Managing Children's Online Identities: How Parents Decide what to Disclose about their Children Online

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ABSTRACT

While extensive research has investigated the risks of children sharing their personal information online, little work has investigated the implications of parents sharing personal information about their children online. Drawing on 102 interviews with parents, we investigate how parents decide what to disclose about their children on social network sites (SNSs). We find that mothers take on the responsibility of sharing content about their children more than fathers do. Fathers are more restrictive about sharing to broad and professional audiences and are concerned about sharing content that could be perceived as sexually suggestive. Both mothers and fathers work to leverage affordances of SNSs to limit oversharing. Building on prior work, we introduce the concept of parental disclosure management, which describes how parents decide what to share about their children online. We also describe an emerging third shift of work that highlights the additional work parents take on to manage children's identities online. We conclude with theoretical and practical implications for designing SNSs to better support family life online.

Author Keywords

Parenting; Internet; social media; work; mothers; fathers.

ACM Classification Keywords

H.5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

INTRODUCTION

Parents are anxious about raising their children in a technology-saturated world [24,31]. Parents are challenged to navigate increasingly complex choices about how to monitor, understand, and limit what kinds of content their children share online and with whom they share it [50].

Despite their concerns, parents themselves post extensively about their children online, often sharing personal content about children's behavior, development, and appearance [5,30,41]. While extensive research has investigated the risks and implications of children's use of SNSs (e.g., [25]), little work has investigated the responsibilities parents take on when they decide to post content about their children online. As a first step in this agenda, we investigate how parents share the responsibility of managing their young children's online identities. This is critical for understanding and preserving children's online identity, privacy, and digital footprints, as well as for promoting healthy relationships within the family. Doing so requires reconsidering theories that focus on identity and privacy from an individual perspective [4,36], and reframing them as shared concerns. We investigate three research questions:

RQ1: Who posts content about children to social network sites and what do they post?

RQ2: How do parents negotiate what is appropriate to post?

RQ3: In what ways do the affordances of social network sites affect how and what parents decide to post?

We draw on transcripts of 102 semi-structured interviews with parents. The interviews were conducted as part of our broader research agenda and were analyzed here with a focus on how parents interact with their partners and ex-partners about SNS use. We find that parents share the responsibility of managing a young child's identity and privacy when they post content about their children online. SNSs offer some affordances that support parents in this endeavor, but can also fail them in critical ways. We build on theories of information disclosure and boundary regulation to explore parental disclosure management, or how parents manage what information is shared about their children online. We also document an emerging third shift of parental responsibilities that highlights the additional work required to manage family life online on top of parents' existing work and home responsibilities. As online and offline family life becomes increasingly intertwined, understanding how parents negotiate roles is critical for the wellbeing of families and for designing the next generation of social platforms to support family life.

RELATED WORK

Disclosure and Privacy on Social Networking Sites

Affordances

Affordances refer to the relationships between the properties of an object and the agents that determine how a person could actually use the object [14]. Norman emphasizes the difference between real affordances, which are inherent to the technology, and *perceived affordances,* which are those that are visible or discoverable to the user [33,34]. Zhao et al. present four categories of perceived affordances based on how users adapt to SNSs over time: perceived physical affordances, perceived cognitive affordances, perceived affective affordances, and perceived control affordances [54]. Physical affordances refer to metaphors such as a "Home" icon on Facebook; cognitive affordances refer to users' understanding of an artifact such as Facebook's News Feed algorithm; affective affordances refer to emotional responses such as Facebook's "Like" option; and control affordances refer to users' ability to control their environment such as by limiting Facebook profile visibility to Friends Only.

Parents have always had to consider what is appropriate to share about their children with other people. Naturally, disclosure norms vary with parental philosophies, ranging from parents who freely share intimate details about their children's development (e.g., a daughter getting her period) to parents who consider such details to be intimate and private. We investigate how the affordances of SNSs interact with these disclosure choices, where the presence of unknown or imagined audiences [23] and loss of control over content [36] surfaces numerous questions about what should be shared online by whom, and to whom.

