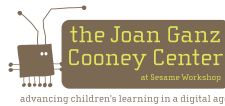


HISPANIC-LATINO FAMILIES



& DIGITAL TECHNOLOGIES



APRENDIENDO JUNTOS (LEARNING TOGETHER):

Synthesis of a cross-sectorial convening on
Hispanic-Latino families and digital technologies

Spring 2013

Sarah E. Vaala, PhD, The Joan Ganz Cooney Center at Sesame Workshop





FOREWORD

Emily Kirkpatrick, National Center for Family Literacy

In June 2012, the National Center for Family Literacy (NCFL) convened the Hispanic-Latino Families and Digital Technologies Forum in partnership with the Joan Ganz Cooney Center at Sesame Workshop and the National Council of La Raza. The Forum brought together some of our nation's best researchers, innovators, thought leaders, and educators dedicated to the vital topic of how, and in which contexts today's Hispanic-Latino families are learning from the rapidly changing innovations in communications technology. This report represents leading thinking and research on the topic, including a synthesis of the convening's discussion.

Hispanic-Latino families in the U.S. face unique challenges and also bring remarkable assets to the nation's evolving education reforms and best practices. Troubling patterns such as high levels of child poverty, low academic achievement, and low college enrollment rates can be reversed, because we also know Hispanic-Latino families have a steadfast commitment to education, multi-dimensional and rich family communication patterns, and powerful intergenerational ties.

At NCFL we are continually working to develop, implement, and improve innovative programs to support and accelerate intergenerational learning among Hispanic-Latino families. This emphasis is critical, as are our collective efforts to merge new technologies with vital learning opportunities. Families participating in our programs across the country are immersed in technology—in the classroom, at home, and in their communities—but we need to know much more to support this learning, and to encourage families and children to be safe and inventive in their exploration and uses of the many new tools available in our digital age.

We are proud to have this critical discussion move forward as a working group named the Aprendiendo Juntos Council. In English this means Learning Together. We think that description is an apt signal of our commitment to jump start essential work. By bringing passionate and leading minds to the table, we can indeed help all of our families learn together.

We invite you to join in the work! Go to www.familit.org/hlfdt for more information and to get involved.



OVERVIEW

In the aggregate, Hispanic families in the United States face unique challenges, including: the highest levels of child poverty in the nation, historically low achievement in traditional schooling, and low college enrollment rates as compared to other racial and ethnic groups. On the other hand, scholars and program experts have also observed that parents of Hispanic-Latino heritage bring unique and exciting resources to their family development practices. Commitment to education is strong, family communication patterns are multi-dimensional and rich, and intergenerational ties are resilient and compelling. We have much to learn about the texture of a diverse and growing community, and only too rarely discuss ways to build from these considerable assets to promote higher achievement and social supports.

While national surveys indicate that Americans of Hispanic-Latino descent are among the highest media consumers, the adoption of digital technologies within Hispanic-Latino families varies widely: low-income families especially face difficult choices about allocating limited financial resources, and early research evidence from studies by the Cooney Center and others indicates that beliefs about family communication and educational priorities are shifting as the digital age hits home. Existing research paints intriguing, but highly preliminary, insights into the conditions under which digital media are adopted and used, the family dynamics which mediate intergenerational transmission of values, as well as quality and equity issues.

To further examine issues related to the role and potential of digital technologies in the lives of Hispanic-Latino families, the National Center for Family Literacy (NCFL), the Joan Ganz Cooney Center (JGCC) at Sesame Workshop, and the National Council of La Raza (NCLR) convened two dozen of the nation's leading scholars on digital media, learning, and family life, as well as practitioners, policymakers, and philanthropic leaders committed to developing national initiatives to document the growing use of modern technologies among ethno-culturally diverse Hispanic children and families. This meeting, funded and convened by the National Center for Family Literacy and co-produced by the Cooney Center and the National Council of La Raza, was held on June 8th, 2012 at PNC Place in Washington, DC.

In this report, you will find a comprehensive synthesis of the presentations and group discussion from the Hispanic-Latino Families and Digital Technologies Forum. Participant interviews and forum videos are referenced throughout this section of the report, and can be found online at TinyURL.com/hispanic-latino-families. The event synthesis ends with a description of the pressing research and programming priorities regarding Hispanic-Latino families and digital technologies, which were identified through participants at the Forum.

In addition, this document contains a background paper (Appendix A) regarding the prior state of the research literature on Hispanic-Latino families' uses of digital technologies for learning. Following a thorough literature scan, this paper was written and distributed to Forum participants in advance of the convening to allow participants to begin the event on common ground and to provide launch points for group discussion.



This report also contains scholarly vision papers (Appendix B) written by (1) Patti Constantakis and Guadalupe Valdés, (2) Linda Espinosa and James Laffey, (3) Vikki Katz, and (4) Lisa Tripp. These short papers were commissioned by select leading scholars and distributed prior to the convening in order to help focus participants' close consideration of vital research questions that would emerge in presentations at the forum, and to surface critical front-line work and perspectives not likely to be included in the background paper.

Finally, you will find the agenda (Appendix C) for the Hispanic-Latino Families and Digital Technologies Forum, followed by the list of Forum participants and their affiliations (Appendix D). These documents serve as reference points for the major areas of inquiry addressed at the Forum and present the backgrounds and affiliations of those engaged in the day's discussions.



CONVENING SYNTHESIS

Sarah E. Vaala, PhD, The Joan Ganz Cooney Center at Sesame Workshop

On June 8th, 2012 a multi-disciplinary, multi-sector leadership group convened at PNC Place in Washington, DC. The goal of the convening was to better understand and facilitate the use of digital technologies to promote learning among Hispanic-Latino¹ families. The Hispanic-Latino Families and Digital Technologies Forum, funded by the National Center for Family Literacy (NCFL) and co-hosted by NCFL, the Joan Ganz Cooney Center (JGCC), and the National Council of La Raza (NCLR), brought together experts from research, practice, policy, and media production realms to confer about this critical issue.

The day's agenda (Appendix C) conveys a conference rich in scope with participants diverse in perspective and expertise (see list of attendees in Appendix D). The three main panels focused on the following topics:

- Socio-cultural context: Hispanic-Latino families and the challenges they face
- Promising practices: On-the-ground issues involving Hispanic-Latino families, technology, and education
- Emerging research on Hispanic-Latino families and digital media

This report describes the most prominent themes of conversation in an integrative manner, rather than by order of panel or presentation. Particularly prominent were discussions of equity, the great educational potential of digital media for Hispanic-Latino families, the varied contexts of families' digital media use, the need for innovation in research design, and the obstacles to studying and serving the needs of Hispanic-Latino families.

Setting the Stage: A Growing Community with Burgeoning Media Access

In preparation for the forum, a literature scan (Hispanic-Latino Families and Digital Technologies: Background Paper, Appendix A) and vision papers from four scholars (Appendix B) were produced



Michael Levine

watch video via YouTube ▶

Michael Levine, Executive Director of the Joan Ganz Cooney Center, describes co-conveners' goals for the Hispanic-Latino Families and Digital Technologies Forum, as well as highlights from the event. (<http://y2u.be/96R1bo0bKjw>)

Find other videos and resources about the forum at www.familit.org/hlfdt

¹ The term "Hispanic-Latino" is used in the convening synthesis and background papers based on findings from the Pew Hispanic Center which indicated that neither "Hispanic" nor "Latino" is universally embraced by the communities the terms are meant to identify (Taylor, 2012).



and distributed to participants. These documents highlight existing knowledge regarding the current role and potential of digital technologies in the lives of Hispanic-Latino families and describe emerging research and perspectives aimed at furthering that knowledge. Perhaps the most striking conclusion from the content within these documents is the importance of greater attention to research and practice in this area.

This point was also emphasized by forum presenter Mark Lopez of the Pew Hispanic Center, who stressed that deliberations like the present forum are crucial in light of the rapidly increasing growth rates among our nation's Hispanic-Latino population and their adoption of digital technologies. In fact, Lopez and his Pew colleagues estimate that the U.S. will be a "majority minority" nation by 2050, due largely to the growth of the Hispanic-Latino population, which is in turn attributed primarily to natural births, rather than immigration. Current estimates indicate that a quarter of our nation's children ages 5 and younger are Hispanic-Latino; as such, issues facing these families are especially timely and urgent.

Particularly striking among current Hispanic-Latino households in the Pew Hispanic Center's sample is the rate of cell phone ownership, as well as the kinds of cell phones that are owned and the ways that they are purportedly used. Lopez highlighted that 41% of these households are "cell phone only" homes, with no landline telephone access. Pew research also indicates that more Hispanic-Latino parents own smartphones compared to their White/non-Hispanic peers and that they are also more likely to access the Internet from their phones and to engage in more non-voice activities (such as texting or playing games). Rates of tablet and e-reader ownership are also growing and beginning to rival those of White/non-Hispanics, according to Pew's recent polls (e.g., an estimated 25% of White/non-Hispanic adults and 20% of Hispanic adults owned tablet computers as of August, 2012).²

Lopez also noted that ownership rates and uses of these new digital technologies vary widely within the Hispanic-Latino population, particularly by education level, generational status of immigration, and dominant language. Those who have immigrated to the U.S., are dominant Spanish speakers, or have lower levels of educational attainment are less likely to own cell phones, computers, tablets, and other digital devices, though even these gaps are beginning to close.

Looking Beyond Access: Defining and Achieving Equity in the New Digital Age

Setting the tone for the day's discussions, a morning presentation by impreMedia CEO Monica Lozano emphasized the transformative influence effective digital media use can have on whole communities—particularly immigrant communities. The ability to find, comprehend, analyze, and act on information remains critical in our society, she stressed. Much of that crucial information is now most widely available via digital media sources. Though these digital information environments are complex and finding information requires multiple steps and decisions—for example, choosing the best platform, going to the appropriate site, entering the right search terms, determining which results are most credible, etc.—most Americans effectively seek out, consume, and make use of information daily without conscious effort or consideration. Lozano argued that while the access gap between social groups is diminishing, an *information* gap remains, making *digital*

² Rainie, L. (2012, October 4). 25% of American adults own tablet computers. *Pew Internet and American Life Project*. Retrieved from: <http://pewinternet.org/Reports/2012/Tablet-Ownership-August-2012/Findings.aspx>.

³ Common Core Standards for English Language Arts and Literacy in History/Social Studies, Science, and Technical Subjects. Common Core State Standards Initiative. Pg. 7. Retrieved from: <http://www.corestandards.org/>.



literacy a key concern in today's society. The gaps that are often seen in immigrant communities—for example, in education, employment, and civic participation—often stem from difficulties many immigrants have in navigating their unfamiliar environments and in locating information they need. As such, impreMedia, a multi-platform media company created solely for the Hispanic-Latino community, was founded under the premise that, in Lozano's words, “those working in media have an obligation to work to close the ‘immigrant gap’” by providing information to immigrant families in ways they can comprehend and act on.

Lozano emphasized that the “most successful programs connect people to information that is useful to them,” a sentiment that was reiterated and exemplified by practitioners throughout the day. For example, Haley Robertson of Education Strengthens Families described her work teaching computer skills to Washington, DC low-income Hispanic-Latino adults who are simultaneously enrolled in an English language class. After teaching basic computer skills, Robertson integrates her computer course curriculum with content from the English course. For example, if students are learning about employment in English class, then, in computer class they learn to search Craigslist and jobs databases, fill out applications online, and create an email address that possible employers can use to contact them. The overall goal of the course, then, is not merely learning to use the computer, but rather learning how to use the computer as a tool to obtain useful information and to address everyday challenges.

Many forum participants stressed the need to train youth (as well as parents) to use digital technology effectively—focusing on the content and context of media use, as well as the nature of engagement with that media. Further, they felt that this training should be incorporated into formal education, given the ever-increasing centrality of digital literacy in our society. Much discussion surrounded the new Common Core State Standards and the need to integrate effective technology-use training with English, math, and other subjects in schools. “Students who are college and career-ready,” reads the Standards document, “use technology and digital media strategically and capably”.³ The document goes on to state that college and career-ready students:

...employ technology thoughtfully to enhance their reading, writing, speaking, listening, and language use. They tailor their searches online to acquire useful information efficiently, and they integrate what they learn using technology with what they learn offline. They are familiar with the strengths and limitations of various technological tools and mediums and can select and use those best suited to their communication goals. (p. 7)

When discussing the digital technology components of the Common Core State Standards, Dorothy Strickland of Rutgers University emphasized that “there’s a big difference between being able to manipulate




³ Common Core Standards for English Language Arts and Literacy in History/Social Studies, Science, and Technical Subjects. Common Core State Standards Initiative. Pg. 7. Retrieved from: <http://www.corestandards.org/>.



technology and actually using it for higher-level thinking. Technology should serve thinking.” In literacy-focused teaching, for example, teachers can use digital media sources to help students access and evaluate written or spoken text or generate their own writing—in the same way they might use print materials for the same purposes. Helping Hispanic-Latino youth and their families thrive in U.S. society, then, goes beyond ensuring them access to digital media to providing training and experiences which build media fluency, literacy, and effective use.


Craig Watkins of the University of Texas, Austin reiterated these points while describing his research with disadvantaged youth. Kids on the “digital edge”—who live in poor homes within poor neighborhoods—often figure out how to get access to digital technology, particularly social media platforms. Where kids’ digital equity diverges, he contended, is with the nature of engagement. Though youth on the digital edge overwhelmingly have access to digital media, they often have less effective, lower quality engagement with those media. Watkins stressed that we need to give kids the repertoire of digital technology skills needed to use media to solve problems, think critically, and contribute creatively. His vision of digital literacy is not binary, but rather a spectrum that ranges from lower order computer competencies to “higher order action and implementation skills.”



