

Parental Status and Cell Phone Ownership and Usage: A Systematic Analysis

Abstract: Recent studies reveal that the income inequity found for the traditional digital divide for computers and internet access and usage, is actually less extreme with cell phones. It suggests that factors of social connectedness have increased the value proposition of investing in a cell phone among the economically poor. Using data from a national survey of cell phone usage, this paper examines whether or not parental status (as a proxy for social connectedness) increases the probability of cell phone ownership among low-income respondents and also increases the probability of being an advanced cell phone user over a conventional cell phone user. The results of the study show that parental status is not a good predictor of owning a cell phone, or predicting type of usage, and that income and age are still the strongest predictors of ownership and usage. This paper then explores how the insignificant results may be due to mis-sampling of low-income respondents. A further examination of how material inequality relates to digital poverty and social connectedness is strongly urged for cell phones.

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INTRODUCTION

The most current studies reveal that the income inequity found for the traditional digital divide in computer and internet access and usage is actually less extreme with cell phones (Katz 2006, Pew 2006a).¹ Researchers speculate that cell phones have made more of an impact as an equalizer because of its affordability over desktop computers or laptops (Katz 2002). Recent policy changes in the telecommunication industry, diffusion of cell phone technology, and decrease in the costs of cell phone plans have made cell phones accessible even for the low-income. The value proposition of investing in a cell phone has clearly cut across incomes lines. Therefore, we have an opportunity with cell phones, that we have not had before with computers, to examine ownership across income strata. We need to examine how digital inequity is changing the dynamics of how communication is maintained and facilitated, especially among those who have been traditionally excluded from unaffordable digital technology, like computers.

Studies attribute the decline of the digital divide for cell phones, to the utilitarian role it fulfills in increasing social connectedness, like constant offline-computer social support (Ling 2004). For example, a recent study on Japanese stay-at-home mothers reveal that they consider computer use at home an inconvenience, but cell phone use at home an advantage; using it as a way to stay in touch with their children and husband (Dobashi 2005).² This study, along with the most recent data on the digital divide, suggest that cell phones may have more potential than computers to equalize the digital divide because it offers more opportunities for social connectedness. But to date, there are no quantitative or qualitative studies to measure this across income strata, or even looking at cell phone ownership as it relates to income, in the United States.

¹ Cell phones have penetrated groups that have been consistently the largest groups of non-internet users: older Americans and Spanish-speakers (Pew 2006b).

² The affordability of cell phones makes them more accessible than computers, but it is also the "mobileness" of the phone that makes it more utilitarian.

Plenty of studies show how the digital divide in access and ownership of information technology (IT) reproduces real world stratification. Digital inequity creates a new class of “information haves and have-nots” (Sullivan 2002b, Shields 1998, Wresch 1996). The “haves” are those with the most power to affect changes in social structures, such as IT policy, market decisions and they also have the digital tools to create and maintain social networks. Without access to these same digital tools, the have-nots are the “4th class” or the invisible class, where they experience a compounded exclusion that renders them physically and virtually invisible (Mason and Hacker 2003, Castells 2004). However, the ubiquity of cell phone ownership tells a different story, since it is the one IT that has penetrated gender, race and class barriers, more than the Internet has been able to (Dimaggio 2004, Dijik 2005, Pew 2006a, O’Hara 2006, Katz 2002).³ Yet, there is no empirical data to prioritize types of new practices with cell phones and social networks in marginalized communities. The penetration of cell phones gives us the opportunity for a nuanced analysis of the digital divide beyond a simple measure of ownership.

