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NET TIME NEGOTIATIONS WITHIN THE FAMILY

Drawing on data from one-on-one and focus group interviews with high school students from schools in agricultural California, this research examines how American families negotiate what we call net time. The article explores intra-familial bargaining over time spent on the internet. Analysis pays special attention to families that prioritize capital-enhancing activities such as schoolwork and college applications. In these families, access to resources is guided by implicit social contracts between parents and children, as well as between siblings. The findings illuminate how these social contracts imply particular rights and responsibilities depending on the families' level of wiredness: highly wired, partially wired, and unwired families. Comparing the experiences of students from these three groups reveals that members of each kind of family experience a different form of net time. While youths from highly wired families enjoy individualized net time, members of partially wired families divvy up household net time. The most disadvantaged youth come from unwired families in which family members must make sacrifices for youth to obtain net time outside of the household. The examination illuminates the logics that underpin the familial negotiations over each kind of net time. Ultimately, familial social contracts over net time have the power to encourage or hinder use of net time for capital-enhancing activities.

Keywords computer-mediated communication; digital divide; family; domestication of ICTs; young people; information habitus; net time; digital inclusion

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Introduction

Previous new media research has cast light on how information and communications technology (ICT) use impacts networked families. At the same time,

inquiries into familial relationships have shown that families negotiate access and usage of ICT resources within the family unit. However, studies to date have not examined the underlying logics of ICT negotiations within the family. Our study ventures into this unexplored territory. In our study, we find three types of families with varied access to ICT resources: highly wired, partially wired, and unwired families. We contrast the ways that negotiations over what we call ‘net time’ unfold in these more and less wired families that appropriate ICT resources differently. While earlier literature on digital inequalities focused primarily on internet access via computers, this terminology does not capture the proliferation of different kinds of digital and handheld devices. To accurately capture the ways that families access ICT resources using a variety of devices, we introduce ‘net time’ to indicate connectivity using any digital device: smartphones, iPads, laptops, computers, iPods, etc. We ask: What kinds of implicit social contracts regulate net time within the family? What logics underpin net time allocations for capital-enhancing activities? Do social contracts between family members differ across highly wired, partially wired, and unwired families?

Digital inequalities and capital-enhancing activities

A number of studies draw on Bourdieu’s (1980) concept of capital to examine ICTs. Hamelink briefly introduces the concept of ‘information capital’ (2001), which is reiterated by van Dijk to include both ICT skills and the financial ability to pay for ICT hardware and access (van Dijk 2005, pp. 72–73). Scholars have also shown the interrelations between information capital and social reproduction. Such studies indicate a feedback loop in which the individuals inclined to use ICTs for capital-enhancing purposes are likely to already possess substantial offline human capital. For example, better-educated individuals are more likely to strategically use ICTs to further their educational goals and better their ICT skills to enhance their performance in the labor market. By contrast, those individuals with less offline human capital are more likely to use ICTs for recreation. In sum, those with offline capital engage in capital-enhancing activities such that ICT use becomes a vehicle for the reproduction of social advantage (Rojas *et al.* 2004).

More specifically, Witte and Mannon (2010) show how better-educated individuals have larger internet ‘footprints’ or use the internet for more diverse capital-enhancing activities such as skilled information-seeking. By comparison, less-educated individuals are more likely to use ICTs for activities such as entertainment that do not improve their knowledge or skill sets (DiMaggio *et al.* 2004). As DiMaggio and Bonikowski’s 2008 study indicates, capital-enhancing ICT activities give workers better skills that allow them to earn better wages. The advantages of capital-enhancing ICT activities also manifest themselves where health-related internet use is concerned (Cotten 2001; Hale 2013). In addition, capital-enhancing ICT activities are particularly important

for school-aged youth as they influence outcomes such as academic achievement (Schofield & Davidson 2002; Lei & Zhao 2007; Thiessen & Looker 2007; Livingstone 2009; Cotten *et al.* 2011).

However, not all groups perceive the connection between capital-enhancing ICT activities and payoffs. Taking advantage of Bourdieu's framework, a complementary stream in the literature explores how perceptions of ICT use replicate disadvantage. Hale's (2013) work indicates that social conditions influence attitudes toward internet use. Kvasny (2006) reveals that perceptions of ICT use discourage disadvantaged groups from fully using ICTs. Further, linking Bourdieu's concepts to ICT use, the notion of the 'information habitus' (Robinson 2009) shows how disadvantaged youth frame appropriate internet use as task-oriented without realizing that this stance ultimately hinders their ICT skill-building.

