What Are You Doing With Your Phone?

How Social Class Frames Parent-Teen Tensions around Teens' Smartphone Use

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ABSTRACT

Social class contexts shape parents' guiding principles around teens' smartphone use. These contexts can affect how parents coach and censor their teens' smartphone use and can create tensions in the home. Through 174 interviews (87 parent-teen dyads), we find that upper-middle-class families generally adopt an orientation toward *scaffolded achievements* and working-class families tend to embrace an orientation toward *empowered self-sufficiency*. We further find that these class-based orientations contribute to parent-teen tensions. For upper-middle-class families, tensions arise when parents insist that teens should use smartphones to get help with academic and enrichment activities and teens disagree about whether their phone-related activities align with this goal. In contrast, we find that conflict can occur in working-class families when teens use their smartphones to get assistance and parents interpret such activity as teens being lazy or not self-sufficient. These findings highlight the role of social class contexts in shaping families' orientations toward teens' smartphone use and phone-related tensions.

CCS CONCEPTS

• **Human-centered computing** → Smartphones; • **Social and professional topics** → Cultural characteristics; Adolescents.

KEYWORDS

parents, teens, smartphones, social class, tensions

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1 INTRODUCTION

Parent-teen conflicts over teens' use of smartphones are commonplace in the lived experiences of many families. Current human-computer interaction (HCI) scholarship reveals how these struggles can stem from misalignments in personal values, expectations, and generational differences in families [6, 16]. In particular, literature has focused on how smartphone use shapes parent-teen dynamics (e.g., by facilitating or disrupting conversations) [6, 16]. While

such analyses are important, there has been less attention given to how families' social class contexts might shape how they make sense of teens' smartphone use in ways that lead to phone-related parent-teen tensions. Research suggests that parents' social class can affect the degree to which they accept and welcome media use and "screen time" in their children's lives [2, 11, 30, 37]. However, the link between social class and phone-related tensions in the home has not yet been fully explored.

We are not the first to suggest that social class can influence what parents value and the traits they try to instill in their children. Sociologists have shown that social class plays a key role in shaping parents' visions of what it takes for their children and teens to succeed in life, which include markers of extracurricular and academic success [28, 29]. These parental views then affect how parents guide their teens toward these goals [28, 29]. Specifically, sociologists such as Kusserow [28] and Lareau [29] find that upper-middle-class parents often engage in intensive parenting practices, where they actively facilitate and intervene in their teens' extracurricular and academic achievements to give their children extra support toward achieving success in these arenas. By contrast, working-class parents largely adopt a natural growth approach, encouraging teens to be independent in accomplishing their tasks and solving their problems to teach them self-sufficiency and a strong work ethic [28, 29]. Smartphones are powerful tools that link teens to new forms of communication and coordination as well as vast amounts of entertainment and information. As such, these tools may figure into parental ideas around how teens can best set themselves up for future success. In sum, sociological literature suggests that social class contexts may be an important factor in how parents orient to teens' smartphone use concerning teens' extracurricular and academic success, which also contributes to phone-related parent-teen tensions.

This paper draws on interviews designed to understand how parent-teen dyads across social class lines made sense of teens' smartphone use. While social class differences were not our initial object of analysis, our inductive analysis of the data revealed the importance of this factor in shaping how parents view teens' smartphone use. In particular, parents expressed strikingly different perspectives about how smartphone use figured into teens' extracurricular and academic success. To understand these differences, this paper focuses on the following questions: First, how does parents' social class affect their views of teens' smartphone use concerning their extracurricular and academic success? Second, do class-related views around teens' use of smartphones affect parent-teen tensions around teens' smartphone use? If so, in what ways?

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Our findings emerged from interviews we conducted with 174 upper-middle and working-class parents and teens (i.e., 87 parent-teen dyads interviewed separately) in Southern California. In line with prior HCI studies [2, 29, 37], this paper defines “upper-middle-class” families as families who earn more than 60% of their county’s median household income. These families also live in areas where adults are typically professionals (e.g., lawyers and engineers) with at least a bachelor’s degree. By contrast, “working-class” families earn less than 40% of the county’s median household income. Most adults in their neighborhoods are also lower-status manual or service workers (e.g., food preparation, administrative support, and personal care employees) who have less than a bachelor’s degree.

These data suggest that all parents are invested in their teens’ short-term academic and extracurricular achievements because they consider such achievements as integral to their teens’ long-term success in college and work settings. However, parents from different social classes hold divergent ideas about the smartphone’s role in teens’ academic and extracurricular endeavors. Specifically, upper-middle-class parents often foster what we call an orientation toward *scaffolded achievements*. Parents with this orientation encourage teens to use their smartphones to ask their social networks readily for academic and extracurricular assistance. On the other hand, many working-class parents describe embracing what we call an orientation toward *empowered self-sufficiency*. Adopting this orientation means instructing teens to use their smartphones to pursue their passions and work through homework problems independently.

In addition to shaping families’ attitudes and assumptions about what it takes to succeed in academic and extracurricular activities, social class contexts also contribute to parent-teen tensions around teens’ smartphone use. We find that upper-middle-class families share a general expectation that teens should not only engage in numerous activities but also pursue assistance to thrive in these activities. Underlying this orientation is an assumption that extracurricular and academic achievements, coupled with the cultural scripts around asking for help, will lead to long-term success by enabling teens to secure spots in selective colleges and workplaces. However, the role of teens’ smartphones in this achievement orientation is not always clear cut. Tensions can arise when parents and teens disagree on whether teens’ smartphone use acts in service of either getting productive help or engaging in leisurely conversation.

Among working-class families, some teens—specifically those who attend an upper-middle-class school and want to adhere to the school’s dominant help-seeking norms—report disagreeing with their parents’ suggestions to avoid using their smartphones to immediately turn to social connections for help with homework problems. Parent-teen tensions can thus arise when working-class parents who want their teens to solve their own problems independently equate teens’ phone-related support-seeking behavior with a lack of self-sufficiency. That said, parents describe wanting teens to excel in school and commonly defer to teachers’ judgments in encouraging strategies that promote student success. Hence, tensions can be diffused if parents come to understand that their teens’ phone-related help-seeking strategies stem from teachers’ expectations.