Using data from a national survey of cell phone usage, this paper examines whether or not parental status (as a proxy for social connectedness) increases the probability of cell phone ownership across income strata (particularly the low-income strata), and also increases the probability of being an advanced cell phone user over a conventional cell phone user. By examining how the scope of cell phone usage (conventional or advanced) varies depending on a respondent’s background, the latter question better uncovers how digital inequity cannot be reduced to a simple ownership versus non-ownership measurement; as ownership does not necessarily correlate to digital equality. My previous findings established that cell phone ownership was highly

³ Blacks and Latinos have the lowest incomes in the US; therefore the digital divide is highly racialized at the same time (Norris 2001). This signals dire consequences for groups who do not even have the income to participate in the first place (Carrier 1998).

dependent on income, but did not examine how this varied depending on other factors such as family relationships (Wang 2007). I hypothesize that low-income parents, will be more likely to own a cell phone than low-income non-parents. Considering how parental status changes how income may predict access to digital technology adds another dimension to the argument that the digital divide is based only on economic stratification. We can explore how social connectedness contributes to a possible lessening of the divide with mobile technologies.

LITERATURE REVIEW

Literature on the digital divide show that access to and ownership of IT is incredibly stratified along class lines; the upper- and middle-classes have higher chances to afford IT, while the poor have lower chances. Those who cannot afford computers and internet access, are excluded from vital information. Digital exclusion leads to digital invisibility; real world socio-economic stratifications are compounded and the poor find themselves more isolated, with fewer alternatives to access information and create or maintain social networks. Digital communication plays an even more critical social role in The Network Society, where relationships are based on nodes, virtual movement—social networks that span multiples places (Castells 2000).

However, much of current literature on technology and society, cloud an objective examination of technology as its relates to how low-income people actually use it. The literature tends to be overly objective or subjective, at the expense of a nuanced analysis of the transformative intersection of technology and practice. Social scientists have polarized views in which direction the social transformation of digital technology is leaning towards. There are two sides to this argument: one argues that technology is detrimentally fragmenting society (Postman 1992, Putnam 2000, Wellman 1999), the other side contends that technology magically connects society (Benkler 2006,

Greenfield 2006, Reingold 2002). Within the latter group are those who will go as far to assume that technology itself can level out real income inequality (Negreponete 1995, Hardt et al 2001). Unfortunately, both sides are technologically deterministic and symptomatic, and in consequence neglect the socio-material context of information technology (Williams 1975). The polar views of technology's roles in society as either atomizing or magically connecting, overlook the material conditions and practices that the specific technology is situated within. It is particularly important to avoid overly simplistic or deterministic approaches in examining how digital inequity is associated with economic inequity. We still know very little about how the combination of digital inequity and income inequity in the US determines life chances (Attewell 2004, Autor 1998, Dimaggio 2001). There are many factors that contribute to or compound income inequity. Therefore, isolating technology as the solution or culprit overlooks the complexity of stratification itself.

Unfortunately, much of existing cell phones studies follow in the footsteps of the currently polarizing views of technology in society. Cell phone studies are either technology deterministic or symptomatic; usually leaning on the technologically deterministic side, where researchers focus on how cell phones are changing people or culture; instead of a socially constructivist view, where they focus how people's use or nonuse of cell phone changes depending on their material conditions (Reingold 2002, Benkler 2006). This latter perspective follows in the tradition of Claude Fischer's groundbreaking work on the social construction of telephones in America. His social constructivist approach opened up an examination of the political economy of cell phones, where "social content, purpose and ramifications" overrode the novelty of the technology itself (1992, Sussman 1997). His research demonstrated that the original intended commercial uses of the telephone, were outweighed by the actual socially non-commercial uses of the telephone for maintaining existing social networks. Building on

his work, we need to situate cell phones beyond its intended uses, and understand it for its actual current social uses by various communities, particularly the ones who have been traditionally excluded from digital participation.

Despite the paucity of research on cell phones, there are several insightful analyses that have indicated that people are using cell phones to maintain close social networks, like parents maintaining communication with their children (Leonardi et al 2006, Levinson 2004 Ling 2002, 2001a, Rakow 1992), Dobashi 2005).⁴ Yet, their analyses only focus on middle- to upper-class communities. By excluding the experiences of low-income families, several of these researchers make empirically specious claims that new portable technologies are capable of erasing the digital divide (Negreponete 1995, Hardt et al 2001). They fail to see that ownership of cell phones may still be rooted in stratification, and produce or enforce existing stratification in its enacted social application.