Disclosure

The way that SNS users disclose information follows normative values and varies based on SNS. Users engage in "profile work" to manage their online self-presentation and must balance the goal of showcasing their authentic self with the desire to abide by social norms of sharing [46]. These norms are in flux, and users employ various strategies to manage the risks of disclosure. Facebook users manage self-disclosure risks by regulating their Friend networks, targeting messages, or censoring themselves [48], but these strategies place considerable burden on users. Less burdensome would be for users to only post content that would be appropriate for any Facebook Friend to see [17], but this strategy could limit users' opportunities to experience self-disclosure benefits, such as building strong ties and increasing social capital [11,48].

SNS users recognize that their disclosure decisions affect other people, and vice versa. Individual users may adopt a variety of behavioral and mental strategies intended to either avoid unwanted outcomes from disclosure decisions (preventative strategies) or respond to disclosure decisions that resulted in negative outcomes (corrective strategies)

[21]. However, SNSs lack tools that facilitate collaborative, preventative strategies for disclosure management [21]. Romantic partners, for example, have to regulate boundaries about how public they should be and how autonomous they should be [53]. Collaborative, preventive tools would allow users to take part in the decision process (and responsibility) when posting new material online. Online photo sharing in particular presents disclosure management challenges. Photos can convey significant amounts of personal information (e.g., identity, associates, location), and the rise of user tagging and automated facial recognition mean that third parties can glean even more information from photos [6]. Among Facebook users who have young children, 57% strongly dislike when other people post pictures of their children without first asking permission [43].

Privacy scholar, Sandra Petronio, has argued that when people take on the responsibility of guarding other people's private information, errors in judgment and deception arise [36]. Petronio describes this as boundary turbulence, which emerges when a person's intended privacy levels are inconsistent with how other people might treat that person's information. Within families, multiple boundaries exist. A whole family boundary encircles information that belongs to all family members, and additional boundaries bind individual family members to each other. These boundaries, as well as the rules that govern how information flows among them, are fluid and shift as the family changes and individual members mature [37].

Privacy

While identity and privacy have been explored extensively in the context of online SNSs, discussions have primarily revolved around how such sites can maintain and respect an individual's privacy preferences [26,36,49]. Studies of privacy needs of individuals who take on the responsibility of posting content about another person are less well developed. This is especially pertinent for families, where parents are entrusted with moral and legal rights to be their children's guardians, rights that also exist in the online world. Most parental and scholarly concerns to date have focused on the risks of children themselves (especially teenagers) sharing personal content on SNSs [25,50]. In this work, we explore how parents consider disclosure risks and benefits and how they imagine these decisions will affect their young children, who are often too young to decide for themselves what should be shared about them.

Parenting Roles and Responsibilities

Men and women take on a variety of new roles when they become parents. Historically, fathers worked out of the home in paid jobs while mothers stayed home to raise children and do housework. These imbalances have shifted extensively in the U.S. over the last century, and the roles that mothers and fathers carry out have begun to converge. Fathers now do more housework and childcare while more

mothers work outside of the home [20]. Mothers and fathers report similar struggles with managing work-life balance: 56% of working mothers and 50% of working fathers say they find it somewhat or very difficult to balance work and home responsibilities [20]. Despite this convergence, roles are still imbalanced, with mothers doing about twice the number of hours of housework and childcare than fathers [20]. Mothers also still perform more overall hours of paid work, housework, and childcare combined than fathers. Hoschchild's seminal book "The Second Shift" articulates the extensive labor that parents—especially women—do at home, often in addition to paid labor completed out of the home [16]. Also known as a "double burden", this unpaid labor can have deleterious health and economic effects. Managing photos is a type of domestic labor, one that mothers have historically controlled [38]. While both fathers and mothers take snapshots, mothers have often been responsible for organizing them in family photo albums [40]. Labor economists and sociologists have extensively documented gender role differences in the home (e.g., [9,16]); here we investigate how these play out online.