Through the use of social class as an analytical lens, this paper sheds light on the intricate relationships between individuals’ conflicts around smartphone use and their structural, socioeconomic realities. We contribute an empirical understanding of (a) the class-based differences in families’ orientations toward teens’ smartphone use and (b) how families’ social class contexts can contribute to phone-related parent-teen tensions. With respect to research on parent-teen tensions around teens’ smartphone use, these insights expand the current scholarship’s prevailing storyline of how such tensions generally arise. Our findings suggest that while parents across the board want success for their teens and understand the role of teens’ smartphones in achieving short-term goals, social class shapes assumptions about how teens can achieve success (e.g., by enacting help-seeking strategies vs. being self-sufficient) and thus how teens should use their smartphones. Further, this work adds nuance to research on cultural transmission by showing that teens also play an active role in shaping their parents’ views about what constitutes productive smartphone use. We conclude by calling for designers to consider how they can create technologies that consider the social class differences in phone-related attitudes both across and within families.

2 RELATED WORK

2.1 Sources of Phone-Related Parent-Teen Tensions

HCI scholars have long examined the sources of parent-teen tensions when parents and teens navigate personal technology use in the home [6, 14, 16, 27, 36]. This body of literature generally finds that individual and generational differences in parents’ and teens’ views of technology use drive these tensions.

Prior studies show that parent-teen tensions can stem from parents’ and teens’ conflicting expectations of parental control and teen autonomy around phone-related activities [14, 19, 31, 32, 36]. For example, both parents and teens agree about the importance of giving teens a degree of privacy and independence in managing their own smartphone use [12, 14, 17, 38]. Both parents and teens also concur that parents play a critical role in helping teens to learn how to use their smartphones in appropriate manners [23]. However, past research shows that parents, and especially those who embrace an authoritarian parenting style [36], often want teens to disclose what they are doing on their smartphone more than teens expect [14, 31, 32]. Parent-teen tensions can then arise when teens view parental demands for more transparency in their smartphone use as an invasion of their expected degree of privacy and autonomy [19].

In addition, previous studies highlight how parent-teen tensions can emerge when expectations about smartphone use do not reflect actual practices—in either direction [6, 16, 23, 27]. Hiniker and colleagues find that teens get frustrated when parents expect the family to unplug devices at the dinner table even though parents themselves do not abide by their own rules [23]. Davis and associates find that parent-teen conflicts can also occur when both parties defend their own phone-related behaviors with legitimizing excuses (e.g., needing to complete work or to wind down) and blame the other’s smartphone use for disrupting their attempts to connect [16]. Tensions also emerge from the opacity of smartphone use.

According to Blackwell et al. [6] and Kim and Davis [27], parents' limited visibility into what teens are doing on their smartphones can contribute to parents' misconceptions that teens are engaging in unproductive or inappropriate smartphone use.

While these findings are compelling, parent-teen tensions around technology use may also emerge from socioeconomic structural conditions. Sociologists and HCI scholars suggest that social class contexts affect how parents orient to technology in the home and may contribute to tensions between parents and teens around smartphones [11, 30].

2.2 Social Class Differences In Parenting Practices

Numerous sociologists in the U.S. have examined the role of families' social class contexts in shaping parenting practices [20, 28, 29]. Scholars find that upper-middle-class contexts can be characterized by high incomes, stable jobs, and safe neighborhoods [13, 34]. As such, upper-middle-class parents often have the freedom and resources to nurture their children to express themselves and seek assistance when needed [20, 28, 29]. For example, Lareau's landmark ethnographic study shows that class-privileged parents often engage in "concerted cultivation" [29]. These parents actively facilitate the development of their children's skills and interests through various parenting endeavors, such as enrolling their children in a wide variety of out-of-school activities [29]. Through an ethnographic study of child-rearing in three communities, Kusserow finds that many upper-middle-class parents describe their children as "delicate flowers" that require careful cultivation to "bloom" [28]. This metaphor illustrates how upper-middle-class parents often view child development as an intentional, scaffolded process.

By contrast, working-class contexts can be characterized by lower incomes, higher job insecurity, and riskier neighborhoods than upper-middle-class contexts [13, 34]. In response to these contexts, scholars show that working-class parents tend to focus on teaching their children to stand up for themselves and be resourceful [20, 28, 29]. For example, Lareau finds that most working-class parents adopt an "accomplishment of natural growth" approach, which entails encouraging children to become independent in their approach to life's challenges [29]. These parents often give their children the freedom to structure their own time and grant them the responsibility to solve their own problems [29]. Kusserow reports that working-class parents often refer to their children as "sturdy kids" and "tough people" [28]. These parents largely view child development as a process that fortifies their children's resilience and self-sufficiency.

Of course, other sociocultural factors, such as race and immigrant status, also shape parents' styles and practices. For example, previous studies suggest that compared to their non-immigrant counterparts, immigrant parents who are not fluent in English or not familiar with the U.S. extracurricular and academic system are less likely to directly intervene in their teens' extracurricular and academic success [4, 9]. These parents often focus on providing moral and emotional support to their teens, but they largely take a hands-off approach and allow their teens to be independent in charting their own extracurricular and academic paths [4, 9]. In addition, prior research finds that racially marginalized parents,

especially Black parents, often prepare their teens to navigate a racist society by teaching them to advocate for themselves when they encounter racial discrimination [1, 15].

Current sociological literature provides a robust understanding of how parenting styles and practices may vary along social class lines—a useful starting point for HCI-related investigations of technology use in families.

2.3 Social Class Differences In Parents' And Teens' Views Of Teens' Smartphone Use

A burgeoning stream of HCI literature in the U.S. context explores how social class contexts influence the ways in which parents and children understand screens and smartphone use in the home (although not in relation to parent-teen tensions). Specifically, this scholarship finds that upper-middle-class families tend to purchase devices for everyone in the family. Thus, devices are seen as being "owned" by one person and are not shared among family members [37]. While children and teens in these families are likely to have their own devices, parents worry about the negative effects of screens on children. As such, upper-middle-class parents are eager to restrict screen time, except in cases where technology use is seen as being related to goals of individual achievement [2]. Professional parents, however, often use their smartphones to stay connected to work and cultivate the networks of support that they rely on to orchestrate complex lives [5]. These parents are conflicted by the sense that smartphones are both dangerous and useful [22].