Overall, the growing literature on the digital divide, overwhelmingly measure the divide based on usage and access to internet and computers. There is little to no acknowledgment of other information technologies. Since the ubiquity of cell phone ownership over computer ownership cuts across class, age brackets and gender in the US, we have an opportunity to analyze the digital divide from a difference perspective, one that is beyond ownership or non-ownership (Pew 2006a). We need to better understand two seemingly countervailing trends, the first being an increase in cell phone ownership among all income, and two being that the digital divide in access and ownership of non-portable information technology (computers) is deepening along income, as opposed to gender or race (Castells 2004, Dimaggio 2004, Dijk 2005, Pew 2006a, O'Hara 2006, Katz 2002).⁵ This paper will examine if income is still a strong

⁴ These findings are consistent with research that shows the internet is used to maintain close social networks (Dijk 2005).

⁵ Blacks and Latinos have the lowest incomes in the US; therefore the digital divide is highly racialized at the same time (Norris 2001). This signals dire consequences for groups who do not

predictor of cell phone ownership, and if social connectedness is a possible explanation for the increased value proposition of cell phone ownership even among the poor. This paper therefore examines if low-income parents are more likely than low-income non-parents to own a cell phone, and how type of usage for high-income versus low-income parents.⁶

METHOD

Survey Sample: To test my hypothesis, I utilize data from a national survey fielded in March 8-28, 2006 by the Pew Research Center for the People and the Press, in association with The Pew Internet & American Life Project, the Associated Press, and AOL. A nationally representative random dial method was used to select 1,503 U.S. adults above the age of 18 years old. The investigators divided the sampled population into two groups: (1) 752 were interviewed on their landlines and (2) 751 were interviewed on their cell phones. Applying demographic weighting parameters calculated from the U.S. Census Bureau's 2005 Current Population Survey, the weighted data was concurrently reiterated with estimates of up-to-date patterns of telephone status in the US that balanced the distribution of weighting parameters. When appropriately weighted, the survey participants represent a reasonably representative cross-section of Americans 18 years of age or older.

The survey sampled 1,503 adults in two groups. The first group (N=752), were surveyed on their landlines. Interviews with this subset of respondents provide the most unbiased sample of determining cell phone ownership. The second group (N=753), were conducted on their cell phones; therefore for the purposes of this study, this is not an unbiased selection of the population.

even have the income to participate in the first place (Carrier 1998).

⁶ From my experience working with families and their children in the South Bronx, one of the lowest-income communities in New York City, I noticed that parents were likely to own a personal cell phone and invest in one for each of their older children. Therefore, despite being low-income, I noticed parents were more likely to own a cell phone.

I ran a multi-nomial logit regression to test my hypothesis. I created a trichotomous variable by creating a categorical variable with three values. The first value are non-cell phone owners, then the second value are conventional cell phone owners and the third value are advanced cell phone owners. Conventional users own a cell phone and use it to place voice calls. Advanced users also own a cell phone and place voice calls, but in addition, they have a wider scope of usage, like checking e-mail or taking pictures with the cell phone. In both regressions, I use the same independent variables of income, age, education, parental status and marital status. I chose to include marital status as an additional proxy for social connectedness. Income is the respondent's annual household income for 2005 and I recoded it according to each interval's midpoints that reflect a range from \$5,000 to \$175,000, and then recoded it in ten thousands. Age is a continuous variable measured in years. Education is an ordinal variable. My proxies for social connectedness, parental and marital status, are both dummy variables. For respondents who answered "yes" for parental status, this means they have a child living with them who is under the age of 18 years old. The variable frequencies are located in the Appendix.