Parents and Internet Use
HCI research has focused on developing new technologies to help families communicate, stay connected, and manage technology-related needs in the home (e.g., [8,32,51]). A line of HCI research has focused in particular on sharing behaviors among family members, including sharing photos, calendars, user accounts and passwords [8,10]. Parents share information, stories, and photographs about their children on a variety of social platforms. Parents share actively on Facebook, as well as on sites like Instagram [30]. A workshop on HCI and motherhood discussed ways that technology can support mothers [3]. Mothers turn to online sites to interact with other adults when they have young children [40]. Mothers also use anonymous sites to talk about children and husbands in ways that they would not necessarily be comfortable sharing face-to-face or on a site like Facebook [41]. Women may be more concerned about their privacy on Facebook than men [18] which they manage by setting higher privacy restrictions, culling their list of friends, and deleting unwanted contacts [26]. The literature on fathers online is scarcer but reports similar patterns of information seeking and social support. Fathers discuss challenges of fatherhood online and look to encourage and confirm one another [12]. They also rely on humor to offer social support to one another [13]. Both mothers and fathers share photos of their babies on Facebook, though mothers report doing this slightly more frequently than fathers do [5].

Studies of pre-Internet family photography show that parents take and share photos that depict an idealized family: happy, healthy, and having fun [35]. However, tensions may arise about how and when photos should be shared among friends and family when photos are shared online. For example, parents and teenagers may have different beliefs about what is appropriate to share [50], and these beliefs vary based on the audience, norms, and affordances of a site. Photo-sharing practices online have been studied extensively (e.g., [1,29,40]). We explore how families negotiate boundaries of what is appropriate to share online, especially in the context of young children.

METHODS
We conducted 102 interviews with parents between April 2013 and May 2014. The interviews were conducted as part of our team's broader research agenda focused on understanding the lives of parents online. Interviews were conducted with a variety of diverse demographics as part of three different research projects. In each of the three project interview protocols, we asked participants about what kinds of child-related content they shared on SNSs and how they and their partners or ex-partners negotiated what was appropriate to share. We recruited participants via online groups, support groups, parenting lists, craigslist, snowball sampling, and our Facebook and Twitter networks. We also distributed fliers in daycare centers, doctors' offices, and churches in a Midwestern city.

Because parenting studies have often oversampled mothers (e.g., [2,28,39,50]), we focused on recruiting fathers when possible in our research. As a result, overall participant demographics included 64 fathers and 38 mothers. Most identified as currently married, but 11 identified as separated or divorced, 2 as single parents, and 1 as widowed. All but two of the fathers in our sample identified as working fathers (n=62); the remaining two identified as stay-at-home fathers. Among the mothers, 15 out of 38 identified as working mothers and 17 identified as stay-at-home mothers. They had a total of 212 children, with a median of 2 children each. Ages ranged from newborn to over 18 and the median age was 7 (10 children's ages were missing from the interview data). Interviews were conducted in-person (n=25), over the telephone (n=34) or over Skype (n=43) by members of the research team. The length of interviews ranged from 20 minutes (due to technical difficulties) to 110 minutes (also due to technical difficulties) and the median length was 51 minutes.

We coded the 102 transcripts using an inductive open coding approach [45] that focused on negotiations with partners or ex-partners related to sharing about children online. Two of the authors conducted a first pass of the interviews, identifying themes relevant to our research questions and conducted peer debriefings and consistency checks [22]. One author conducted a second pass and exhaustively coded all transcripts based on themes that emerged from the first pass. Here, we report overarching themes that emerged across participants' stories. In addition to our inductive analysis, we also drew on a summative content analyses approach [19,52] to quantify how often mothers and fathers each reported sharing about their children relative to their partners across the 102 transcripts.

Summative content analyses involve counting and comparing content (or keywords) [19]. We used the software NVivo to assess how frequently themes appeared in the transcripts. Results were then interpreted in the context of the research goals, as is done with inductive approaches [19,52]. Our report of gender differences in the results relies on the summative analysis results and interpretation. Throughout the paper, we refer to father participants as "Fa#" and mother participants as "Mo#".

Limitations
All participants identified as currently having or previously having a partner of the opposite gender. Though we did not recruit heterosexual parents in any of the studies, our recruitment either did not reach or did not appeal to same-sex partners with children, a significant gap that needs to be addressed in future work. We did not ask participants their household income, but no participants reported facing severe financial strain. We oversampled families in which the parents were married: 86% of our participants were married whereas U.S. Census data [47] reports that 71% of families live in a married household. There are also limitations in synthesizing data from multiple studies. While many of our questions were similar across each study, we used three different interview protocols. We considered the context of interview questions to the extent possible in our coding and interpretation of the data.

