she sees her unlimited access as a way to learn more about her daughter's friends.

Jan: "When somebody posts to her Facebook, then I'll go into their profile and I'll start to look at those people. And I look at their photo albums. I see if their parents are in with them. I look at their interests and their schooling or whatever that's on that. Their personal information."

When Jan sees that a Facebook friend of Carly's is online, she often approaches Carly to inquire if she would like to talk with them online. When friend requests come in, she also mentions this to Carly inquiring as to whether she intends to accept the friend invitation.

When Jan witnesses inappropriate behavior she uses the opportunity to share her views with her daughter. For example, when Jan saw a photo of a girl who appeared to be "advertising," she reminded Carly of what constitutes an appropriate photo. She reiterated that inappropriate photos send a message regarding an individual's upbringing. This discussion did create some tension with Carly defending her friend and becoming angry that her mom would suggest she did not know what was appropriate. Carly, however, appears to understand her mom's concerns.

Jan's active monitoring of Carly's Facebook account allows her to start a discussion but it also created an unexpected dilemma regarding where her family boundaries ended and another family's began. Specifically, Jan saw girls interacting on Facebook with one calling another an inappropriate name. She felt that she had an obligation to protect people online by raising awareness with others about such inappropriate behavior.

Jan: "If somebody's picking on somebody through the Internet and somebody sees it they should probably go to a teacher or speak up about it. I think that's an obligation. . . . And that's something I wrestled with. Should I call her mom or should I not call her mom? Her mom should be watching this stuff too. It's not my job to watch everybody's kid."

**Teen autonomy and boundary setting.** Both Jan and Carly report that Carly limits her friends online. Jan reports that Carly only "friends" people she knows. Carly also reports limiting her online friends to people who were real friends and limiting her time on Facebook. For the most part, Carly readily accepts her mother's high level of involvement in her online activities. For instance, when we asked Carly whether she would be okay with her parents using monitoring software such as Net Nanny, she responded, "*yeah, I'm more on the side of it, [they] should be allowed to do it because they're your parents.*"

When asked if she would act differently on a computer at school, Carly commented that, "*schools can like watch everything you do and you wouldn't want to make a bad impression of yourself.*" Additionally, when Carly was asked if using a monitoring tool to track her online behavior would be a violation of her privacy she indicated it would be uncomfortable but she also understood her parents' need to do so:

Carly: "I guess it kind of is [an invasion] but they're your parents and they're also doing that for moral reasons. I don't think I would mind. I would probably feel weird all the time with them being able to see everything I'm doing but I don't think it would cause issues with me anyways."

During her interview, Carly never mentioned or implied that she went against her parents' wishes. She seemed to obey her mother's authority and personally believed that it was "*immoral*" to download music illegally. She also told us that she limited her own online activities and limited how much information she shared online.

Carly: "I kind of limit myself with most things like with the amount of information I put on, the amount of time I spend, those kinds of things."

**Case summary.** In summary, Jan's focus on teens' online behaviors as a reflection of parenting skills seems central to her need to ensure Carly does not post any inappropriate information and uses technology properly in social situations (e.g., not texting when someone is talking with

you in person). Jan does not draw a boundary between what her child does online and her right to access that information. She actively monitors Carly's online activities, normally on a daily basis, and uses e-mail notifications to alert her to recent activity. She is however, struggling with boundaries related to informing other parents about their own teens' online activities. Carly seems to understand her mom's need to control the situation and, although she at times pushes back to defend her own and her friend's behaviors, in the interview she expressed only minimal frustration about the situation and tended to comply with her parents' wishes.

**Case B: low parental control, high teen autonomy. Case overview.** We also found instances where parents were more hands-off, allowing adolescents to navigate online spaces with limited or no supervision. For example, Valerie is the mother of Justin, a 15-year-old boy who describes himself as a computer-savvy sophomore. Motivated by her desire to respect Justin's privacy, Valerie takes a hands-off approach to monitoring his online behavior. Valerie describes Justin as honest and very knowledgeable about the computer, but "*pretty gullible.*" Valerie reports that Justin has a Facebook page and is an avid game player but is unsure if he uses Twitter. Justin also describes himself as knowledgeable when it comes to computers. He primarily uses Facebook and sometimes Google, Wikipedia, and e-mail for school.

**Parental control and mediation strategies.** When it comes to setting boundaries, Valerie struggles with balancing Justin's privacy, his natural curiosity, and her role as a parent in monitoring his activities to ensure that he is not engaging in any inappropriate or damaging behavior. She understands that at Justin's age he has a growing need for privacy, and she feels her behavior signals both respect and trust.

Valerie: "I feel like he's old enough that I have to give him privacy. And I don't want to be breathing down his neck all the time because I don't want to alienate him. At this point in his life I feel like it's important that I'm there for him if he needs me but yet to respect some of the privacy that he has . . . I want him to know that I respect his privacy but I want him to know that there is still a line."

Valerie is, however, concerned about the possibility of anti-social and emotional consequences that may come from Justin's frequent use of the Internet. Specifically, Valerie is concerned Justin's tech-savvy friends will show him how to circumvent her efforts to restrict his activities and that they will encourage him to engage in inappropriate activities. Although she feels her son is savvy when it comes to computers, Valerie is concerned he is not savvy when it comes to resisting peer pressure.

Valerie: "I know some of the friends of his are doing the sexting thing. And that's just something that scares me. I worry about

that with him because he's blinded. He's not as savvy as other people so he's blinded by 'oh, I'll do it and won't get caught.' ”

When it comes to privacy, Valerie is very conscious about not crossing boundaries into Justin's private space. For Valerie, Justin's room, spending his own money, and ownership of technology device (e.g., laptop) often signal private areas and boundaries she is not comfortable crossing. Valerie feels that what Justin does on his iPod is his personal business and although she is concerned about what Justin and his friends do in his room behind closed doors, she feels that asking him to keep the door open would be “*crossing the line.*” Money also signals a boundary that Valerie is hesitant to cross. When Justin used his own money to purchase a game card that would allow him to play online with others, Valerie suspected he was gaming with strangers online at other people's homes (an activity she had previously forbid). However, because Justin spent his own money on the activity, she has not asked him directly if this is the case.

Valerie: “The only thing he's ever told me is that they play Live. And I say, well if the police haven't shown up I guess that's a good thing.”

**Teen autonomy and boundary setting.** Justin seems to feel confident about his own knowledge about computers and the Internet. He feels his parents are comfortable with his online activities, commenting that he “*know[s] what not to click*” and that his parents “*trust*” him. Justin also made several references to his technological knowledge. When asked if he would act differently on someone else's computer he responded that he would because, “*it took a long time to get the certain file set up [on my computer] so nobody could really watch if you download.*” This suggests that Justin may be using his knowledge of technology to hide his activities or prevent his parents from monitoring them. While Justin feels his parents are not concerned about his online use, he did comment about his parents' online behaviors.

Justin: “My parents go willy-nilly, do whatever they want on the computer and I tell them they need to do certain precautions, private browsing, clear cache [to avoid viruses].”

Additionally, Justin has a friend who was invited to join a special web site that allowed him access to movies three days before they are released on DVD. When asked if he was concerned that it was illegal, Justin responded that although he understood it was illegal he wasn't worried about the consequences of getting caught.