RESULTS

Table 1 shows the results from the multi-nomial logit regression with the polytomous dependent variable.⁷ In the first contrast, income is the strongest variable, followed by age, as predictors of the probability of respondents being a conventional cell

⁷ I concluded that the unrestricted logit regression was the best model for this analysis. In this multinomial logit. When I restricted all the coefficients belonging to the same independent variable to be the same across each contrast, the change in Chi-Squared was statistically significant. therefore restricting the fit changes it significantly, and I concluded that we cannot collapse the categories in this way unless we make radical changes to them. The change in Chi-Squared value is 186.83 and is significant at the .001 level. There is a loss of 5 degrees of freedom. The results are in the Appendix, figure

user as opposed to be a non-user. The rest of the variables are insignificant. In the second contrast, age replaces income as the strongest variable. On both contrasts, income has a positive effect on while age has a negative in predicting the probability of the dependent variable.

Table 1: Results from Multivariate Logit Unrestricted Model (N=1246), Pew 2006				
	variable	Coefficient	b/Std. Error	P
Prob [Y=1]	Constant	0.885	2.164	.305
	IncomeX	0.217	5.295	.000
	Age	-0.020	-3.738	.002
	Edu	0.070	0.805	.421
	Parent	0.116	0.485	.628
	Marital	0.160	0.776	.436
Prob [Y=2]	Constant	3.090	7.366	.000
	IncomeX	0.288	6.855	.000
	Age	-0.074	-11.441	.000
	Edu	0.004	.051	.960
	Parent	0.271	1.117	.264
	Marital	-0.243	-1.081	.280
Log Likelihood: -1064.826		Chi-squared: 347.611 dF: 10		

For the first contrast, Prob(Y=1), income and age are the strongest predictors and are also the only statistically significant variables in predicting the dependent variable. As we move to the coefficients for Prob(Y=2), income and age make an even larger improvement as predictors of the dependent variable. Age makes the largest improvement in its negative relationship to the dependent variable, increasing its z from -3.738 in the first contrast, to -11.441 in the second contrast. Education, parental status and marital status remain statistically insignificant in the first and second contrast. The Chi-Square for this model is 347.611. To get a better idea of this fit, I calculated the McFadden Pseudo-R² and Maddala Pseudo-R². Roughly speaking, this model explains 21.8% in variation of this trichotomous dependent variable, but we do not know the significance of this value.

In this analysis, I am interested in the effect of being a parent for low-income respondents. Specifically, I want to examine how much their probability of being in higher category of increases by being a parent. To test this, I chose to work with average variables for the other independent variables (age=44 years, marriage=1 no, edu=3 went to college). For low-income, I am using \$25,000 for annual family income (income=2). For the first contrast, there is only a 2% chance for low-income parents over non-parents to be a conventional cell user than a non-cell user. There is a 10% chance to be an advanced cell user than a non-cell user. I then calculated this for those with higher incomes. I used \$63,00 as my marker for higher incomes. For the first contrast, there was a 0.7% chance for higher-income parents over non-parents to be a conventional cell user than a non-cell user. For the second contrast, there was a 4.2% chance for higher-income parents over non-parents to be an advanced cell user than a non-cell user. The results and calculations are below.

	low-income			higher-income		
	non-parent	parent	% increase	non-parent	parent	% increase
conventional cell user (Y=1)	69.1%	71.6%	2%	84.2%	84.9%	0.7%
advanced cell user(Y=2)	50.4%	60.5%	10%	78.7%	82.9%	4.2%

Overall, my analysis shows that income and age are the strongest predictors of ownership and type of usage, and that there is a negligible change in probability of low-income parents versus high-income parents to own a cell phone and to be a advanced user over a conventional user.

