

Challenges to building youth's online safety knowledge from a family perspective: Results from a youth/parent dyad study

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Abstract

This paper overviews a dyadic study of youth knowledge and understandings of online privacy and risk and highlights challenges that the study reveals about youth online risk taking and privacy protective measures from a family perspective. A full overview of the qualitative, dyadic study of 40 youth/parent dyads is provided, with an emphasis on findings surrounding youth understandings, parent perceptions of youth understandings, and parents' attempts to influence youth understandings. From these findings, we highlight two challenges to youth online risk taking and online privacy knowledge development: a disconnect between youth knowledge and their parents' understanding of that knowledge; and confusion about when, how, and what youth should be taught about online privacy and risk.

1. Introduction

When exploring challenges in youth (i.e., children under age 18) online safety, it is important to consider how the users—the youth themselves—conceptualize these ideas and think about their privacy and risk-related choices online. It is also important to know how youth are learning about the factors that impact their safety online to strategize ways to support them in this learning. Through a social learning lens [1], knowing more about how parents understand and attempt to influence their children is a good starting place when thinking about external factors that contribute to youth knowledge, since parents are often the earliest source of knowledge and can also control online access. Studying youth and parent knowledge together creates an opportunity to gain insight into not only what youth know, but how parents attempt to influence that knowledge.

To develop some of these understandings, we conducted a qualitative, dyadic study to learn about 40 youth's knowledge and perceptions of online privacy and online risk, as well as their parents' involvement in the development of that knowledge. In this paper, we briefly present that study and its findings, then use those findings to discuss challenges to youth online privacy and risk knowledge and learning,

especially as it relates to parent/child relationships. To achieve these purposes, we asked the question: *What does a study of youth and parent perceptions of online privacy and online risk reveal about challenges to youth online risk taking and privacy protective knowledge and learning?*

2. The Study

2.1 Purpose and Rationale

Most of today's youth are "digital by default" [8], but are also some of the most vulnerable consumers of technology and the internet from a developmental standpoint [6]. This combination creates a host of challenges to securing youth safety online, while also making sure they can use and explore all the benefits that the online world has to offer. An important starting place to understanding these challenges is to know more about what youth know about online privacy and risk, and what factors influence that knowledge. Currently, such understandings of youth awareness are understudied [7], and our study sought to fill this gap. Specifically, we chose to investigate youth knowledge of online privacy and risk alongside parents' attempts to influence that developing knowledge by answering three research questions: (1) How do youth define and understand online privacy and risk? (2) How do parents understand their children's knowledge of online privacy and risk? and (3) How, if at all, do parents influence their children's online privacy and risk understandings?

2.2 Methodology

Whereas extant studies surrounding youth privacy and risk knowledge tend to investigate a narrow age range of youth, our study² broadly encompassed United States youth in grades 3-12 (ages 8 to 18) and their parents. In total, we interviewed 4 youth from each grade in 3rd-12th grades and one of their parents, for a total of 40 youth/parent dyads (80 participants). Participant recruitment was conducted by a contracting research firm that used a preexisting user database. Youth participants included 19 girls and 21 boys aged 8-18, and parent participants included 35 moms and 5 dads aged 31-59 (mean=42.85). Dyad interviews lasted about 90 minutes, and dyads were briefed about the study together but interviewed separately to reduce the possibility of influencing each others' responses. Data were collected

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anonymously using an online survey and semi-structured interviews conducted via a video platform.

Qualitative data analysis for the study was guided by coding methods outlined by Johnny Saldaña [5], and proceeded across four rounds and two cycles of coding. All three authors collaborated on analysis and theming of the data. The unique dyadic structure and sample of our study allowed us the rich analytical opportunity to examine both intra- and inter-dyad perspectives. To do so, we used the constant comparative method and similar studies as mentors ([2][10]) to develop our analytic process: (1) data comparison within a single participant's interview, (2) within-group comparisons (all youth then all parents), (3) across-group comparisons (all youth with all parents), (4) comparison in pairs at the dyad level (individual youth with their parent), and finally, (5) comparison across all dyads. For analysis and group comparisons, participants were sorted into three grade bands: elementary school (ES: 3rd-5th graders), middle school (ES: 6th-8th graders), and high school (HS: 9th-12th graders).

3. Findings

Below is a summary of key relevant study findings. *In vivo* evidence for each finding can be found in Appendix A.