Justin: “I understand that it's wrong, that I'm downloading music illegally but I don't think it's that big of a deal that the police would have to go to my house. Really the cybernetwork would get it banned . . . Well the thing is, when you're a guy my age they can't exactly do a whole lot.”

When Valerie does raise issues regarding potential inappropriate online behaviors in an attempt to set boundaries,

Justin often defends or explains away the incident using his knowledge of the Internet and technology as a way to convince his mother that he knows best. For example, when Valerie mentioned some questionable name-calling on Justin's Facebook, Justin replied, “*oh we're just friends, we do that.*” Valerie was skeptical, commenting that she was not sure whether this type of behavior was common, but she did not press the issue. Although Valerie does raise issues with her son, she feels that she and Justin spend little time in real discussion and describes such conversations as “*in one ear, out the other.*” When Valerie questioned Justin about some inappropriate photos on his Facebook account Justin's reaction was to “*laugh at her*” commenting, “*Why would I do that?*”

Justin felt that his online autonomy was just a matter of his parents trusting him to do what he wanted online because he was more tech savvy than they were. He suggested that parents who do not trust their teens should monitor their behaviors, but because he knew how to circumvent this type of monitoring, it would be pointless for him.

Justin: “So they can protect them, yes. Or if they don't trust them. If they trust them, they can do what they want. If they don't trust their kids, they should get a nanny program or somehow, don't tell them about history or how to check it. Like I know what private browsing is because I know how to work a computer but . . .”

However, Justin did report engaging in risky online behaviors, such as frequently pirating digital content. His concerns about online safety centered on not getting caught for doing something he should not be doing and making sure to protect himself from security threats, such as viruses. In general, Justin had no need to rebel against his parents' wishes because they took a hands-off approach to monitoring his online life. For example, Valerie knew that Justin was pirating digital content but rationalized that he saw it as “*just sharing.*”

**Case summary.** In summary, Valerie has a high level of concern for Justin's online safety, but she feels that it really is not her place to invade his privacy. Valerie readily admits that she is not always aware of what her son is doing online, and that she struggles with where the boundaries are between ensuring her son's safety and respecting his privacy. Additionally, Valerie's limited knowledge of computers makes her feel less in control and able to monitor Justin's online activities. Justin has a high level of individual autonomy when it comes to what he does online. At this point, even if Valerie wanted access to Justin's online world, he would actively prevent her from doing so. For Valerie and Justin, the boundary is clear: What Justin does online is his own business.

*Case C: high parental control and high teen autonomy.* **Case overview.** In this case the mother exhibited high levels of parental control while the daughter constantly struggled to exert her autonomy over what she

does online. Brittany is 13 years old, and her mother Rhonda feels the need to control as much of her daughter's online behaviors as she can. Rhonda had an extremely negative experience regarding her older daughter's safety, so she is adamant about doing whatever she can to keep her kids safe.

**Parental controls and mediation strategies.** To exert control and set boundaries, Rhonda purposefully has dial-up Internet access at home as a way to limit Brittany's Internet usage. In addition, Brittany does not have Internet access on her phone, and Rhonda has installed parental monitoring software on Brittany's laptop to block various websites and any kind of downloads.

Rhonda: "Any kinds of downloads are not permitted on her computer, I locked that option out. I only permit it on my laptop so I can oversee what they're downloading . . . And there's a couple games that she plays but I locked a lot of them out. I locked a lot of websites out on her. I don't even know what they are, just everything that was like 13 and up, I locked haha."

Rhonda also has no qualms about browsing Brittany's web history to make sure that Brittany is not visiting any websites of which Rhonda disapproves.

Rhonda: "Because I noticed she was on our computer a little too much so I got to poking around to see what she was doing and I noticed a lot of websites that kind of looked shady . . . Well I didn't like, a lot of them were chat rooms. I don't like chat rooms."

Whenever Rhonda finds out that Brittany has visited a website that Rhonda does not like, she often uses the parental monitoring software to block Brittany from visiting it in the future. In fact, when we asked Rhonda what kind of access Brittany had on her laptop, Rhonda replied, "*Not much. Haha.*" Rhonda permits Brittany to use Facebook but only under the condition that Rhonda has the username and password to Brittany's account.

Rhonda: "And you know it's funny you asked that because we just talked about that because I got on her Facebook page and she was broadcasting that she was home alone and really would like someone to call her so she gave out her phone number. So I had to get into her Facebook page. Because they're not allowed to have Facebook unless I know their passwords . . . So I had to go in and wipe that out and explain to her why that was not a good idea."

Rhonda realizes that her high level of control over Brittany's online world causes friction between Brittany and herself. However, she is unapologetic for her behavior and believes it is well within her rights to control and have access to everything Brittany does online.

Rhonda: "She thinks I'm horrible for doing it because I don't trust her enough to not do it. And I explain that it's not that I

don't trust her, I don't trust the other people that can access your stuff."

When asked how Brittany responded to Rhonda's deletion of her Facebook content, Rhonda said that Brittany would just say, "*Whatever.*" Rhonda knows that Brittany does not like her always looking over her shoulder, but as her mom, it is her job to protect her kids however she can.

Rhonda: "I'm not really concerned about it. Well yeah, because I mean, kids they'll keep doing it and doing it and doing it to break the parent down. And by golly this second set [of kids] ain't breaking me down haha."

As long as Brittany lives under her roof, Rhonda believes that Brittany's safety is more important than giving her daughter personal privacy over what she does online. And, even though Brittany is only 13 years old now, it seems like Rhonda plans to continue to be very restrictive of her daughter's online behaviors as she gets older.

Rhonda: "No, I don't think a child . . . As long as a child is living at home, they don't have full rights. I don't care how old they are 21–25. If they're living at home and we're still supporting them and they're not. No they don't have full adult rights."

**Teen autonomy and boundary setting.** Although Brittany takes some of the things her mom tells her to heart, there are other times she directly disobeys her. Brittany has even done this at times when Rhonda is bound to find out, knowing that her mom will be angry with her.

Brittany: "My mom taught me better than to write my school and my number and stuff like that . . . My mom said I wasn't allowed to put my last name up on my Facebook until I just finally did it and she kind of got mad but I didn't care. Haha."

Brittany knows that when she posts something Rhonda does not like on Facebook, her mom is going to make her take it down. However, Brittany does it anyway to prove the point that she is going to post whatever she wants, even if her mom has to take it down later. Additionally, Brittany often asserts her autonomy behind Rhonda's back by taking subversive measures to keep her mom out of her private online spaces. For example, Brittany told us that she had changed her username and password on Facebook to keep her mom out of her account.

Brittany: "She thinks she has passcode but I changed it on her so only I know it, haha."

When we asked Brittany how she would feel if her mom used monitoring software, such as Net Nanny, she was concerned that the person interviewing her mom would give her mom the idea to install it on her laptop.

Brittany: "Oh geeze I hope that lady over there didn't tell my mom about that haha. Okay, because I'll just change it anyway."

Brittany did not seem aware that her mother was already using parental monitoring software on her computer, or she did not associate the two. Regardless, Brittany was confident that she would be able to find a way around any additional restrictions her mom tried to place on her.