IMPLICATIONS

My hypothesis that parental status, as a proxy for social connectedness, would increase the chances of ownership and type of usage, was not confirmed in this

analyses. I originally arrived at my hypothesis because parents tend to have a greater need to access additional external resources. In this case, by situating cell phones within Bourdieuan concepts of social and cultural capital, cell phones may function as a technology that even lower-income parents find necessary to access and maintain socio-cultural capital. In exploring my hypothesis with the Pew study, my findings in this paper lead to several implications: that income still plays a large role in access to cell phone ownership; ownership may reproduce and enforce real world socio-economic stratification; income plays a large role in the type of usage; and that being a parent may not increase the probability of owning a cell phone for low-income respondents nor does it increase the chances for being an advanced user over a conventional user.

Despite recent cell phone ownership penetration across income, the figures in Table 1 show that ownership of cell phones are still rooted in stratification, as income is still a significant predictor in ownership and usage. I originally hypothesized that low-income parents challenge the digital divide because being a parent—regardless of income level—results in a prioritizing of communication with their children through cell phones. But from the analysis presented in Table 2, parental status does not significantly change the probability in ownership among low-income parents, and type of usage does not change depending on income for parents.

Even more significant than income, age was the strongest predictor of the dependent variable. There is possible room for misrepresentative sampling of age. Since older people tend to have landlines, and the survey drew half their sample from landline owners, the respondents interviewed on their landline may have been older than the respondents interviewed on their cell phones. We do see in that the average age of the landline respondents was 55 years of age, while the average age of the cell [hone respondents was 35 years of age. Additional misrepresentation in age may also have

been compounded by an overall trend in increased age of parenthood.⁸ However, when we break this down by class, the age of parents who are low-income has not increased at the rate as middle- to upper-class parents. In addition, low-income families tend to have more children than middle- and upper-class parents (US Census 2000).⁹ Even though there is possible for over sampling in older respondents due to half of the interviews were conducted online, and that parents also tend to be older, the methodology of logistical regressions used in this analysis corrects for possible over sampling by giving probabilities.

Another speculation is that parents are usually older, therefore they may have more income to invest in a cell phones. But the data from Table 1, show that age has the strongest negative effect: every year a respondent ages, the respondent is at a -0.020 point disadvantage in their log likelihood of being a conventional cell user, and the respondent is at even a greater -0.074 point disadvantage in their log likelihood of being a advanced cell user. There are two possible explanations for the significant negative age coefficient: life-cycle effect and cohort effect of age. Cell phone ownership and usage may have a life-cycle effect in that as people age, they may decrease their chances of trying new technology, because people tend to work less or have less time-demanding jobs as they age. The most current research confirms the life-cycle effect of age with cell phones; younger people and the currently employed are more likely to invest in a cell phone (Pew 2006b).

The second possible explanation for the strong age effect is that cell phone ownership and usage is experienced as a cohort effect. The introduction of a new technology among a cohort may influence how that cohort interacts with newer technology for the rest of their lives. There is an abundance of research confirming the

⁸ In addition, the mean age for parents and non-parents was a negligible difference (mean of non-parents = 42, mean age of parents = 45). Therefore, we can safely conclude that the sample did not over sample older parents or younger parents.

⁹ I had hypothesized that factors of parenthood would contribute to an increased probability in ownership and type of usage among low-income parents.

cohort effect for computer and internet usage. For example, the internet was introduced in the 1990's, therefore for cohorts forty years of age and younger tend to be more comfortable with using digital technology. However, the most recent studies show that cell phones are unique in that they have made more of impact in penetrating age brackets than any other digital communication technology (Pew 2006a). We can also speculate there is an interaction of life-cycle and cohort effect of age, for example a generation that experiences the cohort effect of new technology also experiences the life-cycle effect. However, additional longitudinal studies would be needed in order to further explore these factors.

Although my findings show that parental status does not increase the chances of owning a cell phone or becoming an advanced cell user among the low-income, I believe the surveyors did not ask specific questions about social connectedness around parenthood, nor did they take into consideration how low-income individuals obtain a phone. As a result, there was not a high change in probability for a low-income parent over a low-income non-parent to own a cell phone or be an advanced user over a conventional user.