S. Craig Watkins
Univ. of Texas at Austin

watch video via YouTube ▶

S. Craig Watkins of the University of Texas Austin describes his research aimed at developing a new model for understanding learning in a networked age, and stresses the need to focus on the quality of youth media participation.
(<http://y2u.be/wCFnc5DSIlw>)



Jeanette Betancourt

watch video via YouTube ▶

Jeanette Betancourt, Senior Vice President of Outreach and Educational Practices at Sesame Workshop, describes how the “Sesame Workshop Model” incorporates the needs and perspectives of the families for whom media is being created during media development.
(<http://y2u.be/g-079AvBfOg>)

An important first step towards helping youth and their families achieve digital literacy and high-quality engagement is to better understand the nature of their existing perceptions and modes of media engagement. This charge was particularly stressed by Jeanette Betancourt of Sesame Workshop, the producers of *Sesame Street*. We cannot assume, reasoned Betancourt, that everyone who uses the same device uses it in the same way for the same purposes. She offered the cell phone as an example—while we have quite a bit of information about cell phone ownership across families, we still know very little about the perceptions different families hold about cell phones, the types of cell phone service plans they have, or the ways different families use their cell phones (e.g., voice, text, and internet usage). Furthermore, media-based educational programs and interventions may not succeed if their designers do not have a firm understanding of how families perceive of various technologies.

Unrealized Opportunities: Digital Technologies Can Support and Enrich Learning Among Hispanic-Latino Youth and Their Families

Forum speakers and attendees were in agreement that digital technology has profound educational potential for Hispanic-Latino families, though current practices often fall short of that potential. They discussed in particular the myriad benefits of and barriers to incorporating media education more thoroughly into children’s formal education. Particularly lauded were the opportunities media technologies present for more personalized learning, especially for students who are Spanish-dominant or bilingual. Karen Cator



of the U.S. Department of Education praised the “fully accessible learning environments” that technology provides, as content can be presented in any combination of spoken text, written text, and video.

A New Role for Educational Media

Expanding on a key theme in the forum’s Background Paper (see Appendix A), Diane August, a leading researcher at American Institutes for Research (AIR) described how bilingualism can be promoted through educational media. Given the ability to convey redundant information through different streams—written, aural, and pictorial—media can provide Spanish and English words, definitions, and nuanced explanations in ways that enable students to develop both languages. This is a particular asset, argued August, given the wealth of research indicating numerous cognitive, social, and academic benefits of bilingualism. These positive outcomes help to boost students’ self-confidence and positive ethnic self-image, which further boost academic achievement in turn.

What is more, many new media programs are able to account for users’ background and existing knowledge, allowing more fine-tuned interactions and learning opportunities. The mobility and multiple access points that digital media technologies provide also allow them to extend learning environments from school to home and back to school again. In fact, Brenda Dann-Messier, Assistant Secretary for Vocational and Adult Education at the U.S. Department of Education, charged the group to research and create personalized learning environments that include or focus on parents as well as youth. The parents’ success has been linked so often to the achievement of their children, particularly given the increased opportunities and positive role modeling that are associated with having parents who are able to fully participate in the economy. Given the demands on the time and resources of Hispanic-Latino parents, however, Dann-Messier stressed that we need to assist parental learning in ways that are most convenient to them. Patti Constantakis’ research at Great Schools with the College Bound program illustrates the same need. She found that parents seek and use information that pertains most directly to them at the times they most need it (read more about program design considerations in Patti Constantakis’ and Guadalupe Valdés’ vision paper in Appendix B). Several primary barriers to personalizing learning through digital media, however, include the relatively high costs and time required to acquire the technology, program it to engage in fine-tuned, user-driven interactions, and get it into students’ hands when they will make optimum use of it. Although the digital technology is constantly improving, providing families with “fully accessible learning environments” via digital media is still quite expensive and resource-intensive.



Inside and Out: The Role of Classroom Technology Integration and Home-School Connections

With regard to potential benefits of educational media in the classroom, several participants expressed concern that many educators and school districts are philosophically resistant to incorporating digital technology into their curricula. Also disconcerting are those classrooms where digital media exist but are not being used effectively to enhance learning. Michael Robb of the Fred Rogers Center described the National Association for the Education of Young Children (NAEYC) position statement on interactive media



in early childhood programs. Based on this statement, Robb stressed the importance of incorporating digital media within the existing ecosystem and curriculum of the classroom. Technology is most effective in advancing education when used intentionally and in ways that are developmentally appropriate for particular students. Rather than using devices for their own sake, argued Robb, it is essential to first give careful attention to what the students' needs are and how teachers can use media to accomplish what they already want to do. Furthermore, said Robb, parents and educators do not always have the same perspectives on or access to the same information. As such, one important avenue for research and development is the examination of ways that technology can help facilitate more effective communication between home and school.

Context Matters: Situating Digital Media Use Within the Full Family Learning Ecology

Although incorporating media literacy and fluency training into education for children and adults was emphasized at the forum, participants' focus also extended beyond the four walls of the classroom. Another avenue of discussion at the forum emphasized the need to consider the range of contexts in which Hispanic-Latino family members engage in media. Emily Kirkpatrick of the National Center for Family Literacy (NCFL) pointed out that much of the existing research, programming, and outreach services that exist take a "one generation at a time" approach, and each tends to consider only one context and one platform as well. These isolated approaches obscure the multiple contexts and technologies that Hispanic-Latino families may be engaging with—alone and jointly with others. "Digital

technology," urged Kirkpatrick, "has the power to help move families forward together." Echoing this sentiment, Charlene Lui described Granite School District's (Salt Lake City) efforts, funded by a Toyota Family Literacy Program grant, to help Spanish-speaking parents participate more directly in their children's school progress and also connect parents to educational opportunities and computer training classes of their own. A cornerstone of their program, claimed Lui, is helping the whole family learn to use technology together.



Through impreMedia's research endeavors, Monica Lozano has learned that multiple touch-points are needed to reach and engage all family members in Hispanic-Latino homes. In addition to the range of interests and tech-savvy common among different generations in most families, many Hispanic-

Latino families have members with different dominant languages. When children seek primarily English-language media, grandparents seek Spanish-language media, and parents may use some of both, programming for intergenerational media engagement can be a challenge. Making the content relevant across generations is also difficult, reinforcing the need for multiple points of access. For parents and grandparents with limited media literacy, making information about helpful programs accessible can be challenging, as resources often require email addresses or computer and Internet skills. Carrie Ann Zayas, Multicultural Marketing Manager at PNC, emphasized the importance of distributing PNC's "Grow Up Great" resources to families in physical "kits" in addition to online channels, and in bilingual formats. Similarly, Patti Constantakis (Great Schools) has found that the use of multiple means for disseminating information to Hispanic-Latino parents—through emails, text messages, phone calls, and messages from community and school partners—is crucial for program success. She has found that Spanish-speaking parents will often participate more and stay involved in the College Bound outreach



program longer than other parents, though it was often necessary to recruit them through schools and community programs instead of through digital channels like emails or online postings.

Some Spanish-dominant parents rely on their children for assistance in accessing and comprehending information from media and other sources, as well as for communicating directly with the outside community. Vikki Katz of Rutgers University described her research pertaining to Hispanic-Latino children's and adolescents' "brokering" of language, culture, and technology in families where children are the primary English speakers in their households. She emphasized that many inaccurate preconceptions exist about children's brokering that affects the success of their efforts on behalf of their families. The evidence suggests that children's brokering can strengthen family relationships and help children develop skills and knowledge that can facilitate their individual efforts as well (see also the background paper in Appendix A). Though youth often help their parents engage with technology, stressed Katz, parents contribute their adult understandings and wisdom, and parents and children mutually benefit. Children's brokering is an innovative family survival strategy, but is not a permanent one in many families; as parents gain facility with the English language, U.S. culture, and with how to access and make use of crucial resources, they are depending on their children less. More research is needed on children's brokering in immigrant families—particularly studies conducted through an open-minded lens that incorporate the whole family, and that aim to maximize the developmental and social benefits of this activity for Hispanic-Latino youth.

Notably, recent work by Lori Takeuchi and Michael Levine of the Joan Ganz Cooney Center has focused on revisiting and updating ecological systems theory of children's development for the new digital age, with the premise that "the what, how, and with whom" of children's media use interact to impact development.⁴ They argue:

If every stakeholder encircling the developing child—parents, teachers, technology manufacturers, media producers, researchers, journalists, policymakers and so on—can commit to understanding their role in influencing the new ecology of human development, children will have a better chance of realizing the promises, rather than the pitfalls, of digital media. (forthcoming)

Such a perspective, which considers the multiple contexts in which children live, grow, and use media, will be expedient in guiding research regarding Hispanic-Latino families' learning ecologies surrounding digital media while eschewing the all-too-common "one generation at a time" approach described by Emily Kirkpatrick.

Breaking the Research Mold: Understanding the Positive Potential of Digital Media for Hispanic-Latino Families Requires More Innovative Research

Participants vigorously concurred: what we know about Hispanic-Latino families and digital media only scratches the surface of what our understanding should be. Significantly more research is needed on these issues. Participants repeatedly emphasized the need to fundamentally innovate the research, design, and implementation processes, in order to truly advance our understanding and support of Hispanic-Latino families' use of digital technologies. One prominent concern was the slow pace at which research typically moves. With constantly and rapidly evolving iterations in technologies,

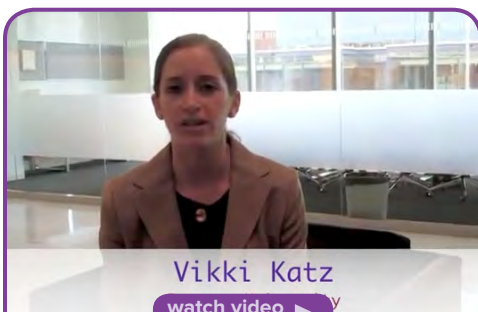
⁴ Takeuchi, L. & Levine, M. H. (forthcoming). Learning in a digital age: Towards a new ecology of human development In A. Jordan & D. Romer (Eds.), *Media and the well-being of children and adolescents*. New York: Oxford University Press.



traditional research and publishing cycles simply cannot keep up; data are too often outdated or obsolete before they are published. One suggestion, offered by Karen Cator (U.S. Department of Education) was to adopt more design-based research paradigms which enable rapid prototyping. Lori Takeuchi, Research Director at the Joan Ganz Cooney Center (JGCC), also described the JGCC's QuickStudy line of research as an additional model. QuickStudies involve timely, preliminary research conducted rapidly in order to surface important questions and hypotheses to pursue with deeper research before the technology moves on.

Participants also advocated for diverse research designs when studying Hispanic-Latino families. For example, Guadalupe Valdés of Stanford University emphasized the need for more qualitative research to add depth to what is gained from survey research. Given that survey research uncovers normative responses from respondents, many differences that exist among families from Hispanic-Latino subcultures are likely obscured in these studies. Qualitative designs enable more nuanced investigations which can uncover ways in which some families diverge, as well as offer socio-cultural context to the digital media practices and perceptions that are detected through survey work. Such designs may also allow the perspectives and behaviors of multiple family members to be incorporated into the same study, though this is more difficult with quantitative research designs.

Ellen Wartella of Northwestern University felt that many remaining questions can be answered with large-scale survey research. She stressed that, despite added costs, researchers should include sufficient participant samples from sub-cultural groups to enable our understanding of diverse families. Vikki Katz



Vikki Katz of Rutgers University explains the dangers inherent in using a deficit model to study Hispanic-Latino families and the importance of accounting for the diversity of Hispanic-Latino families in our research. (http://y2u.be/j-IN6Ty_9Xg)

(Rutgers University) echoed this sentiment, lamenting the use of the terms “Hispanic” and “Latino” as umbrella identifiers when so many important differences among families likely play a role in media use and impact. Not only should different families’ countries of origin be accounted for in research, she argued, but so too should factors such as generational and residency status, language dominance, social class, and regions of the U.S. where families reside.

Participants also indicated that problematic perspectives embedded in existing research obscure our understanding of and abilities to support Hispanic-Latino families. The goal of research, as described by participant Michael Lopez of the National Center for Latino Child & Family Research, is to be able to build programs that “engage and support [Hispanic-Latino families] that we know are helpful, meaningful, and relevant.”

Conducting research to that end involves “meeting families where they are,” instead of starting from assumptions that may be inaccurate and potentially problematic. Building on these comments, Charlene Lui (Granite School District) emphasized that it is particularly crucial to honor and take advantage of the “deep funds of knowledge” that Hispanic-Latino parents already possess, rather than to focus exclusively on their differences from White/non-Hispanic families.⁵ These sentiments were further expounded in a panel presentation by Vikki Katz (Rutgers University). Katz stressed the inherent dangers in conceptualizing research with Hispanic-Latino families around a deficit model in which White/majority

⁵ See: Moll, L.C., Amonti, C., Neff, D. & Gonzalez, N. (1992). Funds of knowledge for teaching: Using a qualitative approach to connect homes and classrooms. *Theory Into Practice*, 31(2), 132-141.



culture is set as the standard against which other families are compared (see also Vikki Katz's vision paper in Appendix B). This approach engenders a "have/have-not" binary in which Hispanic-Latino families are set up as a foil to majority culture, middle class families. Truly understanding the lives and development of Hispanic-Latino youth and families, she argued, requires researching these families on their own terms.