**Case summary.** In summary, Rhonda and Brittany were both actively working to establish their own boundaries. Because both were defending their own goals, conflict often occurred at the boundaries when Brittany's desires conflicted with those of her mom's. In some cases, both mother and daughter were resigned to have repeated arguments, but at other times, Brittany chose to circumvent Rhonda's high level of parental control by secretly blocking Rhonda's access to her online spaces, such as Facebook. It seemed as if both mother and daughter felt justified in their actions and that this boundary struggle might continue for years to come.

*Case D: moderate parental control and moderate teen autonomy.* **Case overview.** A number of parents fell between active and limited monitoring of their teens' online behaviors. For these parents restricted access was often based on the specific context or activity. For example, Amy is the mother of Ethan, a tech-savvy 17-year-old. Amy describes Ethan as a "*really bright computer oriented kid*" who "*seems to manifest maturity that's beyond his age,*" and who thinks his parents are both "*idiots when it comes to computers.*" Although Amy reports that Ethan does not use Facebook or Twitter, she does see him playing games on the computer, looking at YouTube, playing Scrabble on his iPhone, and playing Xbox with other adolescents in the neighborhood. In his interview, Ethan confirmed his mother's observations saying he does "*a decent amount of schoolwork and games*" but "*not really social networking*" adding that he's "*one of the few*" that does not have a Facebook account.

**Parental controls and mediation strategies.** Amy sees Ethan's friends as a litmus test of appropriate behavior. When Ethan hangs out with friends Amy feels are trustworthy, she is more trusting of his activities. However, she still has some concerns. Although Amy is comfortable with Ethan's friends and does trust him, she does not approve of all his online activities. When setting boundaries Amy uses a more indirect approach instead of confronting Ethan directly.

Amy: "I have told him I'm not crazy about [Facebook and Twitter] but I never actually, as far as I know, forbidden him. We just said we don't think it's a good idea."

However, when Amy is overly concerned over the type or amount of activity, she actively intervenes. For example, when Amy was concerned that Ethan was going a little "*crazy*" playing violent games, she started limiting his time

playing. However, about the same time this occurred Ethan had an accident that limited his mobility. Because Amy "*felt sorry for him,*" she allowed him unrestricted game play during his 6-month recovery. Once recovered, Amy reported that Ethan started spending significant time at other friend's houses playing online games. To encourage Ethan to spend more time at home with his friends, Amy purchased an Xbox for their home. For Amy, her ability to physically see her son while he is online helps her to feel comfortable about his activities.

Amy: "Because I could see what they were doing without them realizing I could see what they were doing . . . They get together and blow things to smithereens. At least they'll blow them to smithereens in my house."

Additionally, when Amy found out Ethan was downloading music from an illegal site she purchased a gift card so he could pay for music instead; she did this rather than explicitly forbidding the illegal behavior. This however did not result in Ethan stopping the practice right away.

Amy: "It was kind of a game of figuring out how, if they downloaded it, they would get caught . . . It was a big hoop-dee-doo and then we basically got them to start buying stuff."

Amy also commented on Ethan's habit of leaving his door open. For Amy this is a signal that Ethan is not engaging in any inappropriate or concerning activities.

Amy: "He doesn't close the door to his room so if he's in his room with the computer, the door's open. So I guess, that kind of stuff just makes me feel like he's OK."

Ethan and Amy often engage in renegotiation of boundaries typical of many families. Ethan volunteers information about what he does online and, according to Amy, seems to be listening to her cautions about online safety. Amy views Ethan's willingness to share and listen as a sign that he is acting responsibly online. Amy noted that she used to be more restrictive with Ethan when he was younger. As Ethan grows up, Amy appears to be relying more on trust than on monitoring when it comes to his safety.

Amy: "He's managed to convince me that he does keep in the back of his head what's safe or not safe. And so far we haven't had any problems from it, as far as I know . . . He's either learned to hide it really well or he's not doing it."

**Teen autonomy and boundary setting.** Ethan believes his parents trust him and reports they do not monitor or test him anymore to see if he is complying with their wishes. Additionally, he does appear to understand the risks associated with giving out personal information and reports using specific strategies to protect private information.

Ethan: "I avoid giving out as much information as possible because I would feel at risk if I did . . . I'll just make up a name

... use like a celebrity's birth date ... stuff like that ... I wouldn't for a video game just friend request random people."

Ethan remembers his parents being much more restrictive when he was younger, but as he got older, they became less involved in what he did online.

Ethan: "When I was younger, if I got in trouble with my computer, if I didn't want to show them something then they would check the browsing history. But, that was like when I was like 12 or 13."

Ethan: "No, they don't, I mean they don't really care that much anymore. They don't want me, well they're really big on me not handing out personal information but they don't check. So if I wanted to ..."

This shaped Ethan's views on parental monitoring, which were that monitoring was okay for younger kids but not acceptable for teenagers his age.

Ethan: "Yeah, I think when they're growing up. By growing up I mean like 12-15. So when they're kind of like shaping the path of their life. Just kind of a little bit, not really. But I think that it would be acceptable then to, I don't know, make sure your kid doesn't do something like that. Or doesn't do something that you think would be wrong."

Additionally, Ethan describes his mother as "not very tech savvy with anything," and his parents as "pretty strict" compared to his friends' parents.

Ethan: "... they are really big on me not using my actual name if I were to get Facebook. There was a point where at 10 pm each night they would turn off the Internet whereas my friends don't."

Generally, though, Ethan learned from his parents' earlier influence on his online activities. For instance, he admitted that he used to illegally download music, but he does not anymore.

Ethan: "Yeah, I download, Well, I used to download from Limewire illegally. But I stopped that around 4 or 5 years ago. I then bought things from Amazon and now I use Real Player which will download the music from Pandora and just get it that way for free. But I don't do Torrents or anything like that."

**Case summary.** In summary, Amy used to be more restrictive of Ethan's online behaviors when he was younger, but she has relaxed her control as Ethan got older. When Amy cannot personally observe, directly or indirectly, what Ethan is doing, she prefers to take a wait-and-see approach. When asked if she would use software to help monitor her son's activities, Amy replied, "not with him unless I caught him doing something I didn't like. And then I would say 'you get a chance; if I catch you it's over.'" Yet, she also admitted that if she tried to use software to monitor his online activities, she probably would be unsuccessful because of his advanced understanding of computers.

Although Ethan exhibits quite a bit of autonomy over his online behaviors, he still allows Amy's influence to impact his decisions. For example, he stopped illegally pirating music because of his parents' preference for him not to do so. In cases like Amy and Ethan, we saw the boundary between parental control and teen autonomy shift over time and with the context of each situation.

### *Overview of Parental Control and Access to Teen's Online Spaces*

In summary, different levels of parental control resulted in different boundary dynamics with respect to (a) permeability of adolescents' privacy boundaries and (b) adolescents' ability to negotiate privacy boundaries. For example, strategies for assessing adolescents' online activities ranged from simply asking adolescents what they were doing, to reading text messages, to checking history and leveraging parental controls, to having open access to Facebook accounts. As can be seen by the four case studies above, parental control over teens' online spaces and access to teens' online content and activities can vary drastically, from Jan's open access to Carly's online world to Valerie's virtually nonexistent presence in Justin's.