In terms of questions about parenthood, additional clarification on their parental status would have given us a better understanding of the dimensions of social connectedness. For example, follow up questions to discover if a respondent is a single-parent should have been asked. This information would clarify family income, because a two-parent household may have different communication needs or greater disposable incomes, than a one-parent household. A high-income single-parent varies greatly from a low-income two-parent household. Even for the one-parent household, additional questions could have asked if they receive child support and if their child lives with them full-time or part-time. For example, if a child lives between two parents' houses, is there a greater likelihood of cell phone ownership among the parents and/or the children?

Perhaps being a single parent requires a higher level of social connectedness, as the parent may have a bigger social network to rely on for childcare assistance.

Sampling only respondents with a cell phone contract and not sampling respondents on a pay-as-you-go plan, is an oversight of other methods of cell phone ownership and usage. Lower-income cell phone owners are usually on a pay-as-you go plan, not a contractual phone plan.¹⁰ As a result, they mis-sampled lower-income individuals. could have also sampled cell phone owners who are on a pay-as-you go plan.¹¹ An examination of inequity in cell phone ownership, required an understanding of structural barriers to cell phone ownership based on a contract. For contractual usage, cell phone companies perform a background credit check, and require decent credit standing to qualify for a service contract. Those who are lower-income have a higher chance for a lower credit score, therefore preventing cell phone ownership based on a contract. Therefore, when cell phone ownership is contingent on credit checks and a stable income, the requirements become problematic for low-income individuals. In the US, although cell phones with contracts are typically more affordable than pay-as-you-go cell phone plans, the pay-as-you-go plan is the more realistic method for obtaining a cell phone for low-income individuals.¹²

As a result of the mis-sampling of low-income respondents, we do not see a higher-probability for low-income parents over non-parents to own a cell phone. In addition, without follow-up questions to discern why someone does not own a cell phone, it becomes difficult to find out if it was material barriers, like the credit check or high pricing plan, that prevented ownership. For respondents who answered “no” for cell

¹⁰ The pay-as-you go plan is a flexible plan that allows one to circumvent the credit check and to deposit minutes when money is available, but on the other hand it is not flexible because it does not mean the phone always has enough minutes deposited to be available.

¹¹ The pay-as-you go plan is a flexible plan that allows one to circumvent the credit check and to deposit minutes when money is available, but on the other hand it is not flexible because it does not mean the phone always has enough minutes deposited to be available.

¹² Unfortunately, there is no public data that provides figures for the percentage of cell phone owners on a pay-as-you go plan or a contract plan.

phone ownership, a follow up question should have asked if they ever owned a cell phone before; if so, were they on a contract or pay-as-you go plan. A follow-up question for those who *previously* had a cell phone but no longer currently have one, could have been asked why they terminated their cell phone plan. This critical question for non-owners would highlight those who consciously chose not to own a cell phone because they have a technology-resistant attitude versus those who do not have the material conditions (income, or lack of strong cell signal, or safety concerns) to own one despite wanting to own one. Although this data showed income as a strong predictor, further analysis is needed to explore the complexity of non-ownership to truly isolate income as a barrier to cell phone ownership.

Isolating income as one of the barriers would better inform public telecommunication analysts in determining future cell phone policies. The federal government's change in course from playing an active role in regulating telecommunications since the 1930-50's, when they began subsidizing private companies to build telephone infrastructure in rural parts of America, to an increasingly more private role for wireless technology, has resulted in an unregulated cell phone pricing market (Fischer 1992).¹³ The Telecommunications Act of 1996¹⁴ that broke up landline monopolies and decreased costs of wire-to-wire phone services, has failed to have the same effect on "wireless" technologies (TCA).¹⁵ The wireless industry built a new wireless infrastructure for cell phones with private money and without the public subsidies that were given to telephone wire-to-wire infrastructure. This has resulted in the absence of public regulations to create market conditions for more competitive cell phone pricing plans.