Taking this perspective a step further, Guadalupe Valdés (Stanford University) cautioned against seeking to change the behavior of Hispanic-Latino parents by pushing them to become "imitation White/non-Hispanic" parents. Parenting styles are culturally based to a great extent, she reasoned, and trying to change the behaviors of parents from one culture to more closely resemble those of another culture could very well lead to unintentional and unfavorable outcomes. As an example, Valdés offered the role of parents in their children's formal education. A common model for American parents is to serve as an "adjunct school teacher"—for example, parents work on ABCs with their children to ready for them for school, and teachers send home suggestions of things parents should do to supplement their children's learning. Conversely, Latina mothers tend to focus more on developing pro-social behaviors in their children, seeing their maternal role more as "good people makers." Debra Sanchez of the Corporation for Public Broadcasting pointed out while they may not see themselves as their children's "teachers," Hispanic-Latino parents are eager to support their children's learning and that model need not perfectly resemble the behaviors of parents from other cultures. By pushing Hispanic-Latino parents to become adjunct school teachers to their children, argued Valdés, we are tinkering with an ecological family system of which we know very little. Furthermore, getting parents to focus more on teaching their children may mean they focus less on the culturally-based behavioral socialization that leads to high quality "good people making." Valdés suggested using digital technology to provide information to Hispanic-Latino families and to trust that they will make good use of it with the knowledge and familiar parenting styles and practices that they have strongly in place.



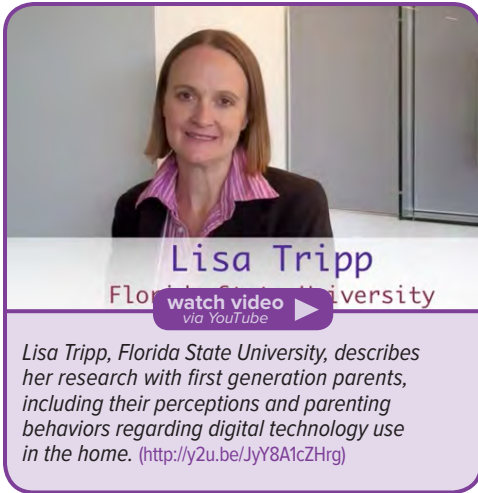
watch video
via YouTube

Guadalupe Valdés (Stanford University, left) and Patti Constantakis (GreatSchools.org, right) describe the benefits of providing Hispanic-Latino families with practical information through programs, rather than seeking to change their behavior to more resemble that of majority culture families. (<http://y2u.be/EZj1DvaSY1Q>)

Blazing the Trail: Addressing the Barriers to Effective Research and Practice

Forum participants across various sectors described obstacles they have encountered while studying or serving Hispanic-Latino families, particularly with regards to digital technologies. Perhaps the most basic barrier mentioned was the sheer affordability of digital media resources. Despite decreases in costs as technologies become more widely available, even basic digital technologies like cell phones and Internet access have associated costs that can strain the financial resources of many families, argued Brenda Dann-Messier (U.S. Department of Education), and the most cutting-edge technologies are downright expensive. Analyses from University of Missouri researchers, Linda Espinosa and James Laffey, using Early Childhood Longitudinal Study of Kindergarten Children (ECLS-K) data indicate that children in lower SES and language-minority homes are still disproportionately less likely to have computer and Internet access in the home. Furthermore, lacking regular access to these technologies correlates with lower school achievement scores (see their vision paper in Appendix B). Dann-Messier suggested we should call on communities to provide basic technological resources, such as broadband Internet, to help ensure ubiquitous access to families.

Other barriers to studying and using digital media with Hispanic-Latino families stem from underlying trepidation among parents regarding how these unfamiliar technologies may affect their family



Lisa Tripp, Florida State University, describes her research with first generation parents, including their perceptions and parenting behaviors regarding digital technology use in the home. (<http://y2u.be/JyY8A1cZHrg>)

ecosystem. For instance, Emily Kirkpatrick reported that in its work with Hispanic-Latino families, the National Center for Family Literacy has encountered many parents who fear that they will break the various technologies. This fear in turn engenders an apprehension of using the technology at all. Research conducted by Florida State University professor, Lisa Tripp indicates that Hispanic-Latino parents firmly believe that their children should have access to the Internet and other digital media to help them succeed in school. However, many are also unsure of how to best monitor and mediate their children's use as parents are not familiar with these media themselves (see also Lisa Tripp's vision paper in Appendix B). As a result, Tripp has found that youth with immigrant parents tended to have fewer opportunities to deeply engage with media in their homes, compared with time they had to do

so in school. She argued that her findings and others' collectively highlight the need for digital literacy programs for both parents and youth, particularly given the benefits associated with parent-child joint engagement with media. Brenda Dann-Messier (U.S. Department of Education) echoed this sentiment, adding that parents feel both proud and empowered when they are able to participate side-by-side with their children while using digital technologies.

Additionally, Vikki Katz (Rutgers University) mentioned the fears that many parents with undocumented residency status have regarding how their personal information may be tracked and used via digital media. In fact, she argued that this is a particularly difficult barrier to overcome when working with immigrant families as we really do not know whether and how such information may be collected and used either, which undermines our ability to reassure parents and build their trust.

Another practical concern for studying and working with Hispanic-Latino families was the difficulty and expenses associated with providing families with materials that are culturally and linguistically relevant to them. Hispanic-Latino immigrants use diverse variations of Spanish, meaning that verbatim translations are usually insufficient since words and meanings may vary. As pointed out by Patti Constantakis (Great Schools), providing information in culturally and linguistically relevant ways is crucial to facilitating buy-in, comprehension, and participation from families. Furthermore, the effort and expenses associated with distributing these tailored materials pays dividends, argued Diane August (American Institutes for Research), as parent-child literacy initiatives are most successful when parents are able to use their primary language while participating.

Finally, given the calls to partner with schools, after-school centers, and other community organizations to reach and aid Hispanic-Latino families, forum participants considered barriers associated with community infrastructure and professional development as well. In difficult financial times, technological training and professional development are often not high on the priority list for many school districts. Yet, as Michael Robb (Fred Rogers Center) emphasized, the efficacy of digital media use in education is predicated on intentional, goal-driven use of the technology by educators, which in turn derives from strong training and planning. Matthew Tessier, Executive Director of Technology and Instruction Services and Support in the Chula Vista School District (California), described one way his district has combated this problem. To train teachers to effectively use technology in the classroom—under the constraints of a limited budget—Tessier starts small and carefully trains just a few teachers really well. Those teachers are then encouraged to become ambassadors and to distribute their knowledge to other teachers, who can come



back to them with questions or for help as needed. Haley Robertson's institution Education Strengthens Families has taken a similar approach. She noted that training only a few teachers and letting them train peers has been a particularly effective system since the originally-trained teachers know the challenges and circumstances that other teachers face as well, and can thus offer more seasoned, personalized suggestions.

Looking Forward: Research and Practice Priorities for Promoting Optimal Engagement with Digital Technologies Among Hispanic-Latino Families

The forum concluded with a full group synthesis of the day's key points and development of top priorities for researchers and practitioners interested in understanding and supporting advantageous digital technology use among Hispanic-Latino families. Given what we do not yet know about these families' digital media uses and potential related to family learning, much of this final conversation clarified research needs—including issues to be investigated, as well as methodological techniques that could apply to those investigations. Still, the group felt that we know enough about some of the best practices for promoting favorable engagement with digital technologies to also endorse various programmatic practices as key priorities.

Research Priorities

Forum participants felt the following questions are particularly important to address in future research in order to better understand the current uses of digital technologies among Hispanic-Latino families and how optimal engagement may be promoted.

- **How do Hispanic-Latino families currently perceive, use, and engage around digital technology?** What technologies do families use, in what places, and for what purposes? To foster beneficial modes of participation with digital technologies, it is critical that we first investigate how families already engage with these media across multiple settings and contexts—with a particular emphasis on media used to learn or interact with the broader community. Given the demonstrated benefits of jointly using media, an important goal of this research should be identifying media use patterns when family members use digital media alone and together. Probing the attitudes and perceptions of parents, children, and other family members regarding digital technologies is also critical, as underlying beliefs influence their behavior and should inform the best course of outreach and training.
- **What is the nature of digital media participation outside the home for many Hispanic-Latino families?** Though much media use occurs in the home, families also are likely to encounter digital

In light of the extent of organization and action needed to propel these research and practice priorities, a core group of participants from the forum have joined together to create a working group focused on issues raised at the forum. **This working group constitutes the first national, inter-sectoral community dedicated to understanding the role that technology and media can play in supporting the learning, health, and enrichment of Hispanic-Latino families.** The primary goals of the group include the following:

1. **Set agendas and action steps for the policy, research, and philanthropy sectors**
2. **Identify and create models for best practices in the industry and education sectors.**
3. **Raise national awareness of these efforts and their importance.**



technologies in other settings as well. Investigating modes of media participation in schools, libraries, community centers, and other settings is needed to obtain a full picture of Hispanic-Latino families' media use patterns. Furthermore, digital media pose great opportunities for fostering connections and communication pathways between children's schools and homes, though more research is needed to determine the existing and potential use of media for this purpose.

- **What are the affordances and constraints of various technologies for family engagement, learning, and empowerment?** Promoting the positive potential for digital media in the lives of Hispanic-Latino families requires greater understanding of the discrete features of each technology and their corresponding affordances. If Hispanic-Latino youth and their families have high rates of access to smartphones, for example, we should understand the advantages and pitfalls of using the Internet through these devices compared to computers and other Internet-equipped technologies. Also needed is attention to the benefits that come from different types of engagement with digital media (for example, using a smartphone to access email compared to Facebook). Armed with this information we can begin to study how best to design devices and learning opportunities that appeal to families. Further, we can investigate the devices and opportunities that foster kids' design orientations and behaviors in order to promote higher-order thinking through the use of digital technologies.

Priorities for Research Methodologies

- **Include parents and youth from the same families for data triangulation.** Incorporating multiple perspectives from within families would illuminate ways in which family members' perspectives and experiences are similar and disparate. Using this methodology would also shed light on the extent and nature of joint media engagement that is occurring in Hispanic-Latino households.
- **Include sufficient proportions of Hispanic-Latino families from diverse backgrounds to enable better understanding of various subgroups.** Differences in families' backgrounds based on factors like country of origin, nativity/generational status, and language dominance can play important roles in the nature of families' participation with digital media and the associated outcomes. Truly understanding families' diverse circumstances and building appropriate programs for them requires taking these contextual factors into account, rather than treating Hispanic-Latino families as a monolithic group.
- **Study smaller samples of families in depth within the context of their homes, daily lives, and communities to understand the wider ecologies that kids and their families are navigating.** A rich understanding of Hispanic-Latino families and the circumstances of their lives is precluded by reliance on survey research. Qualitative case study research is also needed to add depth to the picture provided by survey research and to truly understand the nuances of families' lives and the role of digital technologies within those lives.
- **Avoid deficit models, assumptions, and problematic comparisons between Hispanic-Latino families and White/non-Hispanic families.** Studying Hispanic-Latino families on their own terms is critical for appreciating the particular socio-cultural characteristics and supports within their ecologies, and the way their unique circumstances impact participation with digital media. When Hispanic-Latino families are studied in comparison to White/non-Hispanic families, we learn only the ways in which they differ. When the latter is set as the standard of normalcy, this espouses a deficit model approach which may not be accurate or useful. Comparisons between Hispanic-Latino families from different backgrounds



(e.g., SES, dominant language, U.S. generational status) would be more appropriate and better elucidate differences that exist among families within the same culture based on various circumstances.

- **Develop new research designs which enable quick investigations of digital media use and impact before the technologies become obsolete.** Though academic research has long been considered the gold standard, these methodologies are also slow to develop, deploy, and disseminate. On the other hand, our society is experiencing a period of rapid growth in technological development. Thus, newer, faster approaches to researching the affordances, uses, and effects of digital technologies are needed to understand their role and potential before the field moves on.

Programming Priorities for Organizations that Serve Hispanic-Latino Families

Other priorities surfaced by the group discussion were intended for programs serving Hispanic-Latino families. Though more research is needed to inform more comprehensive directives for best practices, participants felt that we have enough working knowledge to endorse the following priorities:

- **Personalize content and instruction to meet individual learners' needs.** Programs should harness the ability for digital technologies to deliver educational content via multiple modalities simultaneously and to provide content contingent on a user's background, existing skills, and prior knowledge. Families should also be able to engage with content in their native language.
- **Develop and demonstrate family approaches to learning via technology.** Intergenerational joint media engagement can be a particularly potent way for families to learn together and develop a sense of empowerment. The benefits of such participation are compounded by the unique perspectives and abilities that each generation brings to the media use experience—though youth are more likely to experiment and gain functional competencies quickly, parents and grandparents have accumulated more years of wisdom that can facilitate family learning across generations.
- **Provide parents with information using multiple platforms/media.** Programs should seek to provide Hispanic-Latino parents with practical information that meet their needs, without attempting to fundamentally alter their parenting style. For example, school districts should seek ways to foster more effective communication with parents through digital technologies. Additionally, designers should build programs that can be delivered to parents in ways and at times that are most convenient to them.
- **Provide educators with professional development to use technology effectively in family-, child-, and adult-centered venues.** Digital technology use will be most beneficial when it is purposefully integrated within existing curricula for youth and adults—such integration emphasizes technology as a means for critical thinking and problem-solving. In order to design and implement optimal, digitally-integrated curricula educators should have access to appropriate professional development opportunities.