RESULTS
Results are organized around the three research questions: what mothers and fathers post about children online, how mothers and fathers negotiate sharing policies, and how the perceived affordances of SNSs help them to do this work.

Gender Roles and Managing Disclosure
Both mothers and fathers in our sample said that mothers did the majority of disclosure management work, which included deciding what to share, negotiating sharing policies with partners, and posting content online. The summative content analysis revealed 66 instances where participants said the mother managed posting content about children to SNSs more than the father did, but only 14 instances where participants reported that the father posted more than the mother.

Both mothers and fathers shared child-related content online, especially photos; however, many reported that mothers share more and more often than fathers. For example, Fa03 said that while he posted photos, his wife often posted them daily:

> My wife does a lot more of that…she posts a lot more of what the kids are dressed up like. I do it occasionally, but she'll do it like a daily posting, 'cause we have three girls. So if the youngest is smiling, she'll take a picture of that….so my middle child started scout girls as a Daisy and she took a picture of her in her outfit and posted it. Fa03

Mothers of younger children posted pictures that were "cute" or "captured a really sweet moment." They posted pictures of their children eating different types of food, wearing various outfits, or meeting family and friends. They also posted milestone pictures that highlighted their child's development. A number of fathers told us they posted about their children's activities, particularly those related to sports. Fa29 said:

> If it's my daughter accomplishing something like a [soccer] goal, or in ballet of her performing, or in voice, doing a recital in front of the town in our local little fair… I'll look for things that kinda capture the audience size, or capture the competition. Fa29

Fa12 stayed at home with the first of his three children, and he remained involved in their activities after returning to work. He posted photos of them at sporting activities to Facebook. Fa23 posted photos of his son's little league baseball team and of baseball games he attended with his son. Fa26 posted when his son overcame obstacles in sports. Fa24, a single father, said that he shared many "Hey, I'm so proud of you" moments on Facebook. But he also shared photos of him and his daughter, saying "I think everybody likes that daddy-daughter thing."

Managing Suggestive Content
Fathers described concerns about sharing images of their children—especially their daughters—in ways that could be interpreted as sexually suggestive. Some fathers had actually experienced this: for example, Fa29 had shared a photo of his daughter on Facebook perched on one foot and a Facebook Friend made a sexually suggestive comment about the pose depicting an exotic dancer. Fa29 told us:

> I actually nearly de-friended the guy over it… I basically had to tell him that was awful... It was something that made me feel uncomfortable and something that [even] if I remove it, other people have seen it. I didn't want to make it an issue… I said, "My shotgun would say otherwise", I think that's exactly how I said it. I try to use humor to defuse and to balance, because it's both positive and it's like using a smart-ass response to keep somebody in place. Fa29

Fa35 reported that he would share photos of his 10-year-old daughter as long as they did not exceed a specific "threshold." When asked to define threshold, he replied "something that I felt was over-sexualized for a 10-year-old... Shorts were too short, and making the duck-lip expression kind of thing, I wouldn't post that." Mo05 reported her husband's concern about suggestive content:

> I learned a lesson. [My son] was lying in our bathroom naked one night reading a book. And I took a picture of it and I mailed it to, I sent it to [husband] and he wrote me back and was like,

"Never, ever, ever, send me photos of a naked child, even if it's our own, to my work phone." Mo05

Evaluating Audience Expectations

Fathers reported that they considered their Facebook audiences to be a broad, heterogeneous group including professional networks who were not interested in seeing pictures of children. Many fathers said they did not want to share too many—or sometimes any—photos of their children to this broad audience. One father said:

> I have a group of military friends and I have a group of [local] friends and most of them have… absolutely different viewpoints of the world… and I'm caught in the middle. So I don't post stuff so as not to upset either of the crowds. Fa03

Fa08 noted that his Facebook audience contained professional colleagues whereas his wife's was mostly friends and family. As a result, they mostly posted pictures to her network:

> The people I am friends with on Facebook [are] in an extremely heterogeneous group: from colleagues to childhood friends and people from college; most of them would not give a damn about my daughter. My wife's Facebook group is much smaller; she has close friends and family… She does post photos of [daughter] on Facebook and she usually gets a lot of responses. Fa08

In contrast, mothers described their Facebook audiences as a mix of close family and friends as well as a variety of weaker ties (e.g., high school friends) and acquaintances. Though many mothers also had professional connections in their Facebook audience, they did not report this as a constraining factor.