By contrast, working-class families are more likely to share devices, particularly among children [37]. The value of devices is further made clear in working-class families when parents expect teens to work and pay for their own devices [37]. Getting a device is thus seen as one way to promote responsibility and self-sufficiency [37]. Related to the expectation that teens will work for and be responsible for their own devices is what Clark terms an "ethic of respectful connectedness" [11], in which parents coach teens to demonstrate respect, resilience, and a strong work ethic through technology use. According to Clark [11], parents who embrace this ethic often emphasize using technology to connect with family members because they view family bonds as key in enabling teens to navigate their present and future worlds. Consistent with Clark's findings, other scholars find that working-class families also support each other in learning to navigate technical challenges, such as dealing with broken hardware and unstable Internet connections, finding desired information, and downloading software and resources [21, 26]. Overall, working-class parents view teens' use of smartphones to complete independent tasks (e.g., leveraging online information) and build familial relationships as important in facilitating teens' long-term success [11].

Clark's work on social class differences in families' views of technology hints at sources of tension [11]. She finds that upper-middle-class parents often restrict teens' technology use because they fear that teens' devices will distract them from completing their present extracurricular and academic tasks [11]. Teens express frustration when they perceive these monitoring practices as an intrusion on their sense of autonomy [11]. In addition, some working-class teens view parents' strict oversight of their technology use as a sign of care [11]. Yet, other working-class teens

describe parental mediation strategies as undercutting the development of trusting familial relationships, which goes against the working-class goals of nurturing familial bonds [11].

One of the most interesting undercurrents in the literature reviewed above is how social class shapes familial ideas about the ways in which technology promotes or undermines teens' prospects, especially in academic and workplace settings. The relationship between class-based ideas of how to achieve success and tensions around smartphone use warrant future investigation. In other words, two relevant threads are inchoate in current literature: (a) how social class influences familial views about technology's role in teens' immediate achievements and long-term success and (b) how these class-based views contribute to parent-teen tensions. We explore these questions in this paper.

3 METHODS

Our findings emerged from interviews conducted with 87 parent-teen dyads (parents and teens were interviewed one-on-one, in separate rooms and at the same time, for 174 interviews total). The data collection and analysis for this paper were open-ended and inductive, guided by a broad interest in understanding how parents and teens experience their smartphones in daily life.

3.1 Data Collection

We collected the data for this study by interviewing parent-teen dyads. Each parent and teen were taken to separate rooms, where two researchers interviewed them separately and in tandem to broadly explore the role of smartphones in everyday life.

At the beginning of the interviews, participants were informed that the researchers were interested in understanding their experiences with smartphones in daily life. To encourage free expression of thoughts and experiences, the researchers reminded participants that their responses would remain anonymous and confidential—even from their parent/teen. The interviews typically lasted 30 minutes (ranging from 25 to 35 minutes), and they were video-recorded and transcribed for data analysis.

As we were interested in understanding participants' experiences with smartphones in their everyday lives, the interviews focused on participants' feelings about smartphones; descriptions of smartphone use in everyday life; personal, familial, and general norms and expectations around smartphone use; and the perceived rewards, challenges, and tensions around smartphone use. While phone-related parent-teen tensions were explicitly part of the research design, the interviews did not explicitly explore how their experiences with smartphones relate to social class. These findings emerged inductively during data analysis.

Interview questions were chosen to elicit open-ended responses from the participants and were not intended to test prior theoretical findings. Examples of interview questions include: "How would you describe your feelings about your phone in general?"; "What do you find rewarding about phones in today's day and age?"; "Do you have any expectations around phone use within the family? If yes, what are some of these expectations? Do you/your parent do anything to enforce these expectations?"; and "Do you experience any phone-related tensions in your family? If yes, can you give an example of a tension you faced?" Interviewers probed for details whenever

participants gave general answers. For example, if a participant responded to the question, "What do you find challenging about phones in today's day and age?" in generalities, the interviewer would then ask the follow-up question, "Can you describe the last time you had a negative experience with your family due to the phone?"

We recruited participants by contacting different parent and teen groups in Southern California, including parenting support groups and educators from nearby middle schools, high schools, and colleges. Participants lived across 53 ZIP codes in Orange County, California. They traveled to a local university to take part in the study, and each participant received a \$50 Amazon gift card to participate in the entire study. The research studies were conducted from March 2016 to October 2017.

The parent-teen dyads in our study were from two moderately distinct socioeconomic backgrounds. We followed past sociological and HCI studies by categorizing parents' and teens' social class based on their families' median household income and geographical location [2, 29, 37]. Based on the 2017 U.S. Census Bureau's estimates, upper-middle-class families in this paper refer to those who earned more than the 60th percentile of household income in Orange County (i.e., \$97,200) [33]. These families also lived in ZIP codes where parents are often professionals (e.g., lawyers, engineers, and doctors) who have at least a bachelor's degree. Working-class families met the alternative criteria: they earned less than the 40th percentile of household income in Orange County (i.e., \$61,400) [33] and lived in neighborhoods where parents generally hold lower-status jobs (e.g., food preparation, administrative support, and personal care) and have less than a bachelor's degree.

3.2 Data Analysis

We used thematic analysis and engaged in multiple rounds of inductive coding to analyze our interview data [7]. Throughout the data analysis process, we met regularly to discuss and refine the emergent codes and themes [10].

In the first round of open coding and analysis, we looked for descriptions of and opinions about how smartphone use led to tensions between parents and teens. Both parents and teens reported some tensions around teens' privacy, online safety, and consumption of age-inappropriate materials. However, it became clear that the prevailing driver of tension was the relationship between smartphone use and success in extracurricular and academic activities. We thus chose to focus on the tensions that arose as parents and teens navigate success (or failure) in these activities.

At the beginning of the study, we did not intend to focus on either social class or teens' extracurricular and academic activities. However, in analyzing families' descriptions of tensions around teens' smartphone use, two dynamics became apparent: first, extracurricular and academic achievements were important to all parents; and second, all parents had opinions about how appropriate smartphone use was linked to both immediate extracurricular and academic achievements and long-term success.