*Moderate parental control with variable access.* The majority of our cases ( $N = 7$ ) fell in the moderate area of the continuum with variable access to teens' online spaces. These parents typically established some rules about certain types of activities and engaged in a variety of monitoring activities, although less often than the most restrictive parents. For these parents, perceived risks varied depending on the specific activity. Parents in this group reported both discussing their monitoring activities with their adolescents as well as only bringing up issues should the need arise. These parents often discussed their attempt to balance respecting their teens' privacy and making sure they were not getting into trouble online. Further, these parents tended to be more receptive to revisiting and negotiating boundaries with their teens. This resulted in variable access to adolescents' online space based on situational context.

As boundaries shifted, conflict sometimes occurred between parents and teens because of boundary ambiguity, but the willingness of parents and teens to continually renegotiate these boundaries often served to resolve this conflict. In some cases, unfortunately, when parental boundary setting was variable, it often seemed inconsistent and rather arbitrary, where parents were actively controlling one type of online activity while ignoring another. For example, one parent personally listened to all music her daughter listened to in order to ensure it was appropriate before her daughter could download the song. Here, the mother was clearly setting a boundary related to inappropriate content. However, there were no boundaries in place regarding the source of the music. That is, the mother was aware that the daughter was downloading music illegally, commenting that as long as "it was free" it was not an issue. Therefore,

although moderate parental control allowed for dynamic boundary negotiation between parents and teens, it was also often accompanied by a sense of uncertainty, which resulted in different expectations between parents and teens.

*High parental control with open access.* We observed three cases ( $N = 3$ ) where parents reported having explicit rules and restrictions for their adolescents' online activities as well as actively monitoring their behaviors. Rules included friending one or both parents as a condition of being on Facebook, sharing passwords to all online accounts, and open access to text messages. Such access represents high permeability of adolescents' privacy boundaries. Parents who were at this end of the continuum had increased access to adolescents' information and interactions with others. Similar access to this information would have been unlikely before the advent of the Internet and online social networks.

For these parents, access to information or restrictions on the activities in which adolescents could participate were well defined. To ensure adherence to rules, these parents employed a number of monitoring techniques, including checking computer history, restricting access to content via software-enabled parental controls, and requiring prior approval before engaging in certain online activities. Parents reported that their adolescents were aware of their monitoring activities and that they monitored their adolescents on a regular basis with two of the three parents monitoring at least weekly. Further, for these parents, open access to their adolescent's online space was not up for negotiation. In Case C, however, we saw that Rhonda insisted on having open access to Brittany's online spaces and even resorted to blocking Brittany's access to spaces that she did not want Brittany to frequent. So, in addition to open access to Brittany's online spaces, Rhonda severely limited any online experiences Brittany could have had (both positive and negative) when Rhonda felt that she could not adequately control Brittany's behavior in any other way. For these parents, concern for their teens' safety outweighed the teens' desire for personal privacy. Although many teens understood their parents' need to monitor their online activities, for Brittany in particular, teens also experienced a sense of frustration when they believed their parents mistrusted them. When teens felt that parental control was violating their personal need for privacy, they often took subversive measures to achieve autonomy, which further damaged the trust relationship between parent and teen.

*Low parental control with little or no access.* At the limited end of the spectrum, there were two cases ( $N = 2$ ) where parents were more hands-off regarding their children's online behaviors. However, it is interesting to note that both of these parents expressed quite a bit of concern for their teens' online safety, though they also generally expressed high level of trust in their teens. In these cases, parents discussed safety issues with their teens, but they did not outright restrict activities or monitor whether their adolescents were abiding by their stated wishes. Although one

parent did have access to her son's Facebook, it was only as a result of her son friending her, not a request by the mother. The hands-off approach of these parents resulted in low permeability of their adolescent's privacy boundaries, compared to other parents in this study. Furthermore, because the teen's online activities were not restricted or monitored, the need to renegotiate boundaries was typically unnecessary. Knowledge of technology often played a role in these parents' decision not to monitor their adolescents' behavior. This raises questions as to the role that technology knowledge plays in parents' boundary setting and monitoring activities. Technology knowledge may also be closely aligned with the feelings of loss of control expressed by the parents in our sample. For instance, in Case B, there was a clear imbalance between Justin's level of technology expertise and Valerie's. When parents feel like they have to go to their teens for help regarding technology, this often changes the boundary dynamics between parents and teens, making parents feel less equipped to guide their teens' online behaviors.

#### *Teens' Responses to Parental Control*

As these cases illustrate, not all of the teens in our sample responded to their parents' involvement in their online lives in the same way. In Carly's case (Case A), she was generally comfortable with allowing her mom to heavily monitor her online activities. Possibly as a result of her mother's high level of control, Carly exhibited very few risk-taking behaviors but also tended to limit her overall online engagement, which also limited her online experiences. In extreme cases (not necessarily Carly's), teens who are highly restricted by their parents and do not have autonomy over their online interactions may not have the opportunity to develop problem-solving or coping skills to handle online risks by themselves. This is because parents who exert a high level of control often do so by restricting online access. Therefore, when the parent-teen boundary profile is characterized by extremely high parental control and low teen autonomy, especially for older teens, this may inhibit adolescent development regarding appropriate online behavior or digital skills (Ahn, 2011). We characterize this type of adolescent profile as a "Compliant Follower" (see Figure 2).

Alternatively, in Case B, Valerie had very little involvement in Justin's online activities. Although concerned about his online activity, she was more concerned with ensuring she respected his privacy. Her low level of parental control combined with his high level of autonomy characterizes him as an "Unlimited Risk-Taker" (Figure 2). Essentially, Justin could do whatever he wanted online because his parents' concern for his privacy was the focus of their boundary setting rules. Valerie was aware that he frequently pirated digital content, but she did nothing to interfere with his online behavior. Teens in this category are at risk of having more autonomy than they may be ready to handle. For instance, Justin believed that there would be no consequences to his actions because he was a minor. However,

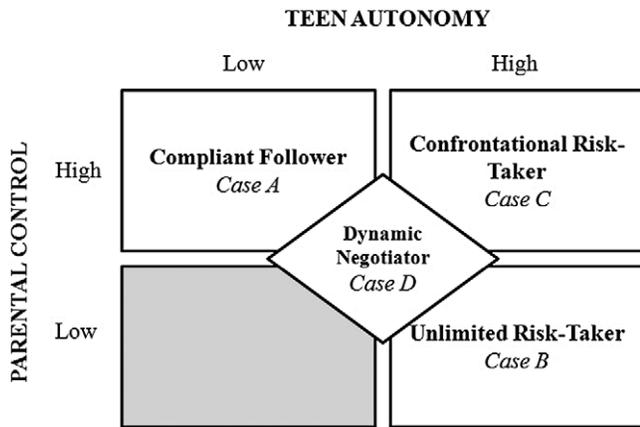


FIG. 2. Dyadic model of parental control versus teen autonomy.

there have been cases where teens have been prosecuted for digital piracy (Defalco, 2005).