Negotiating what is Appropriate to Post

Negotiating Posting Preferences with Partners

Although mothers manage more of the work in posting content, both mothers and fathers reported that they discussed—and sometimes negotiated—with one another about what content to share. When parents had different perspectives, they had to consider their partners' desires when deciding what to share about their children or about one another:

> My husband is becoming less of a Facebook user. Just professionally I think he doesn't want as much out there… Um, so he will say "Don't tag me in that. [So when I share a picture, I ask myself] is my husband going to be upset? Mo04

This was especially the case when fathers disapproved of sharing on SNSs. Mothers developed self-censorship mechanisms to try to prevent problems:

> My husband... doesn't like social network kinds of stuff… I just don't post as much. I mean, I edit myself. Like I told you, like, I'll start to write

something and say, "Eh, like, does the world really need to know that? Probably not." Mo06

Though our sample of divorced or single parents was relatively small, we observed some greater tensions when ex-partners needed to negotiate with one another. Fa31's ex-wife did not want Fa31 to share any content about their child online. Though they did not argue about it, they had different opinions about whether it was acceptable to post photos of their child online. Importantly, because his ex-wife did not post photos of their son, Fa31 worried that he would never see photos except when she showed them to him in person. Another participant who had separated from his child's mother relied on his father's Facebook friendship with his ex-partner to see pictures of their child because he was no longer Facebook Friends with her.

Managing Disclosure by Extended Family and Others

In addition to negotiating with their husbands, mothers took an active role in negotiating SNS sharing policies with extended family members. This negotiation took one of two forms: formal rules, which were typically sent to close family members to establish expectations about appropriate photo-sharing behaviors, and informal rules, which involved handling contingencies arising from family members sharing photos of children. Parents who used formal rules often communicated this information to family members and friends during later stages of their pregnancy or when they announced the birth of the child. For example, Fa16 and his wife had decided that others should not be allowed to share photos of their child online, and Fa16's wife sent an email to the family to that effect:

> Before [our son] was born, we actually talked in great detail about what we wanted to share. So we came to an agreement, and I think it's held up... It was mostly, we were thinking about photos. And the basic deal with it, that she and I could basically choose what photos to share. But third parties, like [grand]parents, were not allowed to share photos without asking us. Fa16

Some mothers and fathers wanted to control what people they did not know could see about their child. They took steps to contain how much information was shared about their child by asking family members—particularly grandparents—to limit the kinds of photos they shared or limit who they shared them with. In cases where family members might not know how to take certain steps (e.g., using privacy settings on Facebook), participants settled by asking those people to be cautious about what kinds of photos they shared. One mother explained:

> I have my mother who shares photos of [granddaughter] once in a while and, um, my mother-in-law will share once in a while. I've kind of asked them to be careful with that only because I can't really control who's seeing it if they share it on their Facebooks. Mo15

Though many parents did not want their children tagged online so that Facebook or Google would not know the identity of their child, a small number of parents *wanted* their children to be tagged to ensure that they knew what was shared about their child. Mo09 created a Facebook account for her child and permitted family members to post photos of her son only if they tagged his Facebook account:

> Like people other than my husband, um, would post photos of [my son]. Even his grandparents would… In the beginning, they asked if it was okay. And I just explained to them my only concerns and just to keep those concerns in mind, and they can post. As long as they tag [my son]. Because when they tag [my son], I can see it. I can check it. Mo09

However, sharing rules became more complicated if spouses had different opinions, and family members violated one spouse's preferences but not the other's.

> [My husband's] side of the family is much more active in Facebook than my side of the family is even though [my husband] hates it and I am okay with it. So it's usually his aunt and his sister who are bugging me for photos on Facebook... when other people, like my sister or sister-in-law post photos of [my daughter] and tag me in it to Facebook, I don't, like, untag us.... But, I mean, I think everybody knows that my husband hates Facebook. Mo06

Mo14 found that controlling other people's sharing was more difficult than expected. Mo14's sister-in-law posted a picture of Mo14's daughter's face to Facebook against her wishes. Mo14 decided not to ask her to take it down to avoid hurt feelings and family conflict. Mo08's husband's aunt took a picture of Mo08's son in the shower and emailed it to Mo08, saying she wanted to post the photo online. In response, Mo08 said she "flipped out on my husband and said, tell her not to, even, you know, no." Mo08 believed pictures that showed nudity should not be posted online, and should only be shared with family.