In order to explore these initial insights, we engaged in a second round of coding. In this round, we generated descriptive codes around the smartphone's role in teens' extracurricular and academic endeavors, such as "asking for homework help," "getting feedback

Table 1: Demographic information of parents

	Upper-middle-class (n = 31)	Working-class (n = 56)
Gender	Female (28.1%), Male (9%)	Female (46%), Male (16.9%)
Age	Mean (SD) = 50.3 (8.17); Range = 33-67	Mean (SD) = 48.2 (4.53); Range = 38-60
Race/ethnicity	Asian (61%), White (25%), Hispanic (14%) ¹	Asian (45%), White (29%), Hispanic (26%)
Household income	Mean (SD) = \$210,978 (13,890) Range = \$100,000-\$900,000	Mean (SD) = \$41,756 (\$1,070) Range = \$30,000-\$60,000
No. of children	Mean (SD) = 2.5 (1.09); Range = 1-5	Mean (SD) = 2.1 (0.72); Range = 1-4

¹We recognize that the terms “Asian,” “White,” and “Hispanic” are broad and homogenize the experiences of people from various races, ethnicities, and national backgrounds. We chose to use these terms because they are emic terms used by the vast majority of our participants in describing themselves.

Table 2: Demographic information of teens

	Upper-middle-class (n = 31)	Working-class (n = 56)
Gender	Female (23.6%), Male (12.4%)	Female (32.6%), Male (31.4%)
Age	Mean (SD) = 15.9 (2.04); Range = 12-19	Mean (SD) = 16.6 (2.29); Range = 12-19
Race/ethnicity	Asian (58%), White (28%), Hispanic (14%)	Asian (43%), White (28%), Hispanic (28%), Black (1%)

on extracurricular skills,” “managing schedules,” and “planning logistics.” When writing reflective memos about these initial codes, we noticed that upper-middle- and working-class families had contrasting perspectives of how smartphones might help or hinder teens in attaining extracurricular and academic achievements. In other words, differences in how parents conceived of the relationship between smartphone use and immediate and long-term success were related to their social class. We then grouped our codes according to social class and, in analyzing quotes across groups, developed the conceptual categories of “scaffolded achievements” and “empowered self-sufficiency.” In sum, we found that families’ orientations toward smartphone use—as guided by their class-based goals for teens—are consistent drivers of parent-teen tensions.

In our Results section, we first describe families’ class-based orientations toward teens’ smartphone use. We then present the ways in which these orientations contribute to phone-related parent-teen tensions.

4 RESULTS

4.1 Upper-Middle-Class Families: Orientation Toward Scaffolded Achievements

Regarding their teens’ smartphone use, we observe upper-middle-class parents espousing what we term an orientation toward scaffolded achievements. Parents with this orientation expect their teens to use their smartphones as communication devices to get proactive assistance with achieving extracurricular and academic excellence. We find that these parents’ social class contexts shape their orientation toward scaffolded achievements. Specifically, their ample resources, intensive parenting practices, and cultural norms around seeking assistance inform their views about the smartphone’s role in teens’ extracurricular and academic lives. Simply put, teens’ use of smartphones to reach out to friends and authority

figures to get clarification, brainstorm ideas, and ask for help is considered appropriate. Parents largely view that learning to cultivate and tap into social networks will contribute to teens’ short-term achievement and long-term success.

Consistent with the findings of previous studies on upper-middle-class parents’ intensive parenting styles (see also [29]), the majority of upper-middle-class parents expect their teens to achieve high competency in both extracurricular and academic endeavors. It is standard for these parents to enroll teens in a wide range of enrichment opportunities, such as surfing, gymnastics, soccer, musical theatre, and violin lessons. It is also common for parents to pay for additional help with academic learning, such as private tutoring or the Kumon Math and Reading Program. These parents viewed such time- and resource-intensive activities as a way to nurture their teens’ talents and give them an advantage in selective college admissions. As Greg¹ described:

“We’ve tried so many things, like ice skating, basketball, and symphonic band. He’s now settled with football, drums, and Youth & Government. . . .It takes a lot of work to shuttle him around and make sure he’s on top of everything, including his schoolwork. He has tighter time constraints, but we’re happy that he’s doing what he loves. . . .These things are also important for college apps and his future.” — Greg, father of 15-yr.-old son

Greg’s comments are broadly representative of how upper-middle-class parents and teens described teens’ demanding schedules. His later remarks that “we’re happy that he’s doing what he loves” also illustrates parents’ and teens’ beliefs that living a gratifying life

¹To ensure participants’ confidentiality, we used participant pseudonyms and randomly changed participants’ ages by ± 1 . We also slightly modified potentially identifiable information, such as extracurricular interests.

involves both achieving one's goals and pursuing one's passions. Such a life includes a process of finding the right set of extracurricular activities and committing to success in each activity. In addition to developing one's unique interests, Greg's concluding sentence conveys upper-middle-class families' perspectives that intensive schedules and multiple extracurricular activities are important in helping teens to get into reputable colleges and to secure rewarding and fulfilling jobs later in life.

Many upper-middle-class parents expressed their exhaustion in tracking their teens' academic progress while managing their long list of scheduling, transportation, and equipment needs for various activities. As a result, these parents discussed leveraging their social connections (e.g., neighbors, fellow parent friends, and family members) and paid help (e.g., chauffeurs and private tutors) to help facilitate teens' enrichment activities. They also described the integral role of their smartphones in enlisting this assistance. According to Elisabeth:

"Our kids are in advanced classes and play three sports each. It's impossible for me and my husband to keep track of everything on our own. . . . We have private tutors to make sure the kids do well in their classes. . . . Thank goodness for the streams of group texts [with parents, coaches, and drivers] to get the schedules and rides in order. The phone is like a lifesaver." — Elisabeth, mother of 13- and 15-yr.-old daughters and 17-yr.-old son

Like Elisabeth, upper-middle-class parents commonly developed scaffolding in order to help navigate their busy lives. Prior sociological studies provide plausible explanations for how these parents' privileged positions, monetary resources, and cultural norms create a situation where it is possible and desirable to call upon others to scaffold teens' extracurricular and academic success [8, 29]. In particular, upper-middle-class parents have the financial resources to pay for private lessons and services [29]. Their ease of seeking assistance—a well-documented hallmark of privilege (see also [8, 29])—also allows them to feel comfortable with reaching out to these people for help when needed.