In cases with high levels of parental control and high levels of teen autonomy, opportunities for boundary conflict is high. We characterized this parental control, teen autonomy adolescent profile as “Confrontational Risk-Takers” (see Figure 2). In these cases, teens seemed to increase their risk taking behaviors, at times, just to make a statement to their parents. For example, Brittany (Case C) often blatantly disregarded Rhonda’s wishes and circumvented her mother’s attempts to control what she posted on Facebook. In this scenario, tensions between the parent and teen tend to be the highest, potentially endangering the trust relationship.

Finally, most parent–teen boundary profiles tended not to go to such extremes, often varying between the extremes for different situations or being more “Dynamic Negotiator” (see Figure 2). For example, Ethan’s mother’s adjusted her approach as Ethan got older. Amy was more involved with Ethan’s online activities when he was younger, but she gave him more autonomy as he got older. In response, Ethan’s online behavior as a 17-year-old balanced some of the earlier values instilled in him by his parents with his own autonomous decisions about how to behave online, even though his parents rarely intervene directly. We believe that this moderate parenting approach and teen response allows for renegotiation of boundaries and may lead to more positive adolescent online safety outcomes. However, we offer a word of caution, because when the boundary between parents and teens shifts too frequently, arbitrarily, or is not clearly communicated between both parties, these conditions are prone to cause boundary conflict (Petronio, 2002).

In summary, Figure 2 illustrates the dyadic relationships between parental control and teen autonomy that emerged from our analysis. This model is intended to be descriptive instead of inferential, as it highlights potential boundary scenarios between parents and teens but does not suggest causal relationships. Although we cannot say that certain parenting styles lead to specific teen responses or vice versa,

we have made some general observations as to the potential benefits and drawbacks associated with each of these scenarios. One final note about Figure 2 is that we did not observe any instances of low parental control coupled with low levels of teen autonomy in terms of teens’ online behavior. This may be because of the interrelated boundary dynamic between parental control and teen autonomy; when one party relinquishes boundary control, the other party implicitly gains that control by default. In this case, if parents do little to control the online behaviors of their teens, teens inherit the independence to act autonomously online. However, it may be an interesting area for future research to see if there are parent–teen relationships characterized by this unique type of boundary dynamic.

## Discussion

The goal of this research was to explore the interplay between parents and teens in relation to the negotiation of boundaries in online contexts. Framing our findings in relation to CPM theory, we identified five themes that shed light on the unique dynamics that may be at play with regard to setting and regulating boundaries for today’s connected adolescents: (a) parental feelings of loss of control; (b) imbalance in technology expertise; (c) using physicality to create virtual boundaries; (d) indirect boundary negotiation; and (e) drawing boundaries beyond the parent–teen relationship.

### *Parental Feelings of Loss of Control*

Many parents expressed frustration or resignation at a perceived loss of control over their adolescents’ online activities. Specifically, some parents felt that they could control neither the outgoing information their adolescents chose to share, nor the incoming information to which their teens were exposed. Some scholars suggest that the availability of information online and parents’ inability to control access to that information is changing the process of moral development in today’s youth (Bradley, 2005). CPM theory (Petronio, 2010) points out that such privacy boundary shifts are an important part of the adolescent individuation process into adulthood but are difficult for parents to handle, “largely because they vie for control, parents and adolescents battle over the way borders of privacy boundaries for the adolescent are marked and regulated” (Petronio, 2010, p. 185).

Our study also suggests that the Internet and other connected technologies have shifted boundary dynamics between parents and teens even further by giving teens generally more access to information and online interactions that are unmediated by their parents. Therefore, these technologies afford higher levels of teen autonomy, contributing to parents’ sense of loss of control. Parents also expressed concerns over their inability to control whether and how others shared information about their teens because they could not mediate these interactions as well. To address this loss of control, some parents have implemented rules to protect information, others have raised the issue indirectly

with their adolescents, and still others felt there was not much they could do to impact what was viewed or shared. Past research suggests that hypersensitive parental responses because of a sense of loss of control may lead to poorer parenting choices (Petronio, 2010). Our study illustrates that such feelings may lead to parents trying to overly control and restrict teens' online access as much as possible; this type of reaction may limit risks but also limits the benefits teens may derive from engaging online. On the other hand, we also found that a lack of perceived parental control may result in some parents giving up on trying to be actively engaged in their teens' online lives at all, leaving teens exposed to dealing with online risks by themselves.

### *Parental Lack of Technology Expertise*

Closely related to feelings of loss of control was parents' lack of understanding of technology. This struggle can be exacerbated in homes where the children know significantly more about computers and the Internet than their parents (boyd, 2007; Lenhart & Madden, 2007; Mesch, 2009). Two-thirds of the parents we interviewed expressed concerns that their adolescents knew more about the Internet and technology than they did. A number told us that they turn to their children for help with computer issues; in fact one parent enlisted the help of her adolescent to install software used to monitor a younger sibling. For most parents, their adolescents' superior knowledge created a challenge in terms of their ability to monitor and understand what they were doing online. Further, lack of understanding may have undermined parents' ability to set boundary rules. Parents who recognized that their adolescents were more technologically advanced than they were often did not attempt to place restrictions or monitor these tech-savvy adolescents, expressing helplessness and a general loss of control over the situation.

Moreover, parents also expressed feelings of inadequacy about their ability to educate their adolescents about online safety. In these cases, limited parental monitoring or engagement was less about established "trust" and more about parents' inability to help their teens in virtual spaces. Additionally, although parents are responsible for monitoring and protecting their children, they often relied on their tech-savvy adolescent to fix problems related to computer or Internet use. This may suggest a shift in traditional roles and power dynamics, one where the adolescent becomes the teacher instead of the parent. This may signal a shift in power with regards to who sets and controls online boundaries within the family.

### *Framing Virtual Boundaries Using Physical Spaces*

Although physical boundaries are traditionally used for boundary setting in families, the parents we interviewed also described how they use physical spaces to define boundaries in the virtual world. One parent reported feeling more secure when her son was engaging online while

physically in her home. The fact that she could observe what her son was doing, even if only at a distance, made her feel more comfortable about his behavior. Several parents required computer use to take place in an open area such as a family room or dining room. These parents felt that because the computers were used in open spaces, their children were aware that monitoring could occur and as a result they restricted activities to those likely to be sanctioned or approved by parents. Others allowed computers in their children's rooms but only with the understanding that they might periodically enter the room to look over chat or texting logs or to observe other aspects of what the adolescent was doing.

Some parents viewed their children's rooms as an indicator of a nonpermeable boundary. For example, one parent described her adolescent's room as his private space. When the computer was in use and the door was closed, she would not enter his room even if she suspected he was engaged in restricted or forbidden activities. Another parent felt like she had no right to monitor what her son did on his computer because he bought the computer with his own money. Only if she owned the computer did she feel like it was permissible to exert control over what her son did online. A potential problem with using physical boundaries to define virtual boundaries is that some parents may get a false sense of security that their teens are behaving appropriately online, while the teen may still be engaged in risky behaviors. For example, it is fairly easy to tell if a teen is engaging in sexual activity with another teen while physically in the teen's room with the door open. However, it is difficult to determine if a teen is interacting with a friend or a stranger inappropriately while online simply by observing the teen typing or glancing over the teen's shoulder.