Capital-enhancing activities and the family

We also find the concept of the information habitus valuable to our study of familial ICT negotiations. More specifically, in our study we apply the concept of the information habitus into the familial context in regard to rules encouraging capital-enhancing activities. Applying the notion of information habitus allows us to study how differently situated families develop shared understandings that regulate their ICT use. In so doing, this research highlights the interplay between ICTs and familial governance that we believe is central to encouraging capital-enhancing activities, such as schoolwork. Previous study substantiates that children are highly aware of the familial rules that govern ICT use: '... even if explicit rules are not articulated, children may be aware of parents' comments about or behavior in relation to various aspects of media, hence may be influenced by "implicit" parental preferences' (Roberts *et al.* 2005, p. 16). According to Rodgers and White (1993), families are a kind of 'self-regulating system' in which members engage in transactions that regulate membership in the familial collectivity.

Other researchers bring ICTs into this equation to propose that new media impacts familial systems, especially in terms of rules and negotiation (Lanigan *et al.* 2009). Familial negotiation implies a process of 'domestication' (Christensen 2009). According to Mesch, domestication is a 'two-way process' in which the use of ICTs influences the family and, at the same time, the family imbues ICT use with symbolic meanings. Mesch links domestication to digital inequalities and familial resources: 'Domestication implies that families with access to ICT differ from those without them, not only in access to technology but in family dynamics as well' (Mesch 2006, p. 120).

In families, the information habitus can create an environment priming academic achievement (Huang & Russell 2006) or entertainment.¹ Families that domesticate ICTs in favor of capital-enhancing activities will allow individuals

more time to pursue them. By contrast, families that prefer to use ICTs for entertainment will assign greater weight to more pleasurable pursuits. Studies show that when the family environment privileges capital-enhancing activities, children are more likely to pursue them (Mesch 2006; Lee & Chae 2007).

Researchers have also found that parental education is positively associated with guiding children toward capital-enhancing activities (Roberts *et al.* 2005) by placing the computer in a common location (Tripp 2011) and banning websites (Lee & Chae 2007). When families engage in capital-enhancing activities together, children acquire greater skills and, at the same time, families experience greater harmony (Mesch 2006). By contrast, when a family's information habitus prioritizes entertainment or gaming, that family experiences greater strife and discord (Lee & Chae 2007).

While there are connections between parental socioeconomic status and capital-enhancing activities, we believe that insufficient attention has been paid to disadvantaged families. Indeed other studies show that parents from all socioeconomic backgrounds can take an active interest in guiding their children's ICT use for capital-enhancing activities, such as schoolwork (Facer *et al.* 2003). Tripp's (2011) work, for example chronicles economically disadvantaged families in Los Angeles who work hard to help their children achieve and use ICTs for schoolwork.

Familial interactions surrounding ICTs²

In addition to studying the kinds of ICT activities that take place in familial settings, previous research has also explored familial interactions surrounding ICTs. In terms of familial relationships and quality of interactions, Lanigan, Bold, and Chenoweth examine how family members perceive the effects of computers on relationships. On the whole, they find that computers provide potential benefit to families; yet they caution that family cohesion and adaptability must also be considered. Lee and Chae (2007) indicate that the kind of internet use may either enhance or diminish family communication. According to them, gaming has a double negative impact on both family time and family communication. Gaming decreases both time spent with the family and the gamer's communication with other family members. By contrast, they argue that educational internet use increases both time spent with family and connections with other family members.

Studies also indicate that ICT use introduces many new possibilities for intra-familial dissensus and other potential negative effects of ICT use on familial relations. Lanigan *et al.*'s (2009) interviewees identify negative effects on relationships, among them conflict over allocation of computer time. Competition over activities creates conflict, as does parents' use of computers at home due to the blurring of work and home in networked families (Kennedy

et al. 2008). This result is echoed by Mesch (2006), who finds that youth using the internet for social purposes (gaming and peer communications) are more likely to report strain their families. Mesch reports that conflict arises from an 'expectations gap' between parents and children, when family members do not agree on appropriate ICT use.