Given that many upper-middle-class parents believe that using their smartphones to seek assistance in supporting teens' extracurricular and academic pursuits is a necessary and beneficial function of the device, they also encouraged their teens to activate a similar strategy. For example, Kevin discussed instructing his son to participate in online team discussions and seek assistance from his coach and peers:

"The boys have a group chat with the coach. Outside of practice, they'll text each other: 'Check out my throwing form; how can I improve it?' or 'Look at this offensive play; do you think we can pull it off?' This is how their generation learns new skills and build friendships. . . . I've told my son many times now, 'You should actively participate and reach out if you have questions. Creating community and asking for help is an incredibly useful skill.'" — Kevin, father of 14-yr.-old son

Kevin's comments reflected most upper-middle-class parents' beliefs that excelling in extracurricular and academic activities requires the help of coaches, teachers, and peers; it is not a solo endeavor. These parents reported viewing smartphones as communication devices that present opportunities for teens to get not only a ride to practice but also valuable help in staying up to date, completing certain tasks, and honing particular skills outside of class.

Micah, Kevin's son, seemed to have internalized Kevin's lessons. When talking about the smartphone's role in his sports participation, Micah said:

"Right now, we're focusing on increasing our shot power. . . . We'll send each other videos of what our shots look like now so that the coach or other players can suggest ways to fix any mistakes. . . . Dad says that asking others for help is good, and I totally get it." — Micah, 14-yr.-old son

Like Micah, many upper-middle-class teens' responses mimicked their parents' messages about developing scaffolding. That said, some teens, particularly those who described themselves as being shy, talked about being reluctant to use their smartphones to ask for help. Jessica explained how she felt about her parents' expectations around smartphone use:

"[My parents] talk about this. I know I should take advantage of [my phone] and call someone if I need help with homework. But it can be a little hard. I'm not very outgoing and I'm not super close to my classmates, so I don't really text them about it." — Jessica, 14-yr.-old daughter

Jessica's comments revealed that while she hesitates to use her smartphone to ask for help, she has been brought up to believe that she *should* be taking the initiative to do so. A few parents described being aware of their teens' shyness. In these cases, parents described talking to their child about how to overcome the propensity to do things entirely on their own and rely on a support network for help. When asked if he'd like his daughter to change her smartphone use, Lucas gave an example from the past:

"My youngest [daughter] used to be timid and held back from texting friends when she got stuck with a homework question. . . . So, I coached her, letting her know that there's nothing wrong or scary about getting help. Like, she can ask friends, 'Did you do this?' or 'How did you do it?' It took a while, but she's much better about finding which classmate can help her and texting them now." — Lucas, father of 15- and 18-yr.-old daughters

Several upper-middle-class parents talked about persistently encouraging shy teens to use their smartphones to get assistance with homework (and other forms of help) when needed. Across the board, upper-middle-class parents reported actively coaching their teens to embrace an orientation toward scaffolded achievements, and we observed many teens adopting a similar orientation.

4.2 Upper-Middle-Class Families: Tensions Around Teens' Smartphone Use

While both upper-middle-class parents and teens made statements that suggest they assume an orientation toward scaffolded achievements, adopting this orientation can also lead to tension in the home. Tensions arise when parents and teens disagree on the underlying goal of smartphone-mediated interactions. For example, they both feel that socializing with friends over the smartphone can enable teens to build valuable connections essential for future assistance and support. At the same time, parents were keenly aware that such socializing can distract teens from the present extracurricular and academic tasks. Many parents and teens described struggling in their attempts to come to a shared understanding of whether or not a particular episode of smartphone use was in service of developing support structures or “slacking off.” They gave examples of how conflicting views on this topic can lead to parent-teen tensions. For example, Margaret wanted her daughter to stay focused in group conversations about homework so that her daughter would have enough time to juggle her hectic schedule:

“It’s great that they use the phone to help each other. But they also use it to chitchat a lot, and she could get her homework done much faster otherwise. . . . I don’t want her to lose sleep over homework because she’s always on the go and needs the rest.” — Margaret, mother of 17-yr.-old daughter

Like many upper-middle-class parents, Margaret is concerned that while her daughter’s smartphone use enables her to seek homework assistance, it can also interrupt her focus and cause her to take longer to complete her homework. Given that her daughter is “always on the go” and enrolled in a dizzying array of enrichment activities, this distraction can disrupt her ability to manage her packed schedule. Margaret continued:

“Sometimes I’d tell her to rein in the chit chat, but she’d talk back saying: ‘That’s just how we communicate when we talk about homework.’ There’s no clear-cut way to know at which point chitchatting stops being a social lubricant and starts being a time sink. . . . It’s based on gut feelings, and everyone has a different view about it, so that’s how the arguments start.” — Margaret, mother of 17-yr.-old daughter

In a similar vein, when asked about whether she experienced phone-related tensions in her family, Margaret’s daughter, Michelle, said:

“Mom and I can be on different pages sometimes. We both know that focusing only on homework when getting help from friends is awkward because it seems like I’m only talking to them for help. I care about our friendships too, and I don’t want them to feel that way. . . . Things escalate when mom thinks I’m not being productive enough, but I think that the off-topic convos are part of my process of getting help.” — Michelle, 17-yr.-old daughter

Whether or not her mother is accurate in her “gut” feeling about Michelle’s productivity, Michelle’s language displays an impressive degree of nuance about the subtle rules around getting help from friends. Margaret and Michelle’s comments are representative of

many parents and teens’ struggles to agree on the line between socializing and help-seeking. Both upper-middle-class parents and teens assume that developing scaffolding is integral to achieving extracurricular and academic success. At the same time, they also want teens’ smartphone use to foster purely social relationships. Thus, tensions arise in the ambiguity between casual conversations that build support networks for future assistance and socializing that hampers teens’ pursuit of excellence.

4.3 Working-Class Families: Orientation Toward Empowered Self-Sufficiency

Like their upper-middle-class counterparts, most working-class parents described wanting their teens to excel in their academic and extracurricular endeavors. However, these working-class parents held different assumptions about the role of smartphone use in achieving this goal. Their limited resources, less-intensive parenting style, and cultural norms coalesce in their assumptions around what it takes for teens to ensure both short-term success in extracurricular and academic activities and longer-term success in higher education and the workplace. Specifically, they stressed the importance for teens to become accountable for managing their own schedules and solving their own problems. For working-class parents, we heard numerous statements that suggest an underlying orientation toward empowered self-sufficiency, in which parents want teens to use their smartphones to enhance independence and self-reliance.