Finally, some parents decided it was too difficult to control what content about their children appeared online, and they stopped trying. For example, while Mo05 did not have a problem with family members sharing photos of her son, she discovered that her son's babysitter had made a photo of her son her public cover photo on Facebook. Mo05 and her husband did not want the babysitter to know they had looked at her Facebook page, and they wanted to maintain a positive relationship with the babysitter. They decided not to pursue the matter further rather than "making it awkward and Friending her or talking to her about it."

Perceived Affordances of Social Network Sites
Most participants in our dataset had Facebook accounts and had shared at least some photos of their children on Facebook. However, parents raised concerns about oversharing and maintaining control of the content that they shared. Concerns about oversharing reflected parents'

beliefs about what their audience would want to see, while concerns about control reflected their desire to keep certain types of content more private than others. Parents took advantage of a range of SNSs and online services that they perceived to have particular affordances for sharing and maintaining control. Specifically, participants reported using Dropbox, Google+, LiveJournal, Flickr, Shutterfly, Snapfish, Instagram, and iCloud when they wanted to use a site to share to smaller or more private audiences than they had on Facebook.

Managing Oversharing
Participants were concerned about sharing too many photos of their children to their Facebook audience. Parents were sensitive to overburdening their networks with photos and believed that the number of photos their Facebook Friends would want to see was probably fewer than family members, such as grandparents, would want to see. To overcome this concern, parents turned to other online platforms. Blogs enabled parents to share more about their children without "overloading" or "blowing up" their Facebook page. For example, Fa16 indicated that while he or his wife might share one photo on Facebook, they would share the rest of the "action shots" on their blog, which the grandparents followed. He said his wife's preferences contributed to this approach.

> She is significantly more concerned than I am about oversharing and overposting. She shared the concern [that] people on Facebook may not want to see as many baby photos as people viewing the blog. Fa16

Most parents noted that if a photo was really good, they would share it on Facebook:

> Our friends and family don't have to see everything that we do there. Some of the best photos, we'll put up on Facebook so our friends and our family can see them. [The rest of the photos], they're just on our computer or on a hard drive. Oh, Shutterfly is another big thing. My wife puts a lot of our photos in Shutterfly. Fa13

Differentiating SNSs Based on Audience
A few parents were opposed to sharing photos of their children on Facebook regardless of the content of the photo or perceived audience on the site. For example, Fa09 said:

> Facebook is not private. So we're not going to make anything public about our son. Also, I'm pretty active on Twitter and I would never tweet a picture of my son. We do share photos with family via iOS photo which from my perception is more private, but Facebook is pretty much public. So I don't want... My son should decide that for himself. Fa09

Other parents expressed concerns that broad audiences should not see certain types of content, particularly if it could be interpreted as suggestive. Fa22 did not want his or his wife's Facebook Friends to see photos of his daughter at

gymnastics where she wore tights. While he had business friends and "actual, real friends" (as he called them) on Facebook, his wife had a large network of people she knew in grade school whom she "hadn't talked to in 20 years." He felt "leery" about her sharing online to this broad audience.

While other parents echoed a similar view of posts on Facebook being "public", most still posted some photos and status updates about their children. Fa20 shared photos that he did not deem public in a private platform:

> With Facebook, I am very aware that anything I put on it is very public, fully public. I wouldn't put something on Facebook unless I consider it fully public. With LiveJournal, I have some degree of actual protection. Of course, with my personal Dropbox, I have as much protection as I want… I do not plan to keep up with Facebook legal and interface updates. Fa20

Fa37 noted that while he did a lot of blogging, his wife did most of the Facebook postings; they both understood that the blog was more public and should contain fewer pictures. Fa23, a single father, also shared more pictures of his daughter on Facebook than on his blog. Some mothers and fathers said they did not share the locations or names of their children online, and many more expressed caution about how and where they shared this kind of information.