### *Direct Versus Indirect Boundary Negotiation*

We also confirmed that both parents and teens varied the strategies they used to negotiate the boundaries between parental control and teen autonomy of virtual spaces, using both implicit and explicit privacy rules (Petronio, 1994, 2002). For example, some parents installed parental monitoring software unbeknownst to their teens while other parents did so with the knowledge of their teens. Similarly, some parents sat with their teens when monitoring their Facebook posts, whereas others chose to do so without their teens' knowledge. Similar to past CPM studies that examined parent-child boundary turbulence caused by parents Facebook "friending" their children (Child & Westermann, 2013), we also found parental control exerted through social media varied across our teen participants. For example, Jan actively monitored Carly's Facebook as well as looking at her friends' photos and wall posts. However, she used this monitoring as a way to actively engage her daughter in conversations about Carly's online behavior. Rhonda, on the other hand, checked Brittany's Facebook page while Rhonda was at work and would log in to Brittany's account and make changes to her daughter's Facebook page without

Brittany's consent or knowledge. Other parents made "friending" them on Facebook a mandatory condition if their teens were to have a Facebook account; in some cases, teens opted not to have a Facebook account because of this parental mandate.

Thus, teens also exhibited both direct and indirect strategies to manage or protect their online privacy boundaries. For example, it is possible that Carly's limited use of Facebook and highly restrictive friending rules were a way for her to manage the amount of information accessible by her mother. Did Carly create a boundary between her friends and her mother by limiting her participation online? Such behavior may be a way of protecting friends from her mother's watchful eye. Brittany directly disregarded Rhonda's rules for what she could or could not post to Facebook. However, Brittany also took more indirect measures by changing her Facebook password when she thought her mom was not paying attention. These more indirect boundary setting behaviors exhibited by parents and teens suggest that boundaries are much more complex than a simple set of rules dictated by parents to control teens' online behavior. In some cases, parents who believe that they exert a high level of control over their teens' online behaviors may have very little knowledge of what they are actually doing online. In other instances, parents may try to regain the upper hand by taking their own subversive measures. However, this type of indirect boundary negotiation can become harmful when parents and teens become aware that their trust relationship has been violated.

Understanding of technology also played a large role in adolescents' ability to establish boundaries, protect boundaries, and circumvent boundaries established by their parents. Adolescents who described themselves as being more technologically knowledgeable than their parents reported using this knowledge to protect boundaries in two key ways. First, some described events where they outwardly challenged their parent's ability to monitor their online behaviors even to the point of mocking their parent's abilities to do so. Second, adolescents commented they could apply their technology skills behind the scenes to circumvent parental attempts to limit or monitor access, often succeeding at this without their parent's knowledge. Unique to the online context is the ability of adolescents to leverage technology knowledge to thwart or circumvent parental attempts at monitoring or restricting activities.

### *Boundaries Beyond the Parent-Teen Relationship*

Although this article specifically discusses the boundary dynamics and challenges between parents and their own teens in respect of teen online behavior, we observed that this conflict extends beyond the parent-teen relationship. When parents monitor their teens' online behavior, because of the connected nature of social media, they often observe inappropriate behavior from their teens' peers. For example, although Jan was clear about the need for open access to Carly's online information, it did create issues for her

regarding permeating boundaries of those outside the immediate family. When it came to accessing information posted by Carly's Facebook friends, boundaries were unclear. For Jan, access to this information created a dilemma in terms of where to draw privacy boundaries. Was it her responsibility to tell parents what she was observing or should she keep the information to herself? One of the other parents in our interviews would probably say that Jan should not invade Carly's friends' online privacy.

When this mother's son was caught with one of his friends looking at pornography, the friend's mother called her son. When this mother found out that this boundary had been breached, she told the other mother, "*don't you dare call my kid*" because she felt that it was an issue that was none of the other mother's business. In contrast, however, Valerie would probably have approved if Jan tried to intervene if Jan saw inappropriate behavior from Valerie's son. Prior to the Internet, and especially in small towns, Valerie believes that individuals tended to watch out for others. If you were doing something wrong "*someone's mom is going to call [your] mom and dad*," Valerie reminisced. However, now, Valerie feels that the online world has made it harder to monitor Justin's behavior, "*because everybody is kind of in the dark*."

The varying perspectives on whether parents should help parent other teens' online behavior raises new questions with regard to where protection of one's adolescent ends and the potential invasion of others' privacy begins. We believe that future research should further investigate the perceptions of parental control, teen autonomy, and boundary regulation as it extends beyond the parent-teen dyads and into the community-at-large.

## **Limitations and Conclusions**

Using CPM as our theoretical lens, we examined how parents play a key role in establishing the boundaries that define privacy for their adolescents online. However, boundary turbulence often occurs as parents and teens negotiate the dialectical struggle between remaining connected as a cohesive, family unit versus teens' developmental process of establishing a sense of autonomy apart their families (Petronio, 2010). In many ways, the issues of negotiating online privacy and safety remain the same as before the Internet; however, five distinct differences amplify the risks and potential conflict between parents and adolescents when it comes to online behavior and setting boundaries. First, adolescents' direct access to online information and social interactions that are, for the most part, unmediated by parents has inherently increased teen autonomy and decreased parental control, resulting in a sense of parental helplessness when it comes to ensuring adolescent online safety. As a result, some parents try to restrict online access as much as possible whereas others relinquish control altogether. Both extremes can result in suboptimal outcomes.

Second, for teens who are more tech savvy than their parents, this power shift becomes even more prominent

because parents who are not comfortable with technology feel inadequate in regulating what their adolescents do online. Third, parents may try to regain control by setting traditional boundaries based on physical spaces, such as only permitting their adolescents to use the computer in a common room or with the door open. However, the ability to adequately monitor adolescents' behaviors in online contexts is more difficult. Because deviant online behavior may not be apparent in a teen's physical actions, this boundary setting approach may not always be effective. Fourth, because of the intangible nature of technology use, both parents and teens may resort to indirect boundary control strategies, such as covert monitoring by parents or evasive measures taken by the teen, making boundary regulation even more complex. Fifth, parents who are able to navigate the aforementioned challenges and are actively involved in their teens' online lives have the added moral dilemma of being able to glimpse into the lives of their children's friends. Does this level of access give these parents a moral obligation to ensure the online safety of other teens' or should parents respect privacy boundaries in respect to teens that are not their own?

It is worth noting a few limitations of this study. First, the number of interviews is relatively small and from a homogeneous, self-selected sample of parents and teens from central Pennsylvania. Because of the small sample size, the self-selection of primarily mothers, and the homogeneity of our sample, we must be careful in drawing broad generalizations based on these families. Instead, our findings may be useful in informing future studies that can provide empirical, confirmatory validation of our findings. Future research should include a more diverse population of participants, including individuals of varying economic status and exposure to and use of technology. Our results provide initial direction but further research is needed to adequately identify the unique differences the online world presents in relation to boundary setting and negotiations. Second, the data we collected represent only a snapshot in time. Boundaries are constantly renegotiated within families; therefore longitudinal studies of families with children in late childhood (age 11) through adulthood (age 18) would provide a better understanding of parent-adolescent negotiations and privacy boundaries in online contexts and how those negotiations are revisited over time.