Finally, research has shown that there are complex negotiations that govern access and usage of ICT resources in the home. On the highly wired end of the spectrum, Horst's (2010) examination of Silicon Valley families indicates that the home environment reflects the family's 'values' and 'morals' implicit in such negotiations between parents, children, and siblings. On the unwired end of the spectrum, Tripp also shows how shared values inform families' ICT negotiations: '... all of the families engaged in a complex set of negotiations and debates about internet access, and all of the parents were active in regulating their children's use of the internet' (2011, p. 553).

Present inquiry: data and methods

While of great value, these studies do not explicitly contrast families along a range of wiredness. In addition, rather than examining the effects of ICTs on the family, we look at how social processes of negotiation, competition, and cooperation within the family influences ICT use. In other words, the article addresses the underexplored aspect of the two-way domestication process, namely the way in which family dynamics affect the allocation of internet resources, specifically what we call 'net time'. Our study seeks to do so by disclosing the underlying logics of familial negotiations around allocations of net time. We contrast the ways that these negotiations unfold in highly wired, partially wired, and unwired families to uncover how families allocate net time. Definitions of 'appropriate' ICT use are central to these negotiations. The present inquiry explores how familial negotiations shape determinations of appropriate and inappropriate use of net time.

The project exploits an original multidimensional data set collected from 2006 to the present. Drawing from this larger project, we analyze interviews with over 500 individuals in both one-on-one and focus group settings in two school sites. The two high schools are located in agricultural California. We draw our data from two schools in order to confirm that variation is not due to the school setting. Each school has students from highly wired, partially wired, and unwired families. We define highly wired families as families in which there are multiple personal devices with which to access the internet so that individual members do not need to jockey for material access. Partially wired families depend on more limited, shared, or communal devices and/or poor connectivity that make home internet access a scarcer resource. Unwired families have no internet access in the home via any digital device. However,

this does not mean that they have never had home internet access. Rather, like the families in Tripp's study, many of these families have been forced to cancel their internet service when they cannot afford it. To situate these groups in the larger American context, according to Tripp (2011), just under one-third of US lower-income teens do not have sufficient home access.

Data comes from two public schools. The first school, School A, is a high-poverty or Title 1 school, making it an excellent site to interview students from unwired and partially wired families. School B is not Title 1, making it an important foil to School A. Among the respondents, highly wired students account for one-third of the students in School A and half of students in School B. Partially wired students represent just over half of interviewees in School A and just under half of School B. Unwired students comprise a sixth of interviewees in School A and under five percent of School B.

As a Title 1 school, School A is designated as a high-poverty school by the state of California. Students are economically and ethnically diverse. Latinos comprise over three-quarters of the student population followed by Whites, Asian Americans and African Americans. Over half of the student population qualifies for free lunch, indicating that a significant number are living at or below the federal poverty line. According to Tripp (2011) this population is of theoretical interest as many previous studies have focused primarily on middle class youths with home computers and internet access.

The second school does not qualify for Title 1 status as it has a larger percentage of economically advantaged students. Whites and Latinos, together, comprise the majority of the student population, followed by African Americans, Asian Americans, and Native Americans. Approximately one-third of students qualify for free lunch, indicating the school's larger percentage of economically advantaged students. The economic diversity across the two school sites optimizes our ability to compare more and less economically disadvantaged students.

In both schools, informed consent documentation was circulated in advance to students and parents so that they could opt out if they chose not to participate or allow their children to participate. Only one student chose to opt out. In School A, as all students must take four years of English courses, data were collected through the English Department. This strategy ensured that the interviews would reflect the full diversity of patterns evident across the student population. Students enrolled in regular, college-prep, honors, and Advanced Placement courses at the time of data collection were invited to take part. It should be noted that there was no selection process including or excluding some students from taking part in the interviews. In School B, data collection took place with students from regular, college-prep, honors, and Advanced Placement courses.

We used criteria-based sampling to identify what we call 'capital-enhancing families'. These students and their families met the following criteria: (1)

students use net time for educational or learning purposes on a regular basis, (2) at least one parent provides resources for educational or learning purposes, and (3) at least one parent sets forth net time rules designed to encourage educational or learning activities. Of the 503 respondents, 221 met the three criteria and 282 did not. The data in this analysis comes from this group of capital-enhancing families.

The questions were developed after a year of ethnographic research and informal field interviews. These questions were pilot tested and refined. All students were asked to answer the same battery of questions. While students were not required to answer every question, each interviewee was given the opportunity to answer every question. The interviews were conducted during the normal school day on the school grounds.