3.1 Youth Understandings

Youth in this study most commonly defined online privacy as protecting their personal information and identities online, and online risk as choices or events that increased the odds of their personal information and identities being revealed. In their descriptions and definitions of online privacy, youth in this study spoke agentively, positioning privacy as something over which they had some amount of choice and control. They also acknowledged that online privacy is contextual, and within different contexts a person has the right to choose for themselves how much privacy they want to have. A similar pattern was found in understandings of risk, with youth legitimizing a wide variety of risk-taking reasonings. Across grade bands, youth noted that sometimes online risk taking is the result of things like peer pressure, bad actors, or naïveté, but also that many of the online risks taken by themselves and their peers are calculated in pursuit of a specific outcome or lack of concern about consequences instead of being accidental.

3.2. Parents' Perceptions of Youth Understandings

When it came to explanations and examples of online privacy and risk, youth often knew more and had more nuanced understandings of these concepts than their parents gave them credit for having. While parents were very concerned about the consequences of their children's poor online privacy choices and risk-taking behavior, they felt that these topics and consequences were of little interest to their children. With parents of elementary and early middle school youth, this lack of interest was most likely to stem from a belief that their children did not understand the topics and were too

young and naïve to know better. Parents of older middle- and high school youth believed their children's lack of interest in online privacy and lack of caring about online risk stemmed from impulsivity and social pressure. Across grade bands, parents' beliefs about their children's interest in online privacy and risk impacted the ways they attempted to influence their children's knowledge and behavior.

3.3 Parents' Efforts to Influence Youth Behaviors

An overwhelming majority of parents in this study physically monitored their children's online activities via methods such as restricting access to devices, using monitoring/approval apps, or listening in/watching their children's device use. Across the 40 dyads, the amount and intensity of this hands-on monitoring was higher for younger youth than older youth. Alongside monitoring, parents in the study also reported having conversations with their children about online privacy and risk, and these reported conversations held interesting trends by age: the parents of younger children reported either mitigating or delaying their conversations based on their child's perceived developmental or technological knowledge level. Conversely, parents of high school aged children reported having fewer conversations about online privacy and risk with their children because they felt that their children were old enough or experienced enough with technology to already know. Finally, all but one of the parents in the study who self-reported knowing "little" about online privacy and risk noted that they do not talk to their children about these topics because they feel unprepared or do not know how to do so.

4. Illuminated Challenges

In this study, we found that youth and their parents had different ideas about what and how much youth know about online privacy and risk. Parents were more likely to view youth knowledge as low, and to think their children's poor privacy and risk behaviors as a byproduct of being either uninformed or impulsive internet users. However, all 40 youth in this study had ideas about online privacy and risk, and most—even as young as elementary school—could talk about the concepts in detail and with nuance. These discrepancies between youth knowledge and their parents' perceptions of that knowledge led to challenges.

4.1 Challenge 1: The Knowledge Disconnect

One result of this disconnect between youth knowledge and their parents' understanding of that knowledge was the challenge of figuring out what kind of online privacy and risk support youth needed. Many parents described monitoring and restricting devices as a primary method of influencing privacy knowledge and behavior because they believed their youth were not interested in or ready for conversations about these topics. In these cases, parents were attempting to influence their children's knowledge and behavior by

preventing mistakes on behalf of their children. However, youth whose parents reported device monitoring as their sole method of influence demonstrated fewer complex understandings of online privacy and risk, whereas youth in dyads that reported having more frequent and more detailed conversations about online privacy and risk demonstrated more complex understandings of the terms. This suggests that device monitoring, alone, is not the answer to influencing youth knowledge, and that conversations are an important part of the learning equation. Having conversations, however, came with its own challenge.

4.2 Challenge 2: What and When Do Youth Need to Know

As a group, the 40 parents in this study struggled to figure out *when* the right time was to discuss online privacy and risk topics with their kids, and *how*, if at all, they might scaffold these conversations in developmentally appropriate ways as their children aged. This finding was consistent both within and across dyads. Parents of younger youth tended to see these conversations as a “when they’re older” topic, while parents of older youth reported that their kids were already too old and technologically experienced for the conversations to be relevant or helpful. Further complicating this challenge of figuring out *when*, *about what*, and *how* to have these conversations, several parents also noted a distinct lack of support from technology providers to help them work with their children, and others did not feel like their own knowledge was strong enough to know how to best teach their child. The result of these challenges was an overall unsureness about when the developmental “sweet spot” for online privacy and risk conversations is for youth, and what the conversations should look like when they do happen.