In this study, we examined the boundary dynamics at play as parents and teens negotiate a unique family balance between parental control and teen autonomy in terms of adolescent online behaviors. Using CPM as our theoretical lens (Petronio, 2002), we were able to identify examples of new family dynamics that may be developing. The introduction of the Internet, social networking, online gaming, and texting are creating new challenges for parents and adolescents with regards to setting boundaries, respecting privacy, and ensuring adolescents' safety. Within our sample, we saw evidence of the push and pull between how much control to exert and how much to give up. With

regard to theory development, these emerging themes may provide researchers with insights regarding shifts in power dynamics related to boundary management and information control within families. Additionally, the recognition of "virtual signals" in boundary setting and management (e.g., not friending a parent or limiting participation when activities are monitored) may represent a new dimension within boundary and privacy research. With regard to practice, such insights may help parents better understand issues and approaches to setting boundaries in the online world. Minimally, they should know they are not alone in their struggles. This study provides some insights into the dynamics of privacy boundaries in families related to adolescents' online activities. Findings from this study may be useful in guiding more comprehensive sampling studies, both qualitative and quantitative, that examine new challenges related to setting boundaries, respecting privacy, and ensuring adolescents' online safety.

## Acknowledgments

The authors wish to thank the participants in this study and Bradley C. Dellinger who helped us collect and code our interview data. The authors gratefully acknowledge the financial support of the National Science Foundation under grant CNS-1018302. Part of the work of Heng Xu was done while working at the National Science Foundation. Any opinions, findings and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the National Science Foundation.

## References

- Agosto, D., & Abbas, J. (2010). High school seniors' social network and other ICT preferences and concerns. Paper presented at the ASIS&T 2010.
- Agosto, D.E., Abbas, J., & Naughton, R. (2012). Relationships and social rules: Teens' social network and other ICT selection practices. *Journal of the American Society for Information Science and Technology*, 63(6), 1108–1124.
- Ahn, J. (2011). The effect of social network sites on adolescents' social and academic development: Current theories and controversies. *Journal of the American Society for Information Science and Technology*, 62(8), 1435–1445.
- Albert, C., & Salam, A. (2012). Protecting children online: Exploring the impact of an online identifier for registered sex offenders on adult internet users' online information sharing behaviors. Paper presented at the AMCIS 2012 Proceedings, Seattle, WA.
- Altman, I. (1974). Privacy: A conceptual analysis. In D.H. Carson (Ed.), *Man-Environment interactions: Evaluations and applications: Part 2* (Vol. 6, pp. 3–28). Washington, DC: Environmental Design Research Association.
- Altman, I. (1975). *The environment and social behavior: Privacy, personal space, territory, and crowding*. Monterey, CA: Brooks/Cole Publishing.
- Altman, I. (1976). Privacy: A conceptual analysis. *Environment and Behavior*, 8(1), 7–30.
- Altman, I. (1977). Privacy regulation: Culturally universal or culturally specific? *Journal of Social Issues*, 33(3), 66–84.