Interviews were a good fit for the research's goal to uncover how families negotiate ICT use and encourage capital-enhancing activities. According to Christensen: '... knowledge of the symbolic and practical dimensions of the everyday life of families is essential ... to establish an adequate understanding of the web of interrelated meanings and practices ...' (2009, p. 437). Luker provides a similar rationale for focus group interviewing, because it produces a self-reproducing cascade of interview talk (Luker 2009).

Questions analyzed in this article covered the following topics: (1) internet access at home, school, and third places; (2) use of ICTs for education and learning; (3) time constraints; (4) home environments; (5) familial resources for education and learning; (6) familial ICT routines; and (7) familial rules governing ICT use. To analyze the data, we used a grounded approach appropriate to emergent conceptualizations and explanatory accounts, rather than the verification of hypotheses or testing of a-priori conceptualizations (McMillan & Morrison 2006; Luker 2009). By moving back and forth between the data and concepts, we generated analytic frames inductively (Alford 1998). We confirmed patterns inductively and then developed targeted coding categories with which we coded and recoded the data.

Through this process, we identified the primary categories of (1) highly wired, partially wired, and unwired families; (2) individualized, household, and extra-household forms of net time; (3) ICT rights and responsibilities; and 4) appropriate and inappropriate ICT use. With these primary categories, we returned to the data and used focus coding to confirm our categories. Through this iterative process, our analytic categories were grounded in the data. While generalizable to our data set, this process does not provide for the testing of hypotheses for other populations. Further, as the data are drawn from a single region of California, the goal is to provide rich analytic description of understudied phenomena rather than to provide a foundation for generalizations to larger populations.

Findings: familial wiredness and types of net time

Across the capital-enhancing families, youths understand that their access to resources hinges on social contracts with their families. Regardless of wiredness, ‘good’ behavior toward other family members is a precondition for resource access: ‘as long as I’m good I get to use it . . . like my dad says I have to keep my nose clean’. Youths in these families must exercise their rights and fulfill their responsibilities in order to maintain their good standing in the family unit and ensure their access to net time. When students neglect their familial duties—not doing chores, picking on siblings, sassing their parents, etc. — parents take away their personal ICT devices as punishment: ‘My mom won’t let me use our computer if I don’t do the laundry’. When students fail to fulfill their family responsibilities, parents take the devices away: ‘. . . one time I kind of got caught playing Angry Birds when I was supposed to be watching my brother — I lost my phone for a week’.

While the ‘rights and responsibilities model’ (Fiske 1991) figures prominently as a way of allocating ICT resources within *all* the families under study, the families differ in terms of how net time is distributed among family members. ICT resource scarcities have consequences for the kinds of social contracts that govern differently wired families. Wiredness has implications for how youths must exercise their rights and fulfill their responsibilities in order to maintain their good standing in the family unit and ensure their access to net time. As this indicates, differences in wiredness translate into three qualitatively different kinds of net time related to familial wiredness: individualized net time in highly wired families, household net time in partially wired families, and extra-household net time in unwired families. It should be noted that both partially and unwired families may have internet access that fluctuates over time in response to family finances.

Individualized net time occurs in highly wired families in which there are multiple personal devices with which to access the internet. In highly wired families, youth experience individualized net time such that individual members do not need to jockey for material access. By contrast, household net time is found in partially wired families in which digital devices must be shared. Youths in partially wired families depend on shared devices such that net time is pooled within the family unit. In these families, household net time means that home internet access is a scarcer resource. Finally, youths dependent on extra-household net time come from unwired families, who have no internet access in the home via any digital device. These youth rely on the school, library, and third places to obtain internet access.

In the analysis, we examine each of the social contracts that governs the distribution of net time and corresponds to these three types of wiredness. In each case, we show how particular forms of wiredness are linked to familial

negotiations concerning ICT resources and net time. We demonstrate that each of the three types relies on distinctive understandings of rights and responsibilities of family members. Our analysis concludes with a discussion of the relationship between familial social contracts, wiredness, and forms of the information habitus that encourage capital-enhancing activities.

Individualized net time in highly wired families

Members of highly wired families typically possess both smartphones with generous data packages and a personal computer, usually a laptop. While youths in highly wired families benefit from individualized net time, most do not own the devices; rather, they are 'on loan' from their parents.³ Because they do not own the devices, youths from highly wired families understand that their individualized net time is contingent on a variety of good behaviors indicating stewardship. Youth enjoying individualized net time understand that they should act as stewards of these gifted family resources. Should they fail to act as good stewards, their parents can and will repossess the equipment.