¹³ The US federal government granted AT&T and Bell legal monopoly of the telephone industry because the company agreed to government regulation.

¹⁴ This is the most recent attempt for the government to regulate the telephone industry since the last Communications Act of 1934.

CONCLUSION

In this analysis, contrary to my hypothesis, my findings indicate that there is not a significant change in probability for low-income parents over high-income parents to obtain a cell phone or become an advanced cell phone user.¹⁶ However, I believe these insignificant results are due to a mis-sampling of low-income cell phone users, since most low-income users are not on a contractual cell phone service. Since cell phones have made a greater impact in penetrating the digital divide than computers, the data provides strong support to increase the scope of analysis of digital exclusion to include portable mobile technologies, and to look at how digital exclusion may vary depending on social connectedness. Furthermore, if as argued above, cell phones are a necessary mobile capital that provides access, especially for parents, to socio-cultural capital, unequal access to the technology creates even more unequal access to socio-cultural capital.

Overall, additional information on how the telecommunication practices among the poor maintain or break the traditional notions of the digital divide is needed. As shown from this analysis, ownership does not always correlate to equality; advanced usage of cell phones is still dependent on income. Digital inequity needs to be reframed beyond traditional measures that rely largely upon usage and access to Internet and computers in marginalized communities. As recent data suggests, the digital divide for computers and Internet access and usage, is actually less extreme with mobile

¹⁶ I originally became aware of cell phone practices among low-income communities from my personal experience of working with families and their children for five years in the South Bronx, one of the financially poorest communities in New York City. In developing technology programs for a community based after-school program, I realized that (a) most of the youth and their parent(s)/guardian(s) had cell phones, (b) almost all cell phone owners were on a pay-as-you-go plan), and (c) despite being one of the lowest income communities in the country, almost everyone managed to own a cell phone. I came to these conclusions because my youth were regularly robbed for their cell phones and it was difficult to stay in constant touch with them because they were only reachable when they had enough money deposited into their pay-as-you-go plan. Therefore, despite being low-income and not coming from families who were qualified for contractual cell phone plans, they still managed to own a cell phone and keep it on for periods of time.

technology, but research on digital inequity continues to overlook this critical observation and primarily contextualizes the digital divide within the discourse of Internet access (Pew 2006a). Current scholarship not only overlooks that mobile technology has more potential than the Internet to equalize the digital divide, but also overlooks the ramifications of policy that affects mobile technology. The 1996 Telecommunications Act's free market rationale dismantled landline monopolies to decrease wire-to-wire phone service costs, but it failed to increase competitive cell phone pricing plans in "wireless" technologies. Despite emerging mobile technology data, there is a paucity of public policy research that reviews cell phone ownership; its implications for the digital divide and how low-income communities are retooling mobile devices to negotiate structural barriers. The more we learn about how digital inequality correlates to inequalities in material conditions as it relates to social networks, the better policies can be created to address these concerns.¹⁷ If research can show that lack of digital prescience compounds existing stratifications, then we can show that the digital divide is the *sine qua non* of disenfranchisement.

¹⁷ For future research, my colleague, Leah Muse-Orlinoff, and I plan to conduct a more representative survey sample of low-income and marginalized communities' and their cell phone usage patterns in terms of their social networks. We will specifically respondents if they are on a pay-as-you-go plan or contractual plan. I also think network analysis would be a more compatible method to uncover factors of social connectedness among low-income individual's ownership and usage of cell phones.

Appendix

Results from the First Multinomial Logit: All Variables Restricted Model, (N=1246), Pew		
	Unrestricted model	Restricted model
Log likelihood function	-1065.569	-1158.954
Chi-squared	346.1227	159.353
Degrees of Freedom	10	5

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