Conclusions

Comprehending the national imperative to improve the education and well-being of Hispanic-Latino families requires only a brief glance through demographic statistics. As of 2010, there were an estimated



10.4 million Hispanic-Latino households in the United States, comprising approximately 13% of total households in the country.⁶ Hispanic-Latinos made up 22% of young people under age 18 in 2009, and 26% of those were under the age of five.⁷ More than 25% of Hispanic-Latino families were living below the poverty line in 2010, and only 14% of Hispanic-Latino adults 25 and older held a bachelor's degree (compared with over 33% of non-Hispanic White adults).⁸ Though our nation is increasingly comprised of children and adults with Hispanic-Latino origins, we have not yet succeeded in addressing the challenges and stresses that disproportionately impact this community.

Proceedings of the Hispanic-Latino Families and Digital Technologies Forum indicate that understanding and harnessing the potential of new and emerging digital technologies to teach and empower Hispanic-Latino families will be a crucial step toward supporting this substantial and diverse segment of our population. The mobility of many new technologies allows “anytime, anywhere” learning that can traverse families’ physical and social contexts. The inherent appeal of digital media can engage learners, and the ability to simultaneously convey information through multiple streams and in numerous languages means that media engagement can be put to optimal educational use. The increasing presence of digital technologies within the home and other spheres of family life points to joint media engagement as a prime method of promoting intergenerational learning.

But significant challenges remain. We must pursue a deeper understanding of Hispanic-Latino families and their uses and perceptions of digital technology, while also boosting our knowledge of the affordances that various platforms and media provide to promote learning. We must design programs with quality content, delivery, and implementation strategies that can be personalized for families from diverse circumstances and then build the infrastructure that ensures them access. Finally, we must train educators to integrate digital technology most effectively within curricula and to teach families to use these tools in ways that will help them connect, communicate, and create. Not a trivial undertaking, to be sure—pursuing these developments will require no small amount of resources and determination. Given the ever-evolving sophistication and indispensability of our digital technologies and the vibrant and growing community of Hispanic-Latino families in our nation, these investments should pay considerable future dividends.

⁶ U.S. Census Bureau data. Retrieved from: http://www.census.gov/newsroom/releases/archives/facts_for_features_special_editions/cb11-ff18.html

⁷ U.S. Census Bureau data. Retrieved from: <http://www.infoplease.com/spot/hhmcensus1.html>

⁸ U.S. Census Bureau data. Retrieved from: <http://www.infoplease.com/spot/hhmcensus1.html>



BACKGROUND

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A Growing Population

In May of 2012, the Census Bureau announced that, for the first time in our nation's history, more than half of all births in the United States in 2011 were babies born to parents of minority racial/ethnic groups (Cauchon & Overberg, 2012; Census Bureau, 2012). The majority of these minority births occurred among Hispanic-Latino families, who collectively represent the largest racial/ethnic minority group in the U.S. The surge in Hispanic-Latino births is due largely to the relatively young median age within the current Hispanic-Latino population (Cauchon & Overberg, 2012). In fact, half of all members of this ethnic group in the U.S. are under the age of 27, compared to a median age of 42 for non-Hispanic Whites and 32 for non-Hispanic Blacks (Motel, 2012). Further, nearly a quarter (23.1%) of all U.S. children ages 17 and younger was of Hispanic-Latino descent in 2010 (Passel, Cohn & Lopez, 2011). This large proportion of Hispanic-Latino youth has led the Pew Hispanic Research Center to predict that this ethnic group will grow from 16% of the U.S. population to 29% by 2050 (Passel & Cohn, 2008).

The U.S. Census Bureau officially uses the terms "Hispanic" and "Latino" to represent people "of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin regardless of race" (Humes, Jones, & Ramirez, 2011, p. 2). The term "Hispanic" was adopted in 1977 by Congress to subsume these pan-ethnic populations under one broader category (Rumbaut, 2006; Taylor, Lopez, Martinez & Velasco, 2012). "Latino" was added by Congress in 1997, and the terms are commonly used interchangeably as pan-ethnic identifiers, though each remains in debate among those they are used to represent (Rumbaut, 2006; Taylor, Lopez, Martinez & Velasco, 2012). These terms, adopted primarily for the "collection and use of data on race and ethnicity by Federal agencies" (Federal Register, 1997, quoted in Rumbaut, 2006, p. 7), are now used at a broad socio-political level and hold their particular meaning only in the United States (Rumbaut, 2006).

The pan-ethnic nature of "Hispanic" and "Latino" as identifiers obscures the multiple and diverse ethnicities they represent. Furthermore, a recent report from the Pew Hispanic Center indicates that the majority of people classified as Hispanic-Latino do not personally relate to either identifier (Taylor et al., 2012). Many (51%) prefer to use their family's country of origin to describe their identity, and one in five (21%) prefer simply "American." This may be due to the fact that 63% of Hispanic-Latinos were born in the U.S. (Motel, 2012) and that less than a third (29%) of Hispanic-Latinos in the U.S. feel that Hispanic-Latinos "share a common culture" (Taylor et al., 2012, p. 3). Though most Hispanics-Latinos in the U.S. cite Mexico as their family's country of origin (64.9%), there are also substantial populations of those of Puerto Rican (9.2%), Cuban (3.7%), Salvadoran (3.6%), and Dominican descent (3.0%). While acknowledging the diversity that exists among the multitude of these ethnic groups within the U.S., this paper will employ the broader, pan-ethnic terms of "Hispanic" and "Latino" for reasons of clarity and in order to offer an efficient overview of the research landscape. Because the Pew Hispanic Center has reported some debate within this pan-ethnic community over which term is preferred (Taylor et al., 2012), this paper will use both terms in combination throughout (i.e., "Hispanic-Latino").



Challenges Facing Hispanic-Latino Families

As a whole, Hispanic-Latino families in the United States are disproportionately likely to face a number of challenges. Recent estimates indicate that there is currently a higher proportion of Hispanic-Latino children living in poverty than from any other race/ethnicity (Lopez & Velasco, 2011), and that Hispanic-Latino children experience unfavorable health outcomes in greater numbers as well, including overweight/obesity, dental caries, and asthma (Flores et al., 2002). The plight of Hispanic-Latino children is due, in part, to the greater rates of school drop-out (Fry, 2010), unemployment (Kochhar, 2010), and teenage pregnancy among this population relative to their White and Black peers (Pew Hispanic Center, 2009). Furthermore, the median household income among Hispanic-Latino households fell 66% between 2005 and 2009, from \$18,359 to \$6,325; this in comparison to the 2009 median White household income of \$113,149 (Kochhar, Fry, & Taylor, 2011). Each of these challenges is particularly pronounced among foreign-born Hispanics-Latinos, compared to those born in the United States (Pew Hispanic Center, 2009).

In addition, Hispanic-Latino children in the U.S. also face barriers to high quality education. As of 2005, Hispanic-Latino children between 3 and 5 years of age were less likely than their peers to attend center-based preschool programs, and rates of enrollment were particularly low among Hispanic-Latino children whose families were below the poverty line (KewalRamani et al., 2007). Due perhaps in part to this lack of pre-primary school academic preparation, as well as disproportionate assignment to low quality schools and language barriers among Spanish-dominant students, school-age Hispanic-Latino students are more likely to score below proficient on standardized reading and math assessments (Hemphill, Vanneman & Rahman, 2011; KewalRamani et al., 2007). Notably, the most recent report from the National Assessment of Educational Progress (NCES, 2012) at Grade 8 indicates that average grade performance in science among Hispanic-Latino students has risen since 2009, narrowing existing gaps with non-Hispanic White students.

In addition, Hispanic-Latino adolescents who graduate from high school have relatively low college enrollment numbers, and an even smaller percentage goes on to graduate with a bachelor's degree, though these rates are on the rise (Fry, 2011). These realities are in spite of the fact that a majority of Hispanic-Latino youth report that attaining a college degree is important for life success and also perceive strong encouragement from parents and relatives to excel in academics and attend college (Lopez, 2009).

Table 1. Educational attainment by race and ethnicity in 2010 (in percentages)

	Less than 9th grade	9th – 12th grade	High school graduate	Some college	College graduate
Hispanic	22.4	15.3	26.4	22.8	13.1
Native born	8.0	13.1	29.0	32.6	17.3
Foreign born	33.4	17.0	24.4	15.3	9.9
White (non-Hispanic)	2.9	6.4	29.3	30.0	31.4
Black (non-Hispanic)	5.1	12.7	31.8	32.4	17.9

Note: Table drawn from Pew Hispanic Center report (Motel, 2012). Data represents 2010 population of U.S. residents 25 years old and older. “Some college” includes those who have attained an associate’s degree; “college graduate” includes those with a bachelor’s degree. Data only includes those persons listing a single race.



Finally, many Hispanic-Latino children experience discrimination in their daily lives. Nearly 40% of teens and young adults between 16 and 25 report that they or a close friend or family member have been the victim of ethnic discrimination (38%; Pew Hispanic Center, 2009). In a 2011 study of 7- to 12-year-old children, Hispanic-Latino children reported higher daily discrimination than their non-Hispanic Black and White peers, citing in particular that they were treated generally less well and with less respect because of their ethnicity (Dulin-Keita, Hannon, Fernandez, & Cockerham, 2011). Many Hispanic-Latino youth describe discrimination from peers as well as teachers and other members of society, which is elicited by their English fluency, low family affluence, skin color, status as immigrants, and due to negative stereotypes (Edwards & Romero, 2008; Lee & Ahn, 2012). Furthermore, such blatant or perceived discrimination is associated with lower self-esteem, higher rates of depression and anxiety, and decreased academic motivation and performance among youth (DeGarmo & Martinez, 2006; Edwards & Romero, 2008; Lee & Ahn, 2012). Higher rates of perceived discrimination, as well as “acculturative stress” due to adapting to a new culture place first generation Hispanic-Latino youth at even greater risk for these outcomes (Kuperminc, Wilkins, Roche, & Alvarez-Jimenez, 2009).

Digital Media Access and Use

In data from 2010, the Pew Hispanic Center found that 45% of Hispanic-Latino households have broadband Internet access, compared to 65% of non-Hispanic White and 52% of non-Hispanic Black homes (Livingstone, 2011). Pertaining to cell phone ownership, 76% of Hispanic-Latino adults own a cell phone, while 79% of Blacks and 85% of Whites report having one. These access gaps seem to be closing and some analyses suggest the differences disappear once education and income are controlled (Livingston, 2011; Zickuhr & Smith, 2012). Furthermore, Hispanic-Latino adults are more likely to use cell phones to access the Internet, in lieu of home broadband access (6% of Hispanics, 6% for Blacks, 1% for Whites), and are also more likely to use a cell phone for non-voice related activities, particularly in comparison to Whites (Livingston, 2011; Zickuhr & Smith, 2012, p. 21). Notably, Pew Internet & American Life polls indicate that Hispanic-Latino adults own smartphones and tablet computers at a higher or equal rate to White and Black non-Hispanic adults (Rainie, 2012; Zickuhr & Smith, 2012).

Table 2. Percentage of White, Black and Hispanic-Latino adults with access to digital technologies

	Computer ^a	Internet ^b	Home broadband ^b	Cellphone ^c	Smartphone ^c	Tablet computer ^d
White (non-Hispanic)	79	80	66	85	45	19
Black (non-Hispanic)	67	71	49	79	49	21
Hispanic	70	68	51	76	49	21

Note: All data is from Pew Research Center and pertains to adults ages 18 and older. ^a2010 data from Smith (2010); ^b2011 data from Zickuhr & Smith (2012); ^c2010 data from Livingston (2011); ^d2012 data from Rainie (2012).

What is more, patterns of digital media access differ among Hispanic-Latino adults based on U.S. nativity. In particular, those born in the U.S. are more likely to have a cell phone, go online, have a home Internet connection, and for that Internet connection to be broadband (Livingston, 2011). Similarly, Spanish-dominant



Hispanic-Latino adults trail those who are dominant in English in personal access to these technologies as well. Still, access to and use of cell phones and high-speed Internet is growing across Hispanic-Latino populations, including those who are foreign-born and Spanish-dominant.

Hispanic-Latino teens and young adults use mobile and Internet technology more frequently than older adults, though this demographic still has access to these technologies at a lower rate than their non-Hispanic peers (Livingston, 2010; Lopez & Livingston, 2010). Again, there are marked differences based on nativity. U.S.-born Hispanic-Latino youth (ages 16-25) are more likely than the foreign-born to use the Internet (91% vs. 58.5%), own a cell phone (84% vs. 70%) and send daily text messages (65% vs. 26%; Livingston, 2010; Lopez & Livingston, 2010). When it comes to total time spent with media (TV/movies, computer, music, print, cell phone, and video games), however, Hispanic-Latino as well as Black youth between ages 8 and 18 spend more time on average consuming media than their White peers (13 hours/day for Hispanic-Latino and Black youth; 8:36 hours/day for White youth; Rideout, Foehr, & Roberts, 2010). Furthermore, Hispanic-Latino youth spend more time than their non-Hispanic White peers with each discrete form of media (e.g., TV, movies, video games, music, computer, and cell phone) except print (e.g., books, magazines).

This Report

Though these data are informative, they fall short of answering deeper, more important questions pertaining to Hispanic-Latino families and digital media use. For example, little is known about the specific activities in which Hispanic-Latino youth and their families engage in most via digital media technologies. Further, it is not yet fully clear what reasons account for differences in access and use of various digital media between Hispanic-Latino families and others or between Hispanic-Latino families that vary by language dominance, U.S. nativity, or other factors. And finally, we do not yet know what implications those access and usage patterns might hold for Hispanic-Latino youth development, family relationships, and well-being.