Similar to upper-middle- and working-class parents in previous studies [3, 25], working-class parents often expressed their aspirations for their teens to attend college and enter the professional workforce. When discussing their teens’ futures, these parents talked about their hopes for teens to experience upward socioeconomic mobility. But, whereas upper-middle-class parents were largely confident that their children will achieve extracurricular and academic success, working-class parents’ limited experiences with college and professional occupations largely led them to hope for these outcomes rather than expect them. As such, many working-class parents talked about preparing their children to face a world with high levels of material constraints and job insecurity.

In light of their socioeconomic milieu, working-class parents often emphasized that teens should use their smartphones in ways that promote character development. They described wanting teens to be responsible for their own extracurricular and academic pursuits, as they viewed it as a way for teens to take ownership of life and hone the skills needed to tackle life’s challenges. According to Hannah:

“We work multiple jobs to pay the bills, so we’re not always able to be right next to them to help out. And, no one is going to coddle you in life. . . . They have to experience things on their own to grow. We’re here for her, but we ultimately want her to become independent. Instead of waiting for people to hand opportunities to them, we want them to forge their own path and know how to tackle their problems.” — Hannah, mother of 14-yr.-old son and 16-yr.-old daughter

Hannah urges her teens to avoid “waiting for people to hand opportunities to them.” This language is representative of numerous statements from working-class parents that encourage teens to hold themselves accountable for their own success instead of relying on others for help. This attitude translates directly into how these parents coach and guide their teens’ smartphone use. For example, Sarah shared an example of how her mother encourages her to use the smartphone to nurture her interests:

“I like editing anime videos. . . Video editing classes can be expensive, so my mom asked if there were other ways for me to learn the skills. I looked online, and it turns out that there’s a youth filmmaking club at a nearby library. . . We’re now working on a group project. . . With the phone, it’s easy for me to get bus rides, sign up for events, and share my video cuts with everyone.” — Sarah, 16-yr.-old daughter

Sarah’s comments suggest that while her smartphone helps her engage in extracurricular activities, she is not expected to be proactive in using her smartphone to ask support networks for assistance. Rather, her mother’s working-class context compels her to teach Sarah the values of information seeking and self-sufficiency. Like Sarah, several teens talked about searching for free or affordable opportunities proactively and to plan the logistics around extracurricular participation by using their smartphones. Thus, we see that in contrast to upper-middle-class parents, who teach their teens to use their smartphones to get help with their extracurricular pursuits, working-class parents expect their teens to leverage their smartphones to be resourceful and independent in developing their own interests.

With regard to teens’ problem-solving around homework challenges, many working-class parents described wanting their teens to use their smartphones in ways that allow them to work through their problems on their own. For example, these parents expect their teens to draw on internet resources, supplemental materials, and video tutorials rather than reach out to friends for help. Olivia explained:

“I tell them, don’t use the phone to be lazy. . . Kids these days don’t do their own research as much even though there’s plenty of information online. They just ask the teacher or a friend for help. Instead of using their common sense to figure it out, they’re using the phone to get people to think for them.” — Olivia, mother of 12-yr.-old daughter and 17-yr.-old son

Like Olivia, most working-class parents discussed discouraging teens from relying too much on others’ help when addressing homework issues. Some parents equated such help-seeking strategies with being “lazy” and undermining their work ethic. Others reported wanting teens to respect their teachers and friends’ time by not overburdening them with questions that they could potentially answer on their own.

Consistent with their parents’ coaching, many working-class teens described the importance of holding themselves accountable for doing their homework without their friends’ help. When asked about his parents’ expectations around his smartphone use, Elliot said:

“My parents don’t put any restrictions on my phone use. But even then, I don’t really use it to message friends when doing schoolwork. . . I try to work hard to learn the materials by myself. . . If I have any questions, I try to Google the answers. And if I really need more help, then sometimes I’ll text my friends.” — Elliot, 15-yr.-old son

Many working-class teens described trying to study and deal with homework questions on their own. These teens talked about how they preferred leveraging online resources over asking friends for help because they associated the former problem-solving tactic with being “hard-working” and the latter as a form of weakness. While they did talk about texting or calling friends for assistance, these teens characterized this move as a last resort when they “really need more help.” Overall, in contrast to upper-middle-class parents and teens, who readily leveraged a large support network to help facilitate teens’ extracurricular and academic success, working-class parents and teens valued being independent when pursuing excellence in these domains.

4.4 Working-Class Families: Tensions Around Teens’ Smartphone Use

While many working-class teens appeared to have internalized their parents’ orientation toward empowered self-sufficiency, it is important to note that some teens diverged from their parents’ perspectives on how to go about achieving short- and long-term success. Some working-class teens attend private schools or schools in wealthy areas that largely embrace the upper-middle-class norms of seeking assistance. These teens described experiencing episodes of conflict with their parents when they chose to comply with teachers’ expectations to ask for help instead of following parents’ expectations to solve problems on their own. Tasha, a scholarship student at a private school, mentioned that her parents want her to “get work done on [her] own rather than text friends for help.” When asked how she felt about her parents’ expectations, she said:

“It’s really hard. My friends are used to texting each other about homework, and the teachers expect that. . . [because] it helps with learning. I don’t want to upset my parents, but I also don’t want to miss out on stuff.” — Tasha, 16-yr.-old daughter

Like several other working-class teens at upper-middle-class schools in this study, Tasha’s comments made it clear that she is aware of the conflicting expectations at home and in school around proactively getting help when encountering school-related challenges. Her struggle to resolve these tensions revealed her liminal position between upper-middle- and working-class expectations around asking for help vs. being self-reliant as well as her challenges in navigating class-based help-seeking strategies.

Working-class teens’ internal conflicts around seeking assistance can result in parent-teen tensions if the teen chooses to enact upper-middle-class help-seeking norms and the parent views that as defying parental guidance or being lazy. For example, Tim recounted:

“She cried once saying she couldn’t do her homework without [the phone]. It was really tense, and it was

a three-hour argument. She's like, 'I need it to ask my friends about homework.' But then I'm like, 'Why can't you do it on your own? Are they going to get you into college or pay your bills? You need to work hard when learning.'" — Tim, father of 13-yr.-old daughter

As described in the previous section, many working-class parents echoed Tim's sentiments, expressing concerns that consistently asking friends for homework help may harm teens' future prospects. That is, their views directly contrasted upper-middle-class parents' perspectives about the phone-related actions that would lead to short- and long-term success. While all parents want their children to achieve long-term success in college and the workplace, working-class parents prioritized self-reliance and independent problem-solving skills over proactive help-seeking behavior in their expectations of how teens should engage with their smartphones.