As far as net time is concerned, youth from highly wired families treat their individualized net time as a privilege to be earned and maintained through appropriate use of net time: '... the time I can spend on the home computer ... [is] a privilege to have in my household and it is considered something to be earned'. In these families, children must indicate that they prioritize appropriate net time for capital-enhancing activities such as schoolwork, learning skills, and searching for information on colleges, jobs, and/or careers. As Ignacio recounts:

My parents got me a laptop to do projects for school, so that's what I use it for ... I can do fun things once my work is done – but work is first and I want to be honest with my dad if he asks.

With individualized net time, online recreational activities are not off-limits as long as students can demonstrate that they have completed all their school and family-related tasks first. Cindy reports, 'I can use my iPad as much as I want as long as I get my homework done first'.

When they fail to follow the rule to prioritize capital-enhancing activities, youth from highly wired families are typically denied their individualized net time on one or more devices. Celia says, 'I kinda got caught on MySpace when I told my mom I was looking up colleges ... not a good idea ... lost my laptop on that one'. Further, even after getting her laptop back, Celia must earn her mother's trust again. After the 'incident', her mother increased her monitoring activities and demanded that Celia use her laptop in the kitchen so that her net time activities would be visible to the mother. Leandro

reveals, 'If my mom catches me on Facebook when my homework isn't done, she'll take away the computer . . . so I always do Facebook right before bedtime'. Aware that engaging in inappropriate use puts their net time in jeopardy, these youths are highly motivated to exercise self-control online.

More specifically, the autonomy accompanying individualized net time also requires these students to engage in active 'self-policing' (Horst 2010). As long as they continue to be good stewards, many are permitted to use their computers in the privacy of their own rooms rather than in family spaces within the family dwelling. Yet to stay on track even when out of parental range, they must develop the ability to exercise self-discipline during their net time. Setting his sights on the Air Force Academy, Taylor started pulling 'all-nighters' his freshmen year of high school and continues to dedicate a significant portion of his free time to academic work: ' . . . looked at my goals and decided that Facebook was getting in the way so I deleted my profile so that I wouldn't waste the time that I need to earn straight As'.

Finally, honoring trust and familial sacrifices spur students' use of individualized net time for capital-enhancing activities. Rosalina states, 'I would have a total guilt trip if my parents thought I was taking advantage . . .' In several cases, these students feel obliged to maintain appropriate use to honor the social contract between them and their parents. This is especially true of the youths who acknowledged the sacrifices that their parents make in order to earn the money to give them computers. As Tim expresses, 'My parents worked really hard to give me a computer . . . I'd feel like I was letting them down if I only used it for Facebook'.

Household net time in partially wired families

Youths from partially wired families must avail themselves of household net time via resources owned and consumed collectively rather than individually. Such shared resources usually include desktop computers and printers, but more rarely include laptops and even smartphones. These resources are often located in common areas of the family home, typically in the living room and cannot be moved to the adolescents' own rooms (Tripp 2011).

The majority of high school students from partially wired families report sharing these resources with parents and/or several school-age siblings on a daily basis. It was not unheard of for some partially wired families to have up to seven or eight people sharing a single computer. Tim confronts 'crowd control' issues because his family's desktop computer sits in the living room: ' . . . like a zoo in there . . . always someone on the computer . . . lucky if I get half an hour to myself'. He finds it trying to 'always' have to 'wait for one of *them* to finish'. Resource bottlenecks also manifest themselves in partially wired families with fewer users and fewer demands on ICT resources. Felicia

has two older siblings working their way through college who need to use the family computer after dinner: 'I know they need it so I do my best ... but sometimes it's hard ... that's when I need to do my homework ...'.

Youths in capital-enhancing families generally respect other family members' right to their share of household net time. This is particularly true when the parents need to access family computers in order to carry out paid work to support the family. As Sam explains: 'The computer in my house is mainly for my dad's business, so I have to wait until he's done, which usually takes a while because he's a graphic designer'. Most of the youths who must who compete for their share of household net time with other school-age siblings acknowledge that in principle others have as much of a claim on household net time as they do. Ana concedes her sisters' right to household net time when they need the computer for their school assignments, as long as they don't 'hog the computer'.