In the sections below we summarize key literature regarding the socio-cultural context for many Hispanic-Latino families in the United States. Each section concludes with a brief discussion of the implications of the respective contextual factors for the presence and consequences of digital media within Hispanic-Latino families (i.e., Digital Media Implications). The use and impact of digital media within families is part of the overall family ecosystem, and cannot be separated from broader factors such as parenting styles, acculturation/biculturation, and formal education dynamics. This report is meant to spur conversation, research, and development of best practices with regards to digital media use by Hispanic-Latino families, and we end with a charge to researchers, practitioners, and policy-makers attending the Hispanic-Latino Families and Digital Technologies Forum hosted by the National Center for Family Literacy (NCFL), Joan Ganz Cooney Center (JGCC), and the National Council of La Raza (NCLR) on June 8, 2012.

FAMILY DYNAMICS

Parenting Styles

Many factors must be taken into consideration when conceptualizing human developmental processes. Among these factors, parenting style and behavior have been shown to have a significant impact on children. Baumrind's (1966) parenting style labels—authoritarian, authoritative, permissive, and neglectful—have long provided a focus through which to examine parental warmth, demandingness, autonomy granting,



and the impact of these factors on children. While this framework is useful for classification purposes, a study by Rodriguez, Donovanick, and Crowley (2009) showed that the majority of Hispanic-Latino families in their study of 50 families (of mostly Mexican descent) did not fit into one of the four classifications. Rather, the majority fell into a category labeled “protective,” which was characterized by high levels of warmth and demandingness, and a low level of autonomy granting (Rodriguez et al., 2009). While generalizations cannot be made for all Hispanic-Latino families based on this study, it does bring into focus the knowledge that Baumrind’s “mainstream” classifications do not accurately capture all forms of parenting, and that there is much to be learned from cultural groups with different practices and norms.

Parental Support and Identity Development

Other dimensions of parenting, beyond traditional parenting style classifications are important to consider in youth development as well. A study by Supple and colleagues (2006) examined the contextual factors that influence ethnic identity development and academic achievement among Hispanic-Latino adolescents. The study found that familial ethnic socialization, higher levels of parental involvement, and lower levels of harsh parenting were all positively associated with ethnic identity exploration and resolution among youth. In addition, low levels of parental involvement and high levels of harsh parenting were both associated with negative feelings among adolescents surrounding their ethnic identity (Supple, Ghazarian, Frabutt, Plunkett, & Sands, 2006). The study indicated further that adolescents with more positive feelings towards their ethnicity performed better in school than peers with more negative attitudes (Supple et al., 2006). A longitudinal study by Umana-Taylor and Guimond (2010) highlighted similar positive correlations between familial ethnic socialization and identity development among Hispanic-Latino adolescents. In this study, higher levels of parental warmth were related to positive ethnic identity development among male adolescents.

Other research regarding youth identity development and parental support has linked the above constructs to higher academic achievement, and suggested that these factors can moderate the potential negative impact of other contextual factors such as SES and neighborhood characteristics on the development of Hispanic-Latino children (Ong, Phinney, & Dennis, 2006; Supple et al., 2006). Other contextual factors must be taken into consideration, but the research on parental warmth, support, and familial ethnic socialization highlights the fact that there are ways in which Hispanic-Latino parents positively impact the development of their children despite various challenges.

Familismo

The term *familismo* refers to “a desire to maintain strong family ties,” and involves a strong “commitment to the family over individual needs and desires” (Halgunseth, Ispa, & Rudy, 2006, p. 1285). Just like parental support and strong ethnic identity development, *familismo* has been linked to higher levels of academic success among Hispanic-Latino youth (Fuligni, 2001; Fuligni, Tseng, & Lam, 1999). Although the presence and power of the *familismo* construct may not be generalizable to all Hispanic-Latino families, it is a value that seems to permeate a wide range of Hispanic-Latino culture (Fuligni, Tseng, & Lam, 1999).

Looking back to the “protective” parenting style as defined by Rodriguez et al. (2009), it makes sense that the low level of autonomy granting that helps characterize protective parenting is connected to and stems in part from a family’s sense of *familismo*. The interdependence of the family plays a strong role in generating an environment of support and a sense of responsibility that goes beyond the individual. This



sense of interdependence has been shown to have positive impacts on the engagement and achievement of children from immigrant parents (Fuller & García Coll, 2010). Unfortunately, as generations of immigrant families acculturate to American society, *familismo* and its subsequent positive implications have been shown to wane among Hispanic-Latino families (Crosnoe, 2005).

Digital Media Implications

When thinking about how Hispanic-Latino families interact with and around digital media, protective parenting styles, familial ethnic socialization, and *familismo* are all important factors to take into consideration. For example, while Hispanic-Latino parents recognize that computers and Internet access can provide valuable educational opportunities, many are also concerned with the risks of letting their children go online (Tripp, 2011). These risks, though not unfounded, may stem largely from lower levels of knowledge among this demographic regarding newer digital media and how to use and interact with them. As a result, Hispanic-Latino parents appear to exhibit greater restrictive and controlling behavior with regards to their children's access to these newer media, perhaps limiting opportunities for potentially valuable interaction and engagement (Horst, 2009; Tripp, 2011).

Notably, these same restrictions are not prevalent with older forms of media. Though parents don't necessarily see any educational value to television and video games, they tend to grant their children access to these forms of media more freely (Rideout et al., 2010). In addition, television watching is often seen as an intergenerational activity for Hispanic-Latino families to engage in together, helping to support positive family dynamics (Takeuchi, 2011; Tripp, 2011).

Looking to the future, digital media will continue to become a ubiquitous part of society. Devices such as smartphones and tablet computers will likely become more affordable and therefore accessible to a greater number of families. Creating opportunities for Hispanic-Latino parents to gain knowledge of the operation, affordances, and benefits of digital media could allow them to mediate their children's media experiences more effectively. This is particularly important as mere access to digital technologies does not guarantee benefits for youth. Rather, the outcomes associated with use are largely impacted by the nature of participation and content with which youth engage, prompting leading scholars like Craig Watkins to call for increased attention to the "digital literacy divide," in addition to access divides (Watkins, 2011). In one longitudinal study, Vigdor and Ladd (2010) found that the adoption of Internet in the home was associated with lower grades among students in grades 5 through 8 (though already having access was associated with benefits). Taking a different approach, Goode (2010) examined through several case studies how the "technology identity" kids develop during elementary and high school can impact their college academic and social experiences in favorable or unfavorable ways.

Based on Tripp's findings (2011), many Hispanic-Latino parents are aware of the potential of newer technologies. Greater opportunities to learn about these technologies may aid their feelings of empowerment and adoption and mediation rates. A study by Chrispeels and Rivero (2001), showed that by engaging in an eight-week-long set of classes about the American education system, Hispanic-Latino parents became more engaged and proactive about supporting and taking part in their children's education. Similar programs and workshops could be generated for Hispanic-Latino parents concerning digital media.

In terms of identity formation, kids are turning increasingly to the online world and social networking sites to express themselves, and this expression impacts their sense of self (Ito et al., 2009). This is noteworthy



for the Hispanic-Latino community where familial ethnic socialization has been shown to lead to positive identity development and positive achievement in school among youth (Supple et al., 2006; Umana-Taylor & Guimond, 2010). As such, researchers and developers should consider ways in which parents can help mediate the self-expression and identity formation that result from their children's engagement in the digital world.

Additionally, digital media should be developed which encourages intergenerational interaction. If watching television is indeed an activity that promotes intergenerational connectivity, the possibilities of using digital media for increased familial interaction are exciting and could help to further promote and deepen the culturally valuable bonds within Hispanic-Latino families (Takeuchi, 2011).

FAMILIAL-CULTURAL INTERSECTIONS

Acculturation/Biculturation

An important component of Hispanic-Latino immigrants' family life is the rate and ways in which family members acculturate to American society, and the implications of that acculturation for the family unit. Portes and Rumbaut (1996) proposed that parent-child acculturation styles could be consonant, dissonant, or selective. Consonant acculturation occurs when parents and children experience acculturation together, which in turn is shown to promote family cohesion. Dissonant acculturation refers to the experience of the child acculturating quicker than the parent, often leading to intergenerational conflict and stress, and/or the need for the child to act as a broker between their parents and the host culture. Selective acculturation refers to the process by which a child is considered bicultural, adapting to the host culture, while maintaining significant pieces of their origin culture. (c.f. Lara, Gamboa, Kahramanian, Morales, & Bautista, 2005).

Some studies link higher levels of acculturation to increased levels of substance abuse, and increasingly poor nutritional habits, though other studies associate higher levels of acculturation with increasing perceptions, access, and use of health care (c.f. Lara, et al., 2005). However, recent research has called into question older ways of thinking about acculturation which thought of and measured acculturation levels in uni-dimensional terms. Researchers now think about acculturation in terms of an ecologically complex terrain in which all people make cultural adaptations in multiple directions (e.g., Monzo & Rueda, 2006). By viewing acculturation through a socio-cultural lens, and taking into account the multiple contexts that can impact the acculturation of immigrant families and communities, future research will further help to highlight the ways in which the negative effects of acculturation can be mitigated, while simultaneously working to increase the positive effects.

Brokering

Many children in immigrant families often serve as language and cultural brokers for both their families and other members of their communities. Brokering can have both positive and negative implications for family dynamics and the child development. The effects of brokering are dependent on a number of contextual factors, which include, but are not limited to, parent-child relationship and gender (Dorner, Orellana, & Jimenez, 2008; Love & Buriel, 2007; Weisskirch, 2007).



In the same way that strong parent-child bonds are associated with increased academic achievement and identity development, so too are they associated with positive feelings surrounding brokering. Research conducted by Love and Buriel (2007) suggests that for boys, a strong parent-child bond helps mediate the potential stress involved in language brokering. In addition, the work of Dorner and colleagues (2008) and Weisskirch (2007), suggests that problematic family relationships can lead to negative feelings surrounding brokering activities, which can lead to greater familial conflict, and negative externalizing behavior.

In terms of gender, brokering is considered to be a more common role for females within Hispanic-Latino families (Love & Buriel, 2007). Research indicates that Hispanic-Latina girls are expected to take on more responsibilities at home, compared to their male counterparts, and that language brokering is a component of these responsibilities. As a result, girls report higher levels of brokering, are more comfortable with brokering, and seem to be generally less impacted by brokering because it is seen as a natural part of their familial responsibilities (Buriel, Love, & DeMent, 2006; Love & Buriel, 2007).

When factors align, brokering can have a wide range of positive correlations. Child brokers report feeling more bonded, connected, and in touch with their parents (Buriel, Love, & DeMent, 2006; Love & Buriel, 2007). In addition, brokering can give Hispanic-Latino children a greater sense of autonomy and responsibility, while simultaneously reinforcing the interdependence that is embedded within Hispanic-Latino culture. (Dorner et al., 2008; Love & Buriel, 2007; Weisskirch, 2007). On the other hand, because brokering assumes that the child has acculturated to a mainstream culture more quickly than the parents, conflict can result from differing views regarding responsibility and autonomy (Crosnoe, 2005; Fuligni, Tseng, & Lam, 1999).

Digital Media Implications

Increased access to digital media opens a new set of resources through which Hispanic-Latino families can connect with each other and the world. Research conducted by Katz (2010) explores the ways in which Hispanic-Latino children are using media to broker connections between their families and the community at large. Using an adaptation of Livingstone and Lievrouw's (2005) domestic infrastructure, Katz takes into consideration the artifacts, activities, and social arrangements that impact children's brokering of media within the family. Her research suggests that the lack of access and skills surrounding new technologies remain barriers to increasing connections between immigrant families and the greater community. By increasing access and media literacy skills, children and parents will be able to utilize digital media to connect their families with useful and important resources.

Katz's (2010) research suggests further that the brokering of media can also lead to deepened familial connections and two-way cooperative learning for both parents and children. While children may have stronger technological know-how, parents bring their authority and knowledge of the world to bear on brokering situations, which in turn creates potentially valuable learning opportunities for parents and children alike.

Looking forward, the U.S. Hispanic-Latino population will continue to grow, as will their access to digital media. It is important to find ways to increase opportunities for both parents and children to gain the skills necessary to successfully navigate the digital media landscape. New media has the potential to help scaffold the multi-directional process of acculturation. New digital media may also have the potential to facilitate inter-familial communication across countries and aid academic development among children



whose families are highly mobile due to migrant work or the demands of traveling back to a home country to be with family. As America and the rest of the world becomes a more globally-connected culture, these technologies can help people maintain connections to their own cultures while at the same time helping them connect to and learn from other cultures in which they are immersed.

THE HISPANIC-LATINO EDUCATION ECOSYSTEM

Access to Education and Generational Learning Gaps

Some scholars argue that the recent influx of immigrants with lower educational attainment may account for the observed Hispanic-Latino education gap. Though upward trends of socio-economic progress suggest that each new generation of Hispanic-Latino immigrants will be more successful than the generation before, the demands of an educated society are growing at a disproportionately faster rate than Hispanic-Latino generational growth (Gandara & Contreras, 2009). Notably, patterns in academic achievement differ by sub-culture and dominant language. A study conducted by Rumberger and Larson (1998) showed that in a large urban district, bilingual Mexican-American immigrant students had greater success in school (demonstrated by better grades and more course credit) than their Mexican-American peers born in the United States. Further broken down, estimates suggest that Cuban-Americans outperform White students in college attainment, but Mexican-Americans, who make up about 66% of the Hispanic-Latino population, fare less well in school, as do Puerto-Ricans, the next largest Latino subgroup (Gandara & Contreras, 2009).