When participants wanted to share more photos (e.g., an entire set of vacation photos) or more private photos (e.g., vacation photos of family members in swimsuits at the beach), they often shared these on different platforms with a narrower audience. Fa10, for example, had posted more than 200 photos of his daughter to Flickr. He kept that account private and gave grandparents the login credentials. He said that he would not share a photo of his six-year-old daughter in a swimsuit on Facebook, though he would share it on Flickr. He also would not share photos on Facebook of his children fighting or if their bedroom if it was "super messy."

Eighteen parents indicated they used Instagram to share photos. While some parents said they used Instagram to share photos in much the same way as Facebook, others noted that they used their Instagram to share photos with specific audiences. Specifically, some said they shared "cute" and the "best" photos on Facebook whereas they might share funny photos on Instagram:

> There was a cute picture that I took with my phone of my daughter playing in the snow, very innocently. So I put that on Facebook. There's a picture of her with a pretty evil look on her face throwing a snowball, that one I put on Instagram... I use Facebook mostly for close friends and family. I use Instagram for kind of a different set of friends, people who I share interests with or [who] have a similar sense of humor. Fa10

Fa11 told us he used Instagram because he was "sick of" all of the advertisements on Facebook and he had more control on Instagram where he could be "restrictive" about what he shared about his children. Ma13 created a separate Instagram account for her daughter and preferred to share photos of her daughter's activities to a network of close family and friends with rather than her large Facebook network, where she felt certain pictures like beach photos would not be culturally appropriate. Fa12 defined private pictures as those that depicted a trip to a beach with his family or features of their home, and similarly chose to share those only in a private Flickr gallery.

Fa23, who shared child-related content on his smaller Google+ network rather than Facebook, also considered how Google+ integrated with other services that extended family used.

> Our Google+ networks are a small fraction of what our Facebook network is… We have explicitly told [grandparents], "Hey, if you want to have access to photos and videos of your granddaughter quickly, why don't you just start a Google+ account since you guys have Gmail addresses anyway and it'll be integrated?" We perceive Google+ as more secure and we have more control over and, we try to be very discreet about who we share it with. Fa23

DISCUSSION

The Work to Manage Children's Identities Online
Parents face a significant and time-intensive responsibility of deciding how to balance their desire to post content about their children with the implications for their children's future digital identities. The current generation of parents had a clean slate when they first went online—the next generation will inherit a persistent online identity created for them by their parents, likely started before they are even born. Parents must consider their children's age and social, emotional, and physical development—a concern especially expressed by fathers of young daughters.

Our results suggest that many parents manage the work of sharing information about their children online by assigning de facto roles to one parent. Participants were always able to articulate who did the sharing and what kinds of sharing they did, though the roles tended to emerge organically. In the same way that one parent often does the cooking or the dishes, our results suggest that one parent takes on the primary responsibility of sharing about children online. Women often held this responsibility, perhaps because they are more active SNS users [5], or perhaps because their roles as primary caregiver are extended into these online spaces. Regardless, tensions emerged when one parent posted a picture that violated the other parent's personal preferences for what is appropriate to share. Additional stressors arose if extended family members violated parents' sharing preferences.

When existing approaches break down, parents must engage in articulation work to develop new approaches for managing disclosure management online. This work includes many of the strategies described Lampenin et al. [21]. Specifically, parents employed preventative strategies such as explicitly announcing to extended family their preferences for sharing child-related content online, using alternative software services, or by creating separate profiles for their child. Corrective strategies included interpreting a disclosure as non-serious or asking others to delete content on their personal profiles. Parents, particularly fathers, also adopted the lowest common denominator approach [17] as opposed to mothers who considered their networks to be denser and more pruned.

We refer to this emerging work as the "third shift", a concept building off Hoschchild's "second shift" that highlights the unacknowledged time and work that parents expend, typically in unpaid and unacknowledged labor [16]. Similar to the first and second shifts—paid labor and homemaking, respectively—the third shift expands itself into parents' already busy days. Much like the labor involved in managing and organizing family photos [37,39], mothers took the lead in doing the work of posting content online, as well as managing disclosure about their children, though fathers also actively did these behaviors. For both parents, the third shift of parenting online spans across work and home life, facilitated by constant access provided by mobile devices and SNSs. Mazmanian and Erickson describe the "constant availability" that is increasingly expected of workers and which coincidences with the technologies that enable it [27]. Together, this line of research portrays a broader pattern of expectations placed on Internet users that requires them to be available, active, and vigilant about their online identities.