- Associates, H.R. (2012). The online generation gap. Contrasting attitudes and behaviors of parents and teens. Washington, D.C.: Family Online Safety Institute.
- Bartlett, L. (2007). Bullies in cyberspace spark growing concern. *Space Daily*.
- Baumrind, D. (1987). A developmental perspective on adolescent risk taking in contemporary America. *New Directions for Child Development*, 1987(37), 93–125.
- Baumrind, D. (2005). Patterns of parental authority and adolescent autonomy. *New Directions for Child and Adolescent Development*, 2005(108), 61–69.
- boyd, d. (2007). Why youth (heart) social network sites: The role of networked publics in teenage social life. In D. Buckingham (Ed.), *Youth, identity, and DIGITAL media* (pp. 119–142). Cambridge, MA: The MIT Press. Vol. Berkman Center Research Publication No. 2007-16.
- boyd, d. (2008). Facebook's privacy trainwreck: Exposure, invasion and social convergence. *Convergence: The International Journal of Research into New Media Technologies*, 14(1), 13–20.
- boyd, d. (2014). *It's complicated: The social lives of networked teens*. New Haven, CT: Yale University Press.
- Bradley, K. (2005). Internet lives: Social context and moral domain in adolescent development. *New Directions for Youth Development*, 2005(108), 57–76.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101.
- Burke, M., Adamic, L.A., & Marciniak, K. (2013). Families on Facebook. Paper presented at the Seventh International AAAI Conference on Weblogs and Social Media, Palo Alto, CA.
- Child, J.T., & Westermann, D.A. (2013). Let's be Facebook friends: Exploring parental Facebook friend requests from a Communication Privacy Management (CPM) perspective. *Journal of Family Communication*, 13(1), 46–59.
- Child, J.T., Pearson, J.C., & Petronio, S. (2009). Blogging, communication, and privacy management: Development of the blogging Privacy Management measure. *Journal of the American Society for Information Science and Technology*, 60(10), 2079–2094.
- Child, J.T., Petronio, S., Agyeman-Budu, E.A., & Westermann, D.A. (2011). Blog scrubbing: Exploring triggers that change privacy rules. *Computers in Human Behavior*, 27(5), 2017–2027.
- Child, J.T., Haridakis, P.M., & Petronio, S. (2012). Blogging privacy rule orientations, privacy management, and content deletion practices: The variability of online privacy management activity at different stages of social media use. *Computers in Human Behavior*, 28(5), 1859–1872.
- Collins, W.A., Laursen, B., Mortensen, N., Luebker, C., & Ferreira, M. (1997). Conflict processes and transitions in parent and peer relationships: Implications for autonomy and regulation. *Journal of Adolescent Research*, 12(2), 178–198.
- Cranor, L., Durity, A.L., Marsh, A., & Ur, B. (2014). Parents' and teens' perspectives on privacy in a technology-filled world. Paper presented at the Symposium on Usable Privacy and Security (SOUPS), Menlo Park, CA.
- Czeskis, A., Dermendjieva, I., Yapit, H., Borning, A., Friedman, B., Gill, B., Kohno T. (2010). Parenting from the pocket: Value tensions and technical directions for secure and private parent-teen mobile safety. In *Proceedings of the Sixth Symposium on Usable Privacy and Security* (pp. 1–15). Redmond, WA: ACM.
- De Souza, Z., & Dick, G.N. (2008). Information disclosure by children in social networking—And what do the parents know? Paper presented at the AMCIS 2008 Proceedings.
- De Wolf, R., Willaert, K., & Pierson, J. (2014). Managing privacy boundaries together: Exploring individual and group privacy management strategies in Facebook. *Computers in Human Behavior*, 35(2014), 444–454.
- Defalco, B. (2005). Teen convicted under Internet piracy law. Retrieved from [http://www.usatoday.com/tech/news/techpolicy/2005-03-07-az-teen-downloader-convicted\\_x.htm](http://www.usatoday.com/tech/news/techpolicy/2005-03-07-az-teen-downloader-convicted_x.htm)
- Derlega, V.J., & Chaikin, A.L. (1977). Privacy and self-disclosure in social relationships. *Journal of Social Issues*, 33(3), 102–115.
- Eisenhardt, K.M. (1989). Building theories from case study research. *The Academy of Management Review*, 14(4), 532–550.
- Finkenauer, C., Engels, R.M.E., & Meeus, W. (2002). Keeping secrets from parents: Advantages and disadvantages of secrecy in adolescence. *Journal of Youth and Adolescence*, 31(2), 123–136.
- Golish, T., & Caughlin, J. (2002). "I'd rather not talk about it": Adolescents' and young adults' use of topic avoidance in stepfamilies. *Journal of Applied Communication Research*, 30(1), 78–106.
- Gregor, S. (2006). The nature of theory in information systems. *Management Information Systems Quarterly*, 30(3), 611.
- Guba, E.E., & Lincoln, Y.S. (1994). Competing paradigms in qualitative research. In N.K. Denzin & Y.S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 105–117). London: SAGE Publications.
- Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. *Field Methods*, 18(1), 59–82.
- Hawk, S.T., Hale, W.W., Raaijmakers, Q.A.W., & Meeus, W. (2008). Adolescents' perceptions of privacy invasion in reaction to parental solicitation and control. *The Journal of Early Adolescence*, 28(4), 583–608.
- Klein, H.K., & Myers, M.D. (1999). A set of principles for conducting and evaluating interpretive field studies in information systems. *MIS Quarterly*, 23(1), 67–94.
- Kloep, M., Güney, N., Çok, F., & Simsek, Ö.F. (2009). Motives for risk-taking in adolescence: A cross-cultural study. *Journal of Adolescence*, 32(1), 135–151.
- Laufer, R.S., & Wolfe, M. (1977). Privacy as a concept and a social issue: A multidimensional developmental theory. *Journal of Social Issues*, 33(3), 22–42.
- Lenhart, A. (2005). Protecting teens online. Retrieved from [http://www.pewinternet.org/files/old-media/Files/Reports/2005/PIP\\_Filters\\_Report.pdf.pdf](http://www.pewinternet.org/files/old-media/Files/Reports/2005/PIP_Filters_Report.pdf.pdf)
- Lenhart, A., & Madden, M. (2007). Teens, privacy & online social networks. PEW Internet & American Life Project. Retrieved from [http://www.pewinternet.org/ppf/tr/211/report\\_display.asp](http://www.pewinternet.org/ppf/tr/211/report_display.asp)
- Lenhart, A., Rainie, L., & Lewis, O. (2001). Teenage life online: The rise of the instant-message generation and the Internet's impact on friendships and family relationships. Washington, DC: Pew Internet & American Life Project.
- Leung, L., & Lee, P.S.N. (2012). The influences of information literacy, internet addiction and parenting styles on internet risks. *New Media & Society*, 14(1), 117–136.
- Livingstone, S. (2008). Taking risky opportunities in youthful content creation: Teenagers' use of social networking sites for intimacy, privacy, and self-expression. *New Media & Society*, 10(3), 393–411.
- Livingstone, S., & Helsper, E.J. (2008). Parental mediation of children's internet use. *Journal of Broadcasting & Electronic Media*, 52(4), 581–599.
- Livingstone, S., Ólafsson, K., O'Neill, B., & Donoso, V. (2012). Towards a better Internet for children: Findings and recommendations from EU Kids Online to inform the CEO coalition. London, UK: The London School of Economics and Political Science.
- Lwin, M.O., Stanaland, A.J.S., & Miyazaki, A.D. (2008). Protecting children's privacy online: How parental mediation strategies affect website safeguard effectiveness. *Journal of Retailing*, 84(2), 205–217.
- Madden, M., Lenhart, A., Duggan, M., Cortesi, S., & Gasser, U. (2013). *Teens and technology 2013*. Pew Internet.
- McKinney, K.D. (1998). Space, body, and mind: Parental perceptions of children's privacy needs. *Journal of Family Issues*, 19(1), 75–100.
- Mesch, G.S. (2009). Parental mediation, online activities, and cyberbullying. *CyberPsychology & Behavior*, 12(4), 387–393.
- Myers, M.D. (2009). *Qualitative research in business & management*. London: SAGE.
- Myers, M.D., & Newman, M. (2007). The qualitative interview in IS research: Examining the craft. *Information and Organization*, 17(1), 2–26.
- Petronio, S. (1994). Privacy binds in family interactions: The case of parental privacy invasion. In W.R.C.B.H. Spitzberg (Ed.), *The dark side of interpersonal communication* (pp. 241–257). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.

- Petronio, S. (2002). *Boundaries of privacy: Dialectics of disclosure*. Albany, NY: SUNY Press.
- Petronio, S. (2010). Communication privacy management theory: What do we know about family privacy regulation? *Journal of Family Theory & Review*, 2(3), 175–196.
- Petronio, S. (2013). Brief status report on Communication Privacy Management theory. *Journal of Family Communication*, 13(1), 6–14.
- Prichard, J., Spiranovic, C., Watters, P., & Lueg, C. (2013). Young people, child pornography, and subcultural norms on the Internet. *Journal of the American Society for Information Science and Technology*, 64(5), 992–1000.
- Rosen, L.D., Cheever, N.A., & Carrier, L.M. (2008). The association of parenting style and child age with parental limit setting and adolescent MySpace behavior. *Journal of Applied Developmental Psychology*, 29(6), 459–471.
- Shin, W., Huh, J., & Faber, R.J. (2012). Tweens' online privacy risks and the role of parental mediation. *Journal of Broadcasting & Electronic Media*, 56(4), 632–649.
- Sorbring, E., & Lundin, L. (2012). Mothers' and fathers' insights into teenagers' use of the internet. *New Media & Society*, 14(7), 1181–1197.
- Staksrud, E., & Livingstone, S. (2009). Children and online risk: Powerless victims or resourceful participants? *Information, Communication and Society*, 12(3), 364–387.
- Strauss, A., & Corbin, J. (1990). *Basics of qualitative research: Techniques and procedures for developing grounded theory*. Thousand Oaks, CA: SAGE.
- Tang, S., & Dong, X. (2006). Parents' and children's perceptions of privacy rights in China: A cohort comparison. *Journal of Family Issues*, 27(3), 285–300.
- Trauth, E.M., & Jessup, L.M. (2000). Understanding computer-mediated discussions: Positivist and interpretive analyses of group support system use. *MIS Quarterly*, 24(1), 43–79.
- Walsham, G. (1995). Interpretive case studies in IS research: Nature and methods. *European Journal of Information Systems*, 4, 74–81.
- Williams, A. (2003). Adolescents' relationships WITH parents. *Journal of Language and Social Psychology*, 22(1), 58–65.
- Wisniewski, P., Xu, H., Rosson, M.B., & Carroll, J.M. (2014). Adolescent online safety: The “moral” of the story. Paper presented at the CSCW 2014, Baltimore, MD.
- Witzel, A. (2000). The problem-centered interview. *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research*, 1(1). Retrieved from <http://www.qualitative-research.net/index.php/fqs/article/view/1132>
- Yardi, S.A. (2012). *Social media at the boundaries: Supporting parents in managing youth's social media use*. Unpublished dissertation. Georgia Institute of Technology, Atlanta, GA.