In partially wired families, youths constantly scrutinize others' net activities to make sure that their goodwill is being reciprocated. Given the scarcity of household net time, these youths must take precautions ensuring that other family members do not become 'net hogs' or 'computer hogs'. To make sure that her sister does not deprive her of a fair share of household net time, Sue-Anne constantly scrutinizes her co-user's net time and activities: '... she might not mean to do it ... but every so often she just happens to forget the time ... it's just best to keep an eye out'. Youths from partially wired families must both engage in straightforward negotiations and adopt secondary strategies to ensure that turn-taking is honored. Determined to safeguard his right to household net time and ensure that others are not abusing their turns, Jessie stakes his claims: 'Sometimes I'll just say "hey, watcha doin"? I think it's my turn, yeah?' ... other times I kinda hover [near the computer] to let them know that I'm watching ... they know that I know ...'.

Tensions run high in Ophelia's family when her younger brother fails to honor the turn-taking rules. She describes getting into daily conflicts with him when he will not surrender the family's desktop: 'He squeals like such a pig when I try to pry his hands off the keyboard ... my mom has to bribe him with the TV to get him off'. For Ophelia this conflict is especially troubling because it impinges on her ability to do her schoolwork: '... ok if I'm just checkin' my email that's one thing ... but my physics homework is another'. Other youth from partially wired families also report that conflict over household net time could result in moral outrage requiring parental intervention. The day before an essay was due, Bobbie recalls waiting for his father to finish using the computer, all the time assuming that his brother was using the family's single smartphone for schoolwork: 'When I realized that the little twerp was playing Farmville I lost it – I mean lost it ... I mean he knew the rules and he knew he was breaking them ...'. Although his dad rectified the situation, Bobbie smoldes: '... there is not enough [net time] to go around and there he was smirking and using it [smartphone] for Farmville! I

coulda at least used the phone to go on [website] for my paper!'. When turn-taking violations impinge on capital-enhancing activities, parents routinely get involved. In Alex's case, punishments ensue: '... busted ... if I tell my mom my sister is just on YouTube again and I got my homework to do [online], then she is like bus-ted'.

Members of partially wired families draw attention to two criteria to determine appropriate use: (1) the amount of household net time the user could legitimately claim as a 'fair share' and (2) the kinds of tasks that the user needs to accomplish. Significantly, in capital-enhancing families, egalitarian allocation of household net time may be altered in light of the family members' discrepant needs to pursue capital-enhancing activities. While a few families hew very closely to the 'equality matching model' (Fiske 1991) no matter the circumstances of the family members, most afford family members considerable leeway when they face exigent circumstances such as imminent deadlines for school, work, or scholarship/college applications. In such cases, familial negotiations determine who will relinquish their share of household net time and who will receive extra net time. For example, in Adam's family, his scholarship application needs trumped the relatively less important needs of other family members: 'My apps were like due the next day so everyone said, "OK Adam – you take as long as you need – even if it's all night just get it done"'.

In order for partially wired family members to determine members' relative need for additional household net time, they must differentiate between more and less appropriate activities. Capital-enhancing activities get top priority net time: school, paid work, or college and career planning. By contrast, any hint of recreation makes such activities inappropriate use of net time. Natalia recalls: 'I won't even ask to check my email if my mom is on a deadline for work'. Here we also see an honor code at play that manifests itself in self-disciplining. For Gabriel, '... you know their stuff is important too ... so okay maybe you don't get to do everything you want ... but hey you just gotta suck it up ...'.

Extra-household net time in unwired families

Unwired families do not have internet access at home in any form. They lack both computers and smartphones. Regina explains: 'My phone is super old and isn't even that good for texting'. For Phil: 'When I need a computer to write an essay, I have to go to school and ask if I can use the computer – it really bites'. Families like Miguel's have fewer resources now than in the past: 'I do not have a computer at home anymore. I need one to do my work and research things online for school'. Paralleling their more wired counterparts, unwired families allocate extra-household net time to family members according to an implicit social contract. These social contract govern the distribution

of temporal and transportation resources that facilitate extra-household net time.

In these families, the only way to get net time is to obtain it outside of the home. Confronting severe resource scarcities, unwired family members must act collectively to pool transportation resources to enable family members to travel to access points. Tamira's parents voluntarily give up a share of the family's scarce transportation resources to help their children: 'My parents can't afford a computer so they try to help us in other ways when they know we have a big assignment...like giving me a ride'. Gracie also relies on her father to drive her to the library for her to work on her assignments on library computers: 'My dad takes me to the library and waits for me in the car.' Yet even if they gladly provide transportation resources, this effort drains unwired families' store of temporal resources.