Fuligni's 1997 study "The Academic Achievement of Adolescents from Immigrant Families: The Roles of Family Background, Attitudes, and Behavior" found that first and second generation students receive higher grades in math and English than their peers from native families—those Hispanic-Latino children born in the United States whose parents are also U.S.-born. However, the study also reports that only a small portion of their success could be attributed to their socioeconomic background. A more significant correlate of achievement was a strong emphasis on education shared by the students, their parents, and their peers. These psychosocial factors, according to Fuligni, lay the groundwork for further understanding the academic achievement of all immigrant children.

Crosnoe (2005) attributed varying levels of school competence and performance to Hispanic-Latino generational identities. First generation Hispanic-Latinos outperform other Hispanic-Latino students in school, according to Crosnoe, because they remain closer to their families and communities. Third generation students are more likely to be influenced by their peers and while gaining social capital, lose the learning that comes from intergenerational relationships.

Factors Impacting Hispanic-Latino School Achievement

Crosnoe (2005) furthers the work of Fuligni and other scholars by breaking down the factors that contribute to achievement. He categorized the Hispanic-Latino students he studied into four groups, which describe their achievement in and orientation to school: (1) low-achieving and weakly oriented (those who scored consistently negatively across four variables of school attachment and achievement, mostly boys from economically disadvantaged families); (2) low-achieving and strongly oriented (those who liked school but were still low achievers, often younger and from two-parent family homes); (3) high-



achieving and moderately oriented (the highest achievers who liked school but lacked extra-curricular involvement); and lastly, (4) high-achieving and strongly oriented (those who scored above average on all measures of achievement and had six times the extracurricular involvement of other students in the study). Demographically, the fourth group consisted of more affluent families and younger female Hispanic-Latino students (Crosnoe, 2005).

Crosnoe acknowledged the complexity of the school ecosystem for newly-adjusting Hispanic-Latino students: good grades and extracurricular participation were only two small pieces of the overall adjustment puzzle. Crosnoe also paid close attention to the differing relationships among Hispanic-Latino subgroups and achievement, further addressing contextual differences brought about by school size, location, and type. Hispanic-Latino students are more likely to achieve, according to Crosnoe, in areas with more Hispanic-Latino students in general, and in particular, more high-achieving Hispanic-Latino students (Crosnoe, 2005).

One critical factor influencing the educational experiences and achievement of many Hispanic-Latino students is their own and their families' dominant language. In national-level analyses of public school assessments, Hispanic English-language learners (ELL) lag behind their English-dominant Hispanic and White non-Hispanic peers in reading and math proficiency (Hemphill, Vanneman, & Rahman, 2011). Research indicates that bilingualism can constitute a powerful boon for the education and cognitive development of children (Proctor, August, Carlo, & Barr, 2010), however, it seems that many U.S. schools may not be leveraging, sufficiently developing, or maintaining bilingualism among Hispanic-Latino students. Interventions conducted in schools have demonstrated the potential of curricula designed with English language learners' needs in mind (e.g., August, Artzi, & Mazrum, 2010; McLaughlin et al., 2000). One such recent program focused on teaching science concepts and vocabulary in classrooms containing ELL and English-only students (August, Artzi, & Mazrum, 2010). Participating teachers scaffolded ELL students' comprehension by giving definitions of science concepts in English and Spanish, prompting ELL students to consider close Spanish cognates for target words, and also providing multiple visual, oral, and textual representations of those words. Additionally, scholars and practitioners have highlighted a need for more appropriate assessments for ELL students, as those currently used in schools were developed based on the needs and normative trajectories of English speakers (August, 2003).

Many scholars, policymakers, and school reformers suggest that U.S. schools are largely failing Hispanic-Latino students, citing needs for better testing and standards, and more speedy English language acquisition to aid the plight of Hispanic-Latino children. They also suggest raising expectations for Hispanic-Latino students (Gandara & Contreras, 2009; Williams et al., 2007). Valdés (1998) paints a poignant picture of the lives of two Hispanic-Latino immigrants starting school in the San Francisco Bay Area and their experiences in the ESL classroom, highlighting the intricacies of teaching English, the pressure of maintaining language boundaries, and the challenges that come with teachers and students from different backgrounds.

Though schools must adapt to teach the ever-growing immigrant population, schools are not solely responsible for raising the educational attainment of Hispanic-Latino youth. Much of an individual's overall education takes place at home and in the larger community. A literature review led by August and Shanahan (2006) indicated that bridging the differences in social interaction styles and teaching approaches between home and school environments can boost second language learners' engagement, motivation, and participation in the classroom. Further, given that strong existing Spanish language skills aid children's acquisition of English, Spanish-speaking parents can indirectly aid their children's English learning by reading Spanish-language books in the home (e.g., Shanahan, Mulhern, & Rodriguez-Brown, 1995, reported in August, 2003).



Community supports are also critical to the education of Hispanic-Latino children. For example, Villenas (2007) speaks to effects of the diaspora on Hispanic-Latino education. She emphasizes the creative potential of new, mixed, native communities, and underscores the importance of children engaging in social networks to help their parents better form their own Hispanic-Latino identities, networks, and communities.

The Preschool Hispanic-Latino Learner Landscape

According to Espinosa (2005), low-SES Black and Hispanic-Latino students enter kindergarten well below grade level in math and reading achievement. Conversely, White children disproportionately enter kindergarten performing well above the national average. Thus, the cultural performance divide starts early. Espinosa calls for a “culturally responsive curriculum” because the statistics continue to point to staggering differences between young children of low-SES families and high-SES families. For example, high-SES children own three times as many books on average than do low-SES students (Espinosa, 2005).

In arguing that pre-kindergarten should not be a separate, distinct, and unrelated clause in No Child Left Behind, the New America Foundation (Mead, 2007) reported that Hispanic-Latino children in particular have less access to and attend pre-kindergarten at lower rates (a third less) than non-Latino children. One primary reason for this gap is that Hispanic-Latino parents struggle to find these programs because they lack the capacity to navigate the English language. The New America Foundation recommends that the Third Title of NCLB demand a higher percentage of English language learners in high-quality pre-kindergarten programs across the United States and provide scaffolding to help local and state districts achieve this goal (Mead, 2007).

Parental Roles in Education

Research on the roles that Hispanic-Latino parents play in their children’s education has studied workshops, interventions, and other efforts aimed at integrating parents into both the school community and their individual children’s education (e.g., Chrispeels & Rivero, 2001; DeGaetano, 2005). Scholars generally agree that Hispanic-Latino parents have access but decreased means of interpreting their kids’ experiences in school. DeGaetano (2005) conducted a three-year intervention to help Hispanic-Latino parents gain an understanding of cultural capital within the school system and an increased knowledge of the functions of their children’s schools. By the end of the third year, DeGaetano found that parents were beginning to take a more active role in their children’s school experiences and more specifically, in the time spent learning at home.

Similarly, Chrispeels and Rivero (2001) studied the placement of Hispanic-Latino parents in eight parent education classes at the Parent Institute for Quality Education (PIQE). The classes allowed the parents to explore their perceived roles in their children’s education and provided them with the opportunity to learn more about the U.S. educational system as a whole. This study, as well as DeGaetano’s (2005), have illustrated the positive impact of attending to the process of parent-to-school assimilation and of providing parents with the opportunity to acquire knowledge about the education system on behalf of their children’s school experience. Further, they suggest that as parents gain deeper awareness of resources available and the potential impact they can have on their children’s academic success, the more involved they will become in their children’s educational and intellectual development.



Digital Media Implications

The challenges of addressing individualized learning styles—considering culture and background in school learning—and connecting school and home learning, are not new or Hispanic-Latino-centric issues. As the focus of American education shifts towards models of blended and online learning, we should ensure that Hispanic-Latino families and communities have equal access to quality online learning materials, opportunities, and training. These strides are particularly needed in light of the potential for digital media to aid ELL youth and their parents in gaining English proficiency. As August (2003) points out, these technologies can be used to teach English language skills, particularly in light of their inherent appeal with youth; ability to simultaneously convey redundant visual, oral, and textual information; and capacity to target the unique needs of specific learners. Furthermore, assessments that measure and track learning can be embedded within digital media themselves, offering additional advantages.

Scanlon and Buckingham's (2004) work suggests the importance of focusing on learning that takes place at home and in other contexts outside of school. They conclude that the commercialization of out-of-school learning further exacerbates the digital divide by allowing more affluent parents to devote greater resources to their children's education to get ahead, while lower SES families cannot afford this supplemental learning. Since 2004, thanks to the growth of new tools, knowledge communities, and user-generated content on the Internet (e.g., YouTube, Kahn Academy, etc.), free learning opportunities are becoming increasingly available to families with a home Internet connection or a smartphone. Clark (2011) suggests that though the digital media environment poses risks, it may also offer a place for parents to engage with their children "in activities that foster strengthened interpersonal relationships, individual and collaborative creativity, and even cognitive development" (p. 335).

Hispanic-Latinos with lower levels of education and English proficiency remain disproportionately disconnected from the Internet, according to surveys by the Pew Hispanic Center (see Fox & Livingston, 2007). Of the 10% of Hispanic-Latinos who have a college degree, 89% go online, and of the 50% of Hispanic-Latinos with a high school degree, 70% go online. The percentage of Hispanic-Latinos online who drop out of high school drastically decreases to 31%. The stark difference between the percentages of well-educated Hispanic-Latinos who go online versus those with lower levels of education speaks to the importance of Hispanic-Latino Internet access while also touching on aspects of motivation and learning in the Hispanic-Latino community (Fox & Livingston, 2007). This can be partially accomplished by creating more uniform access to the Internet and to online learning opportunities at a young age. If families do not have Internet access at home, schools and other community centers can play a part in making computer labs accessible during and after school hours.

HISPANIC-LATINO CULTURE AND OLD MEDIA

A History of the Struggle for Quality Hispanic-Latino Television Programming

According to Moran (2007), the Federal Communication Commission is concerned with serving the educational needs of Hispanic-Latino children. In March 2007, the FCC sued Univisión, the leading Spanish-language network in the United States, for not complying with the Children's Television Act (CTA), which states that children's programming must be educational and informational. This was not the first confrontation of the negative stereotypes and incorrect portrayals of Latinos in mainstream media. Wible (2004) chronicled past actions and embargos Latinos ran against popular networks backed by the NAACP



and the National Council of La Raza (NCLR). NCLR has in the past, through demonstrations, demanded authentic portrayals of the Latino demographic and economic landscape.

Organized outcries like these have been important strides toward improving children's television programming. For example, Nickelodeon's *Dora the Explorer* took a key step in making Hispanic-Latino characters more mainstream within U.S. entertainment and media culture (Moran, 2007). Scholastic also played an important role in educational entertainment targeted toward Hispanic-Latino children with *The Misadventures of Maya & Miguel*, two U.S. born English-speaking characters with a recent immigrant cousin who is an English language learner. *The Misadventures of Maya & Miguel* has been commended for its realistic portrayal of the Hispanic-Latino child experience and for its noble focus on literacy, particularly expanding vocabulary. *Sesame Street* has been a longtime exemplar of inclusion by featuring regularly appearing Hispanic and Black characters such as Maria, Gordon, and Luis, and focusing story segments on being different from one's peers. Moran (2007) concludes that the portrayal of positive interactions among diverse children is one of the most important values television can add to Hispanic-Latinos' media consumption experiences.

Although progress has been made within the Latino television landscape, there is still plenty to be concerned about. Despite an increase of the representation of Hispanic-Latino characters in the last 10 years, mass media does not represent close to the actual percentage of Hispanic-Latinos in the United States and consistently portrays Hispanic-Latino characters as having lower status occupations (Children Now, 2004; Rivadeneyra, Ward, & Gordon, 2007). In Rivadeneyra's prior study in 2001, she found a correlational relationship between watching these negative portrayals on TV and poorer academic performance among Hispanic-Latino high school students.

Digital Media Implications

Shows like *Dora the Explorer*, *Maya & Miguel*, and *Sesame Street* are important to develop and maintain as they deeply impact how children view themselves in America and their relationships with other children that are both similar and different from them. In fact, these more realistic portrayals of the Hispanic-Latino coming-of-age experiences in America could be translated to webisodes, YouTube videos, apps, and other newer forms of media since youth are increasingly spending time on these platforms.

Wide availability of new media exposes more diverse information regarding Hispanic-Latino children and parents, compared to limited representations in television programming. Furthermore, many sites now make it possible for youth to produce and share their own content, enabling Hispanic-Latino youth to contribute actively to their own wider cultural representations in the online realm. Alternatively, greater access to new online channels makes traditional media content readily available and therefore the stereotypes that do exist from old media are nearly universally accessible. For example, if children access television programs through an online provider (e.g., Hulu, Netflix) existing stereotypes may be further reinforced.

Through a series of focus group sessions, Leonardi (2003) surveyed 78 Hispanic-Latino adults on their use of cell phones, computers, and, specifically, the Internet. He emphasized that new media is not homogeneous and yet in the current literature there exists a lack of differentiation between what you can do on computers, the Internet, and with cell phones. The Hispanic-Latino adults surveyed, in fact, viewed cell phones as enhancements of cultural communicative values and computers as posing a threat to those values. Leonardi's analysis highlights that economic factors cannot solely account for the digital divide; cultural factors also influence people's choices around digital media use.