While the attempt to navigate an orientation toward scaffolded achievements and an orientation toward empowered self-sufficiency can be difficult for teens and parents alike, some working-class families mentioned that such parent-teen conflicts can be diffused if parents learned that teachers expect students to readily seek assistance with homework problems. Isaac mentioned:

"My teachers use Google Classroom to post and collect assignments. We also have a couple of Facebook study groups, so I'm constantly on my phone. . . I've explained to my parents that the teachers actually encourage us to take advantage of the phone's functions, and they seem to understand that." — Isaac, 14-yr.-old son

In a similar vein, David described developing a clearer understanding of what his teens' school expected regarding help-seeking practices and smartphone use—even though these assumptions conflicted with his sense of how teens should cultivate self-reliance:

"The school is all about collaborative learning. Now, with the phone, you can easily contact friends. . . So, it does make sense when [teachers] say they're totally fine with kids getting ahold of someone who can help clarify questions about the assignment." — David, father of 13-yr.-old and 16-yr.-old sons

Like Isaac's parents and David, working-class parents described deferring to teachers' advice around learning and educational matters (see also [8]). Because these parents view educational attainment as a step toward upward socioeconomic mobility, they reported a willingness to accept teens' smartphone use for school-related assistance if teachers encouraged such help-seeking strategies. In such cases, the parent-teen conflict was mitigated.

5 DISCUSSION

By examining how upper-middle- and working-class families view teens' smartphone use, we find that, consistent with the findings of prior HCI studies [2, 11, 30], all parents describe caring deeply about their teens' academic and extracurricular achievements and long-term success. This paper contributes to HCI scholarship by showing the ways in which families' social class contexts influence ideas about *how* one should go about achieving short- and long-term success and, in turn, shape parent-teen tensions.

This paper is not advocating for either an orientation toward scaffolded achievements or orientation toward empowered self-sufficiency as being more likely to help teens achieve long-term success. Instead, this paper focuses on exposing the class-based origins of these orientations. Further, we show how these orientations lead to different parenting tactics and sources of parent-teen tensions around smartphone use.

We find that the upper-middle-class parents often embrace what we term an orientation toward scaffolded achievements, in which parents expect their teens to use their smartphones to ask their support networks for help with achieving extracurricular and academic excellence.² Prior sociological literature offers plausible explanations for how these parents' specific social class dimensions, such as income as well as educational and occupational status, shape their parenting practices. As Kusserow [28] and Lareau [29] show, upper-middle-class parents often engage in intensive parenting practices, and they can afford to enroll their teens in numerous enrichment activities. These parents' ample resources also allow them to get the rich array of external support needed to manage teens' complex schedules and transportation needs [5]. In addition, upper-middle-class parents' educational and occupational attainment lead them to be highly involved at school [8]. Such involvement then enables them to learn about the schools' expectations and understand that teachers generally encourage students to be proactive with getting help when solving problems [8]. Thus, by linking our findings with those of past studies, we see how upper-middle-class parents' social class context might influence them to adopt an orientation toward scaffolded achievements.

Working-class parents also describe wanting their teens to achieve extracurricular and academic success (although these teens are enrolled in fewer enrichment activities due to resource constraints). Their social class context also shapes assumptions about what leads to success in these endeavors. In particular, working-class parents often ascribe to what we call an orientation toward empowered self-sufficiency. Working-class contexts create an environment where families have fewer socioeconomic resources and face higher levels of job uncertainties than their upper-middle-class counterparts [13, 34]. In response to this context, past research shows that working-class parents think that children must grow up to be self-sufficient and resilient [8, 25]. We see these attitudes reflected in our data when working-class parents stress how important it is for teens to have independence and have a strong work ethic because working-class parents often view these characteristics as essential in helping teens overcome hardships in life. Thus, it is not surprising that these parents want their teens to use their smartphones in ways that enable them to be independent and be in charge of their extracurricular and academic lives.

Past sociological research finds that working-class parents' lower educational and occupational status commonly leads them to defer to teachers' judgments about their teens' education [8]. This deference contributes to parents being less involved at school, which,

²Upper-middle-class parents may be encouraging their teens to leverage their social networks in service of fostering teens' collaboration and teamwork skills rather than help-seeking behavior. However, most upper-middle-class parents in our study, without prompting, used language around "asking for help" instead of "collaboration" and "teamwork" during the interviews. In addition, our findings that show social class differences in parents' and teens' attitudes and practices around help-seeking are consistent with prior sociological literature in the school setting [8].

paradoxically, means they have fewer insights into teachers' actual expectations around help-seeking behavior [8]. As a result, these parents often default to their working-class values around self-sufficiency and hard work when parenting teens' smartphone use. In sum, working-class parents are less likely than their upper-middle-class counterparts to encourage teens to immediately reach out for assistance when encountering schoolwork problems [8]. Our findings suggest that those with an orientation of empowered self-sufficiency frame smartphones as tools that allow teens to be proactive and self-sufficient, achieving extracurricular and academic success on their own. For example, working-class parents largely encourage their teens to use their smartphones to search for answers online and watch video tutorials.

In light of their parents' coaching, many upper-middle- and working-class teens internalize lessons about the smartphone's role in extracurricular and academic pursuits. That said, there are variations in the extent to which teens embraced these class-based orientations. For example, upper-middle-class parents with shy teens discuss how their teens did not automatically implement parental lessons around texting or calling friends for homework help. On the other hand, working-class teens at upper-middle-class schools largely describe wanting to be proactive in getting help from others when needed by using their smartphones.

Our findings also expand scholars' current understanding of the sources of parent-teen conflicts around teens' smartphone use. According to prior literature [6, 16, 19], parent-teen tensions often arise from individuals' personal and generational differences on what constitutes appropriate smartphone use. However, this line of scholarship has not yet fully explored how individuals' social class influences parent-teen tensions. This paper is unique in that it spells out how class-based orientations around teens' smartphone use can be the basis of phone-related parent-teen tensions. Specifically, we find that parent-teen tensions arise in upper-middle-class families when they disagree on whether teens' smartphone use helps build the essential connections for success or distracts them from current responsibilities. By contrast, tensions within working-class families occur when teens who attend upper-middle-class schools use their smartphones to get help in ways that align with the upper-middle-class culture. When this happens, parents may interpret their teens as being lazy or not self-sufficient.