Even when unwired families can provide transportation, the extra time that this trip consumes means having to secure a 'release' from other duties. For Belinda: 'Sometimes my sister will get my little brothers ready in the morning without me so that I can get to school early and use the computers in Mrs. Schrempf's room'. Lucy typically cooks dinner for her family and watches her younger siblings after school; she must lobby her parents for time off so that she can take herself to the community center in the afternoons where there is free internet access: '... it's not like they [parents] don't want me to go but they have to be at work so we have to work something out'. To use the school computer lab, Gino must ask his brother to 'cover him' at work: 'If I want to use the lab I have to ask my brother to take my shift'.

Unwired family members must make personal sacrifices for these students to have the opportunity to acquire extra-household net time. Significantly, parents and siblings transfer temporal and transportation resources only for worthy activities such as schoolwork and college and career planning. Resources are simply too precious to waste them for frivolous pursuits such as entertainment: 'I only ask if I really really need a ride for something huge – like when CSU [college] applications were due'. For many of these students it would be unthinkable to ask for special privileges simply for recreational purposes: '... when I get time to go to the lab it is for school ... not Facebook nonsense'. Because other family members must sacrifice their own precious share of compensatory resources, the social contract assumes even greater importance in unwired families. Even in the best of difficult circumstances, unwired families are continually robbing from Peter to pay Paul. Although they can 'work something out', they are forever engaging in triage and swapping out one scarce resource for another.

Discussion and conclusions

The article enriches our understanding of how net time is evaluated as appropriate and thereby allocated within families who prioritize capital-enhancing

activities. We show how net time, as a crucial family good, is distributed in three particular resource situations. Our findings reveal the outlines of three distinct kinds of net time: individualized net time, household net time, and extra household net time. Each of these three forms of net time is regulated by distinctive familial social contracts. Whether between parents and children or between siblings, in each of these social contracts, use of ICT resources for worthy purposes (schoolwork or paid work) is distinguished from use of ICT resources for unworthy purposes (entertainment or recreation).

The article foregrounds the role of rules and social contracts within families. However, these social contracts operate in different ways. In the case of individualized net time, the key ingredient is trust between parents and self-disciplining youths who control their own ICT devices. Although students from all families internalize a sense of duty to use ICTs for capital-enhancing activities, students from highly wired families must self-regulate given their greater autonomy. In the case of household net time, coordination and conflict between family members emerge as the key dynamic that structures access to ICT resources within the family. Members of partially wired families engage in triage to cede resources to those who need them the most. Finally, where extra-household net time is concerned, access to these resources is purchased with the coin of familial sacrifice. Members of the most disadvantaged of the wired families relinquish slim resources to bolster students' opportunities for capital-enhancing ICT use. Here, an intergenerational 'gift economy' (Komter 2005) comes into play in which the parents surrender their own time and financial resources so that their children can gain net time outside the home for worthy purposes.

These findings deepen and enrich the research undertaken by Horst (2010) and Tripp (2011) regarding the ways that families regulate access to ICT resources. First of all, it introduces a new analytical dimension by bringing into focus the distinct forms of resource possession and consumption that characterize differently wired families. It further reveals how these specific forms of resource possession and appropriation relate to levels of wiredness, as well as intergenerational and intragenerational social contracts within the family. By bringing a rich account of intra-family dynamics to bear on these questions of resource allocation, we demonstrate that the organization of the family system impacts the evaluation and allocation of net time.

While prior research has taken the initial steps toward understanding how ICTs impact family relations, this paper highlights how families' social contracts impact ICT use. This article can therefore be seen as an effort to cast light on the underexplored part of the bidirectional familial 'domestication process' in which family relations influence ICT usage patterns, and ICT usage patterns alter family relations (Mesch 2006; Christensen 2009). While substantial research has illuminated the ways that the presence and availability of ICT resources affects family solidarity and connectedness, very little research has uncovered how familial rules and contracts regulate ICT usage among different family members. In

particular, the nature of the social contracts orchestrating ICT usage and net time among high school students has largely escaped attention from scholars of new media and family dynamics alike. The present inquiry, by contrast, reveals the kinds of familial negotiations influencing the allocation of net time within highly wired, partially wired, and unwired families.