On the youth side, a vast majority of both youth and parents in this study held interpersonal understandings of online privacy and risk and were therefore primarily concerned with online safety and privacy from that perspective. Only a handful of parents and one (high school) youth talked about corporate-level online privacy and risk or the implications of data sharing/privacy concerns beyond the interpersonal level. This confirms prior studies that suggest that large swaths of online privacy and risk knowledge in terms of data sharing at the commercial and institutional levels are not part of the equation for youth as they are online ([4][9]). This knowledge gap highlights need for further discussion about what is necessary for youth to know about online privacy and risk, and how they should learn this information.

5. Next Steps

The above challenges indicate a need to know more about the ecology of youth online privacy and risk knowledge development. Specifically, they highlight a need for more dialogue and research surrounding what youth currently know; what they need to know; when, from developmental and use standpoints they need to know it; and what the best

methods to influence this knowledge are. Our study suggests that parental conversations about online privacy and risk-taking behavior have a more positive influence on youth knowledge than physical device monitoring methods, alone. Our study also welcomes further discussion of the *when*, *what*, and *how* of these conversations.

Future qualitative explorations of how parents successfully work with youth to develop privacy and risk knowledge—particularly dyadic designs that can examine both parent and youth actions, perspectives, and knowledge—could help identify the exemplary characteristics of such parent/child conversations. Further, it is important to develop more tools for families to support youth in their learning about online privacy and risk to result from this ongoing dialogue. As youth become increasingly early online users, such research and dialogue will become increasingly relevant.

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7. Appendix A

Evidence for each named or described finding

Finding	Evidence*
Youth define privacy and risk-taking as agentive (an individual can make informed decisions about privacy and risk choices)	"Well, I know it's risky, but I've been doing it for years, and I know I've learned how to avoid the pop-ups by quickly closing it and ignoring the viruses. And I also downloaded this ... it's an app that monitors my storage and basically everything. It even tracks viruses and it can eradicate them. So I consider myself (pause), I'm prepared-ish to the point where I know if something does happen, I'm backed up for it and I [know how to] fix it" (Y04, HS).
Youth define online privacy as contextual, with some contexts requiring more effort than others	"If it's like a big game, my special game that if someone hacks into I'm in trouble, I say never save [my password] and I try to remember in my head. But if it's a game and there's nothing really going to happen if they hack into it because I can always just delete the account, make a new password, everything, I'll save the password" (Y07, ES).
Youth feel that risks are often known and still taken for a reason (calculated risk)	"In the back of their mind, they know 'this is risky,' but it's probably something really important to them, so they're going to do it" (Y15, ES).
Parents believe that youth don't care about online privacy and/or risk	"I don't think she's as interested in it. I don't think she cares as much about it" (P02, MS).
Parents of older youth (HS, older MS) are more likely to believe that youth's risk-taking behaviors	"Oh, I think they want to have a lot of followers and have high numbers on their views and things like that" (P28, HS).

are impulsive or socially pressured	
Parents of younger youth (ES, early MS) are more likely to believe that youth's risk-taking behaviors are rooted in ignorance/lack of awareness	"I think they could do it, I think out of naïveté or ignorance at this point. In a year or two, or maybe three, they get more curious and they're more, not malicious but more intent on looking at that stuff. So I think that risky behavior kind of changes as they become interactive differently" (P33, MS).
Parents prioritize physical monitoring methods more than other teaching approaches	"I am that mother; 'Who am I speaking to? How old are you?' ... I had some instances where he was playing with other people and I'm like, 'Well, who are you? How old are you?' And they might've been a little bit older and some younger but the mouth was just too foul and I just took his headphones and said, 'You can't play. Just turn it off.' ... I still monitor everything, the PlayStation, that goes to my account, everything goes to my account" (P26, ES).
Parents of younger youth feel their children aren't ready for privacy and risk conversations until they are older	"I think [having few conversations] is due to age and because she only has a tablet and she just like, there's no wifi when you're outside. You can't do anything and you're typically somewhere within earshot. I can hear what you're watching or seeing. But as they get older and they get more independent, of course you need to have those conversations" (P10, ES).
Parents of older youth feel they no longer need to have conversations or monitor their children as much	"Honestly, it's not something that we've really talked about. Like at the beginning we've said obvious things like never share your location. You'll never say your full name, never say your address. We've had all those conversations, but it's been years. I honestly don't know what he knows at this point." (P11, HS).

*Participant quotes are cited with an alphanumeric pseudonym in which the P/Y stands for Parent/Youth, the number is the dyad identifier, and ES/MS/HS identifies the youth grade band (elementary school, middle school, high school)