The Internet is controversial among parents because it is at once a bastion of risk, while it simultaneously holds great educational potential (Clark, 2011; Livingstone & Bober, 2006; Tripp, 2011). Compared to old media like television and video games, new media platforms yield discovery and the exploration of unknown virtual territory. When Hispanic-Latino parents claim to have little computer knowledge, this inhibits their ability to control what their children do online, further underscoring the need for initiatives to help parents become more comfortable with the technology their children are increasingly using (Tripp, 2011).

Hispanic-Latino families, like those of other ethnicities, should be exposed to material emphasizing critical consumption of online information. This could be accomplished by introducing parents to sites that rate online learning sites for their children and that can assist parents in contributing to these sites. Though television remains the most popular form of media consumption, the steady shift towards computer, tablet, and cell phone use will prompt greater universal access to learning opportunities if we keep the channels of knowing and understanding the resources out there open to new immigrant families and communities.

CONCLUSION

Coll and colleagues (1996) have proposed an integrative model for studying the development of minority children that takes into consideration the larger contextual factors that are so critical to shaping human development and learning:

Social stratification deriving from prejudice, discrimination, racism, or segregation and the differential access to critical resources such as good schools, employment, and health care influence families and children of color to develop goals, values, attitudes, and behaviors that set them apart from the dominant culture. This adaptive culture is the product of the group's collective history (cultural, political, and economic) and current contextual demands posed by the promoting and inhibiting environments. (Coll et al., 1996, p. 1904)

By using an integrative framework to approach future research on and work with Hispanic-Latino communities with regards to digital media, researchers, policymakers, and developers will be better able to address the needs of a wide range of Hispanic-Latino communities in America. Just like the other critical resources mentioned in this review, the lack of access and/or skills surrounding the use of digital media may lead to widening educational and social gaps for Hispanic-Latino youth and their families. On the other hand, with increased access, skills, and appropriate content for respective communities, digital media could promote learning, community engagement, intergenerational connections, and other positive outcomes.

Our hope with this incomplete but illustrative scan of pertinent literature is to provide some relevant background and fuel participant discussion at the Hispanic-Latino Families and Digital Technologies Forum on June 8, 2012, in Washington, DC. Goals of the forum include (a) convening a cross-disciplinary leadership group of scholars, policymakers, and practitioners to discuss issues related to digital media and technology that are of importance to Hispanic-Latino families and children; (b) identifying gaps in knowledge on these topics; and (c) determining an agenda for future research, program development and media design to help address pressing community needs.

In pursuit of these goals, we propose that discussion address the following key questions:

- What is the overall context for Hispanic-Latino families' interactive technology and media use? How are Hispanic-Latino families using media to learn, play, and communicate?



- How are patterns of Hispanic-Latino family digital media use distinct or different? What do Hispanic-Latino families have in common with other families in this regard?
- How do Hispanic-Latino parents access and use technology themselves? In shared spaces with their children?
- Are there practices of interactive technology and media consumption among Hispanic-Latino families that are cause for concern? Are there practices that appear to mobilize opportunities for learning and healthy child development?
- Where are the gaps in our knowledge that must be filled to better serve Hispanic-Latino families?

In seeking to address these and other questions, we hope further that the full family ecosystem will be considered when conceptualizing and describing the role of digital media in Hispanic-Latino family life and learning. By calling attention to the full ecosystem of varying Hispanic-Latino communities in America, we as researchers, policymakers, and practitioners can work to harness the power of digital media to help Hispanic-Latino families overcome the challenges that their communities face and build from their considerable assets to promote higher achievement and social supports.

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APPENDIX B

VISION PAPER 1: DIGITAL TECHNOLOGIES, RESEARCH, & VULNERABLE HISPANIC-LATINO FAMILIES

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Hispanic-Latino Families and Schools

For many Hispanic-Latino immigrant families, the schools to which they send their children in this country are unknown and complicated worlds. Their expectations about what their children need to do in order to succeed in American educational institutions are often based exclusively on their own school experiences in their home countries, on the experiences of members of their families who have been here longer, and on the information they may or may not receive from the schools themselves. Even after many years in the country, Latino immigrant mothers often struggle to make sense of the ways in which the educational system works and of the best ways to inform themselves about the opportunities available for their children. What is clear from existing research on Latino families and schools (Chavez, 2007; Garcia, 2001; Hernandez, Denton, & Macartney, 2007; Valdés, 1996; Zentella, 2005) is that, contrary to claims that are often made by school personnel, many, if not most, Latino families value education highly. They want their children to succeed in school in order to prepare for rewarding and productive lives.

Hispanic-Latino Families and Schools: A Need for Information

Unfortunately, despite their values and aspirations, school achievement is all too often an elusive goal for many Hispanic-Latino children (Fry & Center, 2010). There is much disagreement, however, about the causes of the Latino achievement gap. Scholars (Barton & Coley, 2009; Reardon, 2011) have identified a number of school and non-school factors that impact on achievement, including: teacher preparation, teacher experience, class size, low birth weight, hunger and nutrition, and income inequality. It is generally agreed, however, that in spite of the multiple factors that impact school achievement, family involvement or family participation in schools is important (Ferguson, 2008). While there is debate about the effectiveness of particular forms of family involvement and family education programs (Fan & Chen, 2001; Ferguson, 2008; Lareau, 1996, 2000; Mattingly, Prislín, McKenzie, Rodriguez, & Kayzar, 2002), it is certainly unquestionable that information about education that will allow them to support their children is essential for all families.

The Role of Media in Providing Information to Hispanic-Latino Families

Given the ubiquitous presence of media in the everyday lives of individuals, there have been an increasing number of efforts by various types of organizations to reach Hispanic-Latino families using radio, television, cinema, internet, and mobile. Recent media initiatives designed to reach out to Hispanic-Latino families, for example, include the Family Toolkit on the National Center for Family Literacy (www.familit.org) website, the College Bound program from GreatSchools.org (collegebound.greatschools.org) and Univision's Es El Momento (vidayfamilia.univision.com/es-el-momento). Such initiatives hope to capitalize on Latino media use patterns (traditional and digital) as effective ways to provide information and engage Latinos in the education of their children. Latinos are known to be heavy users of traditional media, spending an average



of 5 hours per day watching television (Nielsen, 2012). Latinos are also adopting new digital media as well. For example, broadband Internet use at home is growing (up 14% to 62% as compared to the 6% growth in the general population). Mobile access is also exploding with 60% of Latino households owning at least one smartphone, compared to 43% of non-Latinos (Nielsen, 2012). Moreover, 78% of Latinos report using text messaging on a daily basis. Such growth suggests that new media are increasingly effective channels for reaching this population.

Reaching the Most Vulnerable

In spite of the success of many efforts and initiatives to reach the Latino population, ongoing work on the most vulnerable group of Hispanic-Latino families (newly arrived, poorly educated, unskilled, rural origin, indigenous background) (Burke, 2004; Fox, 2006; Schmidt, Crummett, Fox, & Rivera-Salgado, 2004; Vaughn, Dzidzienyo, & Oboler, 2005) suggests that much careful thinking needs to be done in using media to reach such families because their levels of technology and media literacy are often very low, even when access is available. We maintain that it is vitally important that attention be given to reaching the children of these vulnerable newcomers. Isolated as these new immigrants may be, media has the potential of reaching them and of making a difference.

In the section that follows, we present an initial set of research questions and commentary that are meant to provide a road map for organizations and researchers that are committed to family literacy and family-school partnerships and want to explore the uses of media with more marginalized Hispanic-Latino populations.

Research on Media Design for Working with Vulnerable Hispanic-Latino Immigrants

In considering using media with newly arrived, low literacy, rural origin, and indigenous background immigrants, a research agenda must focus on issues such as the following:

1. In what ways are vulnerable, newly-arrived Latinos different from established second and third generation Hispanic-Latinos?

We hypothesize that most vulnerable Hispanic-Latinos: (1) have little education and low levels of literacy; (2) know little about schools—anywhere; (3) have misinformation about American schools gleaned from family members, neighbors, and others; and (4) have deep beliefs about the appropriate role of parents in rearing children. We need much more information about the everyday lives of these families. Where and how do they live? How do they make sense of their children's worlds? How much can change in their everyday practices and how quickly? What are the consequences of such changes on fragile family ecologies?

2. Which media channels will be most effective in reaching this group of Hispanic-Latinos?

It is very likely that multiple media channels are going to be most effective. Creating media that is easily accessible via mobile phone may become more and more central for reaching all Latinos, but it is important to conduct research on use of traditional channels, print, and videos/DVDs on these new groups of Latinos. In particular, research must focus on identifying the best medium for different messages for these individuals. We need information about whether, for example, a vehicle like text messaging can communicate certain information better than audio or video. We need to determine whether hypotheses about the superiority of text messaging for short tips and reminders can be verified empirically.

**3. What are the essential message(s) that need to be communicated to this audience?**

Research must be carried out that identifies essential messages and desired outcomes for this population. We can hypothesize that messages aimed at these busy parents should be focused and to the point, but we need to determine exactly what such parents need to learn first, as well as what they should be able to know and/or do as a result of listening/viewing messages. Is the information and the ordering of the information currently provided to more integrated and established Latinos appropriate and or relevant given a vulnerable parent's daily experience? What are the first challenges that indigenous origin rural Mexicans face? What kinds of information will be helpful?

4. What kinds of language best communicate desired messages?

Using Spanish-language materials or providing a Spanish-language option on English-language websites is well established. We hypothesize, however, that for vulnerable Latinos, additional sensitivity to regional/social varieties of Spanish is essential. Research needs to be conducted on whether, and to what degree, for example, rural origin Mexican immigrants who are primarily speakers of an indigenous language and second-language speakers of Spanish, will understand speakers of other regional varieties of Spanish (e.g., Dominican, Puerto Rican, Cuban) used more frequently on the east coast of the United States. Research also needs to be conducted on the ways in which rural-origin immigrants with little education respond to formal institutional Spanish spoken by highly-educated speakers as opposed to colloquial everyday informal language more typical of rural areas.

5. How can media be personalized for this population?

Today's new media is focused on creating a personalized experience for their audience. Amazon has book recommendations, iTunes has Genius suggestions, and other websites work to present information, products, and an overall experience that feels tailored to an individual's interests. This approach makes excellent sense for both business and informational initiatives. Indeed, good media design today must consider how to create a more relevant, personalized experience for its audience. In the case of vulnerable Latinos, research needs to be conducted on the ways in which cultural relevance is part of personalization. Mainstream messages often do not resonate and need adaptation or, better yet, rethinking. We need to investigate how to adapt these messages and whether such personalization means helping parents very narrowly, that is, with their children, their situation, and their issues. We hypothesize that general messages about the importance of getting involved at school will be less effective than strategies that will address specific issues with which parents and children are struggling.

Looking Toward the Future

The distances that must be traveled by vulnerable Hispanic-Latino populations in this country are many. There is much that they must understand and negotiate if they are to succeed. Those of us committed to developing resources that families bring with them and to supporting them as they acquire the competencies they need to do well in this country must engage in systematic research that will allow us to enhance the potential of media to reach them in significant ways.



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APPENDIX B

VISION PAPER 2: LANGUAGE MINORITY CHILDREN ECLS-K ANALYSIS: FOCUS ON TECHNOLOGY USE (LM:FOTU)

Linda M. Espinosa, PhD and James M. Laffey, PhD

PREFACE

This study focuses on language minority children's (LM) access to and use of technology and how it may differ from English-only children. The study also examines how children's language status and access to technology influences school achievement, including rates of reading and mathematics ability growth over time. In addition, the influence of social class on access to and use of technology for language minority children is examined.

The project utilizes data sets from the Early Childhood Longitudinal Study of Kindergarten Children (ECLS-K). The ECLS-K data set represents a base year data collection of kindergarten children (1998-99) and follow-up surveys in the first and third grades. The ECLS-K is a nationally representative sample of kindergarten children and their teachers and schools. Information was collected from children, their families, their teachers and their schools from districts all across the United States. This report presents analyses of technology use by language status from the ECLS-K data set. A variety of statistical procedures are used to represent the distributions of data and make comparisons across group types and over time.

This is one of the first reports available to use the longitudinal data (K-3) of the ECLS-K data set to examine change across times in repeated measures for cognitive development. This study tests the potential of building a growth curve model for the contribution of technology and language status to reading and mathematics achievement from kindergarten to third grade.

Language Minority Children in ECLS-K

Throughout the U.S., the academic achievement levels, high school completion rates, and college attendance rates of English-language learners remain markedly below that of their Caucasian, English-speaking peers. There is a growing and convincing body of research that high quality early childhood education can improve the educational achievement of children from diverse linguistic and cultural backgrounds and help to reduce this achievement gap before kindergarten (Barnett, 1995; Currie & Thomas, 2000).

Research reveals dramatic differences in young children's achievement in mathematics and literacy by race, ethnicity, and socioeconomic status (SES) at school entry (Lee & Burkam, 2002). A recent national report, *Inequality at the Starting Gate*, which includes analyses of the ECLS-K data set, demonstrated that race/ethnicity and social class are closely related in the United States and that most children from minority households enter school with a double disadvantage (Lee & Burkam, 2002). Examining this nationally representative sample of over 16,000 children and families reveals the close connections between race/ethnicity and social class; children who are Black or Hispanic are much more likely to be in the lowest SES quintile than White children. On average, low-SES Black and Hispanic children enter kindergarten more than half a standard deviation below the national average in math and reading



achievement, while high-SES White children score far above the national average in math and reading (Lee & Burkham, 2002). Unfortunately, the Lee and Burkham (2002) analysis did not examine the home language or fluency of the child but focused mainly on racial/ethnic and SES variables.