The article also contributes to the literature on digital inequalities. Studies (van Dijk 2005; Hargittai & Hinnant 2008) have pinpointed users' access conditions, especially their degree of usage autonomy, as significant predictors of their usage practices and even skill levels. The article brings to light how wiredness intersects with the rights and responsibilities model of family relations to generate distinctive patterns of access and usage among high school students. Here the study broadens and deepens our understanding of the information habitus (Robinson 2009) by showing how the information habitus plays an important role in regulating how family members manage their ICT use. When families attribute meanings to students' ICT engagements, these engagements are transformed into relational achievements with power to shape behaviors. Comparing families with different ICT resources shows that the familial information habitus may be more important than access to resources that are not accompanied by family contexts encouraging capital-enhancing activities.

The study foregrounds the role of rules and social contracts within differently wired families that privilege capital-enhancing activities. Inasmuch as they concern negotiations over ICT usage within these families, the findings are particularly relevant to the information habitus. Previous research has pointed to the effects of habitus mismatches between family members as potential sources of strife and discord in families where ICT access is constantly negotiated (Lee & Chae 2007; Tripp 2011). However, the findings from this study show that these mismatches come into play differently, depending on the ways that net time is appropriated within families. Here, the article shows how mismatches in the information habitus of particular family members can provoke different levels and kinds of conflict. When net time is appropriated on an individualized basis, rather than being shared amongst the household members, such mismatches matter less. Youths, who enjoy individualized access can afford, up to a point, to use the ICT resources for recreational purposes without scrutiny from other members of the family. However, when net time is appropriated on a household basis, then such mismatches matter more. If one sibling is less committed than another sibling to using the ICT resources for capital-enhancing activities, for example, then this mismatch in the siblings' information habitus can become a source of strain between the two children as they bargain over dividing up this communal resource.

Finally, this article takes several steps forward. First, it elucidates the implicit intra-family contracts that govern ICT use. Second, it unearths the profoundly social processes of bargaining, negotiation, cooperation, and competition that shape ICT usage practices within the family. Third, it makes clear that access

to ICT resources alone cannot predict the use of ICTs for capital-enhancing activities. However, our findings call for further study and investigation. For example, additional study is needed to find out how these different ways of appropriating ICT resources work in families, where different styles of negotiation, bargaining, and cooperation prevail. It would also be valuable to learn, what kinds of effects more or less authoritarian modes of control within families have on the ways that youths access and use the family's ICT resources. Answering these questions will enrich our understanding of net time in one of the most consequential arenas for social interaction and socialization: the family.

Notes

- 1 Huang and Russell (2006) find a positive association between increased test scores and computer accessibility. Lee and Chae (2007) find that active parental involvement leads to their children using the internet for educational purposes. They argue that when parents go online with their children and direct their children's website visits, children are more likely to use the internet for capital-enhancing activities. By contrast, children with parents who merely implement rules such as time limits do not engage in greater educational web use.
- 2 While we are particularly interested in digital inequalities, the majority of literature on networked families has not examined the full spectrum of wiredness. While valuable, much of this growing body of literature seeks to ascertain the positive and negative impacts of ICTs on highly wired families in terms of family connectedness, family time, and familial well-being. Many middle-class families report that digital technologies are enabling increased family connectedness via the internet and cell phone (Kennedy *et al.* 2008). While this study shows that family time together may decrease, there is a corresponding surge in connectedness between parents and children on a daily basis via cellphone (Christensen 2009). One reason for the increased connectedness is the increased need to use digital media to organize family activities (Lanigan *et al.* 2009) and for familial coordination (Rainie & Wellman 2012). 'Netting together' (Rainie & Wellman 2012) bonds families through mutual interests or shared activities (Lanigan *et al.* 2009; Flanagin & Metzger 2010). From this angle, while families are increasingly spatially separated, they are increasingly digitally connected both when physically apart and when netting together.
- 3 The handful of students who own these devices themselves have secured the money to purchase them in one of two ways: either they save money they earn from part-time jobs or they save money

they receive from birthdays and other celebrations. Interestingly, the students who have bought their devices with money earned from work feel entitled to use the equipment as they wish and report less interference from their parents when it comes to using the devices than students who saved up money from gifts. Nevertheless, even the students who bought the computer with money they earned themselves did experience some parental oversight: as one student recalled, ‘There was one term where I got bad grades and my mom thought it was because I was spending too much time on Facebook. It was really bad – she confiscated my computer for a couple of weeks, even though I bought it with my own money. She said, “So are you eighteen yet? Didn’t think so. My house, my rules”’.

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