Parents, and SNS users more generally, are presented with a new kind of demand on their time, one that requires participation online to be able to receive a number of benefits in the form of social and emotional support online [12,15,30,41]. Self-disclosure, in particular, is related to receiving these benefits. However, these benefits correspond with self-disclosure in the form of revealing information about oneself to others [48]; here, self-disclosure is inextricably tied to sharing about the child's identity as well. In the case of children, parents must tradeoff the benefits of receiving social support with the potential risks of revealing too much or inappropriate information about their children. For example, disclosing stigmatized behaviors like mental health issues can compromise a child's identity and privacy and can lead to judgment of the parents themselves [2]. These tradeoffs exist for a number of interpersonal relationships online; couples, friends, and coworkers all have to engage in disclosure and identity management behaviors [21]. Unfortunately, users lack clear norms for posting content [46] about other people, and thus have to perform the work of deciding—and often negotiating with one or more

others—what is appropriate to share. In the case of our work, as children grow up, this negotiation evolves to include their own privacy and identity preferences (an important area for future work). New theoretical frameworks are needed to explain what happens when parents' self-disclosure desires conflict with the disclosure interests—or best interests—of the child. More generally, SNS users are actively posting content online, and in doing so, often sharing identities with other people. This requires new theoretical frameworks to understand how people manage this third shift of work while spending time online.

Design Opportunities for Managing Children's Identities
Our results show a need for design approaches that facilitate parental disclosure management. Currently on Facebook, individuals (usually) "own" just one account—their own. This is a technical features that offers affordances [54] for users to control who can see what content. However, there are few affordances for shared accounts among multiple owners. New technologies will be needed to help children perform their own disclosure management. Parents currently help their children create Facebook accounts [7] and set rules about technology use [50]. These practices are often driven by parents' concerns and interest in teaching their children how to become thoughtful and responsibility technology users. Yet, parents do not engage in practices to transfer the content they themselves have created to their children. Our work suggests three areas of design opportunities for supporting this kind of disclosure management:

- Joint accounts: SNSs could create joint sharing features that allow one or more users to create an account and share responsibility of it. Such an account would allow parents to jointly control privacy settings and manage content.

- Silent tagging: Parents could engage in "silent tagging" practices so that profiles and content are stored for later use, if a child decides she wants her identity to be attached to this content.

- Retroactive identity management: Children could be given the opportunity to more easily and powerfully alter their online presence, after it has been established by their parents.

Policy and Education Decisions
A risk related to the proposed design ideas is that Facebook (or other SNSs) would own more content about young children. Furthermore, current Internet policies such as COPPA are generally thought to be poorly conceived and ineffective (see [7]). New government regulation might be needed to give parents more rights and agency over their children's online identities at a younger age, but to also ensure children's own rights as they come of age to take over ownership of their online identities. Indeed, recent policy developments show increasing public appetite for the

ability to manage digital footprints. The California legislature passed a law in 2013 that requires websites to allow minors to delete content they have posted [42] and the "right to be forgotten" in Europe allows people to request that search engines remove links to particular content from search results [44]. In addition to policy changes, more education and support is needed for parents. A significant portion of parenting now revolves around family technology use [7,31,50]. Policy makers, researchers, and media focus on children's behavior and risks, but focus less on how to help their parents. Organizations like Common Sense Media are working to educate parents; we argue that greater scholarly attention should be directed to support these efforts.

CONCLUSION

Parents share personal information about their children online and must decide what is appropriate to share and negotiate these decisions with their partner. We refer to this work as parental disclosure management. Mothers share content online and take on the responsibility of managing sharing more than fathers do. Fathers are more restrictive about sharing to their broad networks and are concerned about sharing content that could be perceived as sexual. Both mothers and fathers work to leverage perceived affordances of SNSs to minimize oversharing on Facebook and to maintain appropriate privacy levels when they do share. Results surface a third shift of online work that parents take on to manage their family life. Designing new kinds of social media affordances will be critical to help parents manage family identities online. Future work should also investigate how children feel about their online identity being created and curated for them.

ACKNOWLEDGEMENTS

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