Furthermore, our findings have implications for research that examines the process in which parents and their teens come to adopt similar class-based views about teens' extracurricular and academic pursuits. Scholars who study cultural transmission suggest that parental goals and beliefs largely shape families' phone-related views and that teens internalize their parents' perspectives [8, 29]. We expand this understanding by showing that teens can also influence their families' phone-related views through enacting cultural scripts from outside of their homes and, in particular, their schools. For example, we observe that working-class teens at upper-middle-class schools may adopt the schools' dominant norms around using their smartphones to request schoolwork assistance. We see that if working-class parents were to understand that such behavior stems from teachers' expectations, then these parents are likely to become flexible in accepting teens' embrace of an upper-middle-class help-seeking strategy.

It is also important to note that all parents want their teens to use their smartphones to seek help appropriately and work self-sufficiently. However, the parents in our study strongly tended toward a particular class-based orientation when imparting these values to their teens. Their responses suggest that these class-based patterns are worth exploring and considering with thoughtfulness and nuance. We thus call for HCI parent-teen studies to pay more explicit attention to families' social class contexts and their views of smartphone use and extracurricular and academic success. Such an emphasis is necessary for enriching the HCI community's understanding of (a) how socioeconomic realities shape families' perspectives of the relationship between smartphones and success and (b) how to design mobile apps accordingly.

5.1 Implications for Design

Echoing other HCI scholars [2, 37], we call for a deeper investigation of how sociocultural differences (e.g., social class, race, immigrant status, etc.) shape families' attitudes toward smartphone use. Drawing on our findings, we specifically encourage designers to consider how technological designs align with families' class-based perceptions of the role of smartphones in teens' extracurricular and academic pursuits.

In addition to attending to social class differences *across* families, designers should consider the class-based differences *within* families. Our study reveals that working-class teens at upper-middle-class schools may enact phone-related help-seeking strategies that directly contradict their parents' class-based beliefs. As such, we urge designers to consider the case in which family members are embedded in cross-class contexts. For example, if working-class parents want to promote technology use that empowers self-sufficiency, and teens want to enact upper-middle-class norms that encourage proactive help-seeking, how can technological designs address these conflicting values within the family?

Specifically, our findings suggest the potential of family-focused apps to inspire reflection and cross-generational communication about the role of teens' smartphone use in facilitating extracurricular and academic success. For example, designers of parental control apps could move away from focusing on enabling parents to implement authoritative restrictions. Instead, they could prompt parents and teens to discuss the reasons behind certain restrictions on teens' smartphone use. Designers could also prompt teens and parents to reflect on how teens are using messaging apps during schoolwork sessions and what are the links between help-seeking and socializing.

5.2 Alternative Accounts, Limitations, And Future Work

This paper shows how social class contexts influence the ways in which parent-teen dyads view the relationship between teens' smartphone use and extracurricular and academic achievements. However, both the inductive nature of this project and the limitations of these data made it impossible for us to explore the potential role of other sociocultural factors in attitudes about smartphone use. During the study design and data collection process, we did not directly focus on how participants' backgrounds might influence their phone-related views. As a result, we did not recruit a sufficient

number of participants from certain backgrounds—specifically related to race and immigrant status—to delve into the possible effects of these life experiences on views about smartphones. We also did not explicitly ask participants about potentially relevant immigrant and racial experiences. Only nine parents voluntarily discussed their immigrant experiences, each in the context of staying connected to distant family rather than in relation to parenting. None of our participants brought up their phone-related attitudes and practices in relation to race and racism.

While we did explore these themes during data analysis, these efforts did not reveal clear patterns tied to immigrant and racial experiences. As such, we cannot explore possible connections between social class, immigrant experiences, race and racism, parenting, and phone-related attitudes with these data. Given that immigrant status and race are closely intertwined with social class, future work should also consider how these factors might lead parents and teens to adopt a particular orientation toward teens' smartphone use.

For example, prior research suggests that participants' immigrant experiences can shape their phone-related attitudes [4, 35]. Wong-Villacres, Kumar, and DiSalvo suggest that working-class parents' immigrant experiences may shape their orientation toward empowered self-sufficiency [35]. In particular, working-class immigrant parents—specifically those with limited familiarity with the education system in the U.S. or limited fluency in English—may face difficulties with helping teens solve homework issues [35]. As a result, these parents might emphasize the need for their teens to develop self-reliance and independent problem-solving skills in school.

The scholarship also suggests that teens' racial experiences can shape their perceptions of phone-related help-seeking strategies in school [18, 24]. Gast [18] and Holland [24] find that schools are often unable to adequately address the unique needs of working-class Black students as they navigate their academic careers. The experiences of getting unhelpful responses when seeking assistance may contribute to these students' hesitancy around asking for homework help.

Therefore, future research should explicitly attend to the intersections between social class, immigrant status, and race when examining how parents and teens view the role of teens' smartphone use in facilitating teens' extracurricular and academic success. Such attention will enable scholars to illuminate how other sociocultural contexts shape families' orientations toward their teens' smartphone use.

6 CONCLUSION

By interviewing 174 parents and teens from upper-middle- and working-class contexts, we show how socioeconomic structures shape families' orientations toward teens' smartphone use and how these class-based orientations can contribute to parent-teen tensions. We find that across the board, both upper-middle- and working-class parents want to nurture their teens' smartphone use in ways that enable them to achieve extracurricular and academic success, and they expect that such short-term achievements will lead to long-term success. Strikingly, while parents have similar underlying motivations, they have different assumptions about what it takes for teens to attain both short- and long-term success. These

assumptions in turn shape both their parenting tactics and parent-teen tensions around teens' smartphone use. In sum, we argue that socioeconomic structures provide a unique and compelling lens to explore how parent-teen tensions around smartphone use manifest and what the relationships are between these tensions and broader ideas around achievement and success. We also call for designers to create technologies that consider families' contrasting class-based orientations toward teens' smartphone use.

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