Technology and ECLS

Technology use by young children has become prevalent (DeBell & Chapman, 2005) and can be linked to improved achievement (Clements & Sarama, 2003; Clements et al., 1999a; Salerno, 1995). A number of researchers have found that computer technology use by young children can have positive learning benefits. In early research Cochran-Smith, Kahn, and Paris (1988) found children's writing abilities could be enhanced with technology. Hess and McGarvey (1987) found improved achievement in mathematics, problem solving, and scientific skills among children who had computer-learning opportunities. As Doug Clements (1999b) has pointed out, computers offer unique advantages in teaching "through exploration, creative problem solving, and self-guided instruction" (p. 95). Others (Laffey, et al., 1998) have argued that technology can act as a scaffold to the process of learning so that the student builds habits of mind and attributions of success for those learning performances. Much like training wheels on a bicycle, technology can be used to scaffold novice cognitive efforts until they become habits.

Quite often when examining the impact of technology on learning, we restrict the analysis to computer technologies. These computer technologies are relatively new and rich in the forms of media and interactions they can support, and thus attract our attention. But, for the current report we take a broader view of technology to include various forms of media, including books, tapes, and television. These various media may support language development and just as we argue that computer technology can both scaffold performance and provide alternative teaching approaches, so can these various media. For example, a young child in a non-English speaking household may learn English words by watching well-designed TV. Similarly, a school without a staff member who can speak a child's native language may be able to provide some forms of instruction by using audiotapes or digital forms of the child's home language.

The ECLS-K data set provides a picture of access and use of technology in the home and school for young children and can be used to show the relationship of that access and use to academic achievement over time. One study by Judge et al. (2004) shows some differences between kindergarten and first grade, public and private schools, and high and low poverty schools in young children's access to and the ways they use computers. The Judge et al. (2004) analyses did not include the language status of the child, nor did they examine possible relationships between technology access and use and children's development over time. These previous analyses show that while there is much to learn from the ECLS-K data set, there are also limitations. The database does not include specific information about the quality of young children's computer use or about the type of software used. Judge, et al. (2004) further points out that the school and classroom indicators provide overall levels of resources available, but they do not provide direct information about use by the sampled children.

Access to Technology Varies by Race

Surveys in the last decade have documented disparities in computer ownership and Internet use by race and ethnic status (Fairlie, 2002; U.S. Department of Commerce, 2002). These data show that only 29.3% of African Americans and 23.7% of Latinos use the Internet compared to 50.3% of White, non-Latinos (U.S.



Department of Commerce, 2002). Using the Computer and Internet Use Supplement to the August 2000 Current Population Survey (CPS), Fairlie (2002) estimated that Mexican-Americans are half as likely to own a computer and one quarter as likely to use the Internet at home as are White, non-Latinos (Fairlie, 2002). Differences in income by race also influenced this disparity in home computer and Internet use. Fairlie (2002) also found that the language of the home made a large difference; Mexican-Americans in Spanish-speaking households are about half as likely as Whites to own a computer or use the Internet. However, he did not find that price or school differences helped to explain the disparities across racial/ethnic groups and computer and Internet use.

CURRENT REPORT

This report presents an examination of the ECLS-K data to describe technology access and use by language minority (LM) children. The report further analyzes the influence of technology access and use on young children's achievement and how that influence varies by language status. For this report, we provide several definitions of language minority children based on available data. The report also defines technology access and use in school; defines technology access and use in the home; provides descriptive statistics for the variables of interest across three points in time, spring of kindergarten (K), spring of first grade (1), and spring of third grade (3); compares LM and English-only children on targeted variables; and presents an HLM analyses of cognitive growth over time.

The key questions addressed in this report are:

1. What is the status of technology access and use in homes and in schools for language minority children?
2. Are there differences in access and use of technology in homes based on language minority status (at different age levels)?
 - Comparing language minority children's access and use with English-only children;
 - Comparing language minority children's access and use based on home language (e.g., European, Asian languages, and Spanish);
 - Comparing language minority students' access and use based on English language proficiency (above and below cutoff on English OLDS test).
3. Are there differences in access and use of technology in school based on language minority status (at different grade levels)?
 - Comparing language minority students' access and use with English-only students access and use;
 - Comparing language minority students' access and use based on home language (e.g., European, Asian languages, and Spanish);
 - Comparing language minority students' access and use based on English language proficiency (above and below cutoff on English OLDS test).



4. What is the relationship among students' language status, access to technology in school (at different grade levels), and students' reading and math achievement?
 - See comparative factors for "in schools" above.
5. What is the relationship among students' language status, access to technology in the home (at different age levels), and students' reading and math achievement?
 - See comparative factors for "in homes" above.
6. What is the relationship among students' language status, access to technology, and students' rates of reading and math ability growth across time?

Language Minority Status and SES

The LM children represented in the ECLS-K data set are more likely to be in low SES homes and less likely to be in high SES homes than their English-speaking counterparts. However, the general language status definition masks distinctions within the LM cohort; more Spanish-speaking homes are in the lowest SES and Spanish-speaking homes have the largest representation in the LM sample. Asian speaking homes have lower average SES than English-speaking homes but also have a greater percentage of high SES homes. In general LM children from European-speaking homes have the highest SES of all the language types. In addition, one of the most striking features of the ECLS-K data on LM children reveals that Spanish-speaking children who score below the cutoff for the English OLDS test are overwhelmingly found in the first or second quintile of SES (80%). These are children who do not have basic fluency in English, speak mostly Spanish in the home, and are living in poor or near poor households. While this analysis did not ask about their fluency in Spanish, which is their home language, that is one of the questions that needs to be asked. We know that these children are living in reduced economic circumstances and have not mastered simple English vocabulary; we do not know the level of their first language development.

Children who live in homes with higher incomes and a higher parental education level tend to have more access to computers, computers with Internet access, and books. Children in higher SES homes also watch less TV overall and fewer watch programs like Sesame Street. In contrast, the availability of technology at school varies little by SES. However, high SES children tend to use the computers less often for math and reading at K, 1, and 3 than their low SES counterparts. More high SES children are rated as being proficient with the computer for a variety of purposes at all three points in time. These differences are particularly striking between the children in the first SES quintile and those in the fifth SES quintile.

Technology Access and Use in the Home

A greater percentage of English-speaking families than language minority families reported that they used a computer at home at all three points in time, 59% vs. 39% in kindergarten, 69% vs. 51% at grade 1, and 83% vs. 67% at grade 3. However, the number of families who use a computer more than three times per week, or for teaching purposes, or who use a computer at home with Internet access does not vary greatly by language status. English-speaking homes do report a higher percentage of access to the Internet than LM homes during the third grade year, 88% vs. 79%. English speaking families also



report substantially greater numbers of books in the home at kindergarten (80 vs. 45), first (111 vs. 63), and third grades (132 vs. 81) than LM families. In contrast, considerably more children from language minority homes watch *Sesame Street* (72% vs. 60%) and they watch more TV every day than children from English speaking homes, (3 hours vs. 2 hours daily).

When language type is considered, the findings show that a substantially greater percentage of English-speaking families report that they use a computer at home than Spanish-speaking families at K, 1, and 3 (59% vs. 31%, 69% vs. 43%, and 83% vs. 60%). The percentages of families who report they use a computer at home to teach do not differ greatly among the languages spoken at K, 1, and 3, but English-speaking families report more Internet access at grade 3.

The amount of book access and use in the home does vary by language type. There are more books in the home for English-speaking and European-speaking families than either Asian or Spanish-speaking families at K, 1, and 3.

It is of note, that even though Spanish-speaking homes have fewer books, the amount of time spent looking at picture books in K and reading a book in the past week at K, 1, and 3, although favoring the English-speaking homes, does not differ greatly between Spanish-speaking and English-speaking homes.

English-speaking and Spanish-speaking children who pass the English OLDS screener are more likely to use a computer at home by more than 25 percentage points over Spanish-speaking children who do not pass the English OLDS screener. Spanish-speaking children who do not pass the OLDS are much less likely to have Internet access at home than those who do. This finding is consistent with the Fairlie (2002) study that found Mexican-Americans in Spanish-speaking homes to be about half as likely as Whites to own a computer or use the Internet. There are even more dramatic differences in the number of children's books available in the home for children who do not pass the English OLDS at all three time points; English-speaking children and Spanish-speaking children who have basic English fluency have three to four times the number of books in the home as Spanish-speaking children with limited or no English fluency. All of the other variables relating to access and usage of books also favor the English-speaking and children with basic English fluency from Spanish-speaking homes. Again, these differences could be mirroring the SES discrepancies between Spanish-speaking children who pass the OLDS and those who do not.

Achievement Scores

Using a computer at home and using it with the Internet are positively correlated with reading and mathematics achievement at K, 1, and 3. Interestingly, using computer programs at home that teach is not positively related to reading scores and is negatively related to math scores. The number of children's books in the home, as well as how often the child reads books, are both positively related to reading and mathematics achievement. Watching TV is negatively correlated with reading outcomes.

The only school technology variable that shows any substantial correlation with reading and mathematics achievement is proficiency with the computer. Having adequate computers, media, and a library has a modest and positive correlation with math achievement at K, 1, and 3.

There is a strong positive relationship between achievement as measured by the IRT scale scores and socio-economic status. Each step up in the SES quintile is accompanied by a higher achievement score.



When compared by language status, English-speaking children show an achievement advantage in reading and mathematics over LM children. The advantage is shown to be more nuanced when the LM children are considered by their language type. In general children from European and Asian speaking homes do as well or better than their English-speaking counterparts. On average, children from Spanish-speaking homes are behind all other language groups. The difference is pronounced when the achievement scores of the Spanish-speaking children who score lower than the cutoff are compared to the English-speaking children or to the Spanish-speaking children who score above the cutoff.

Influence of Technology and Growth Model by Language Status and Proficiency

Two-Level Hierarchical Linear Growth Modeling (HGLM) was used to determine the degree to which individual characteristics affect children's growth.

English speakers did not differ significantly from non-English speakers in terms of final math achievement nor math achievement growth. However, English speakers had significantly higher reading growth rates than non-English speakers, on average. Spanish speakers who failed the English OLDS had significantly lower final math and reading achievement scores than English speakers, on average, but did not differ significantly for achievement growth across time.

As expected, socioeconomic status was positively and significantly related to final math and reading achievement and achievement growth rates in both areas.

Using the computer to get on the Internet is associated with higher final math achievement scores but not higher growth rates. Computer proficiency is associated with math achievement and math growth across time. Computer proficiency is associated with final reading achievement but not with reading growth across time.

The number of children's books at home was a significant predictor of both final math and reading achievement and growth. Similarly, children who watched fewer hours of television at home had higher math achievement and growth rates.

CONCLUSION

In conclusion, the relationship of home technology (computers, Internet, and books) access and use with achievement for language minority children is clearly positive. This relationship, however, is highly co-related with the influence of SES on achievement. Few differences in technology access and use are found at the school when comparing classrooms attended by children of different language status or type. The variable of computer proficiency at school seems to be a target for further understanding the role of technology in achievement. Computer proficiency is associated with achievement. However, few students are seen as proficient and the number decreases from K to third grade. The decrease in computer proficiency from K to third grade is partially explained by changing demands or expectations for what is considered proficient. It is troubling, though, that children's computer proficiency is not staying current with school expectations, especially since computer proficiency is a significant variable for explaining math and reading achievement in both HLM analyses. This suggests that becoming proficient on the computer for school purposes may aid in a child's academic achievement, but this



skill may not be sufficiently supported even though most young children have computer resources in their schools.

The role of home language and technology access and use also needs more in-depth examination. The ECLS-K data set did not ask about the language of the books in the home, or the type or language of software available in the home, so we do not know the extent to which lack of access to technology in the home for children who do not pass the OLDS reflects a language barrier or limited economic resources. As computers and other types of technology become more widely available in multiple languages, this may be an important instructional tool for LM children. A study by Fairlie (2003), which analyzed the Computer and Internet Use Supplement to the Current Population Survey, found that home computer access and use is associated with staying in school among adolescents who have not yet graduated from high school. Having access to a home computer may have a unique contribution to children's academic achievement over time.

There are also limitations in the ECLS-K data set. While the large national sample allows for a detailed profile of many aspects of young children's early schooling experiences and characteristics of their home life, it does not capture in-depth information about the quality of children's technology use, the languages of the media, nor the specific school technology experiences of the individual children sampled. There are also some surprising findings that suggest parents may not understand the survey questions in the way they were intended. For instance, it is difficult to explain the comparable rates of using a computer at home for teaching purposes between Spanish-speaking households where the child did not pass the OLDS and English-speaking households when they report using a computer at home roughly half as often. It is possible that some of these results may be due to social desirability; that is the parents believe that the use of computers at home to teach is a desirable trait, and so may over-report this practice. This type of response bias may also be evident in the teachers' and administrators' responses, but since there was no independent verification of the practices reported, it is impossible to know.

In conclusion, the findings of this analysis provide evidence of the potential for technology in the academic lives of LM children. While schools generally have comparable levels of technology resources across all language types and using computers in schools does not appear to have much influence on differentials between children's math or reading achievement, the child's level of computer proficiency in kindergarten does seem to be an important skill that is directly related to academic achievement, especially in math. As more and more children have access to computers at younger and younger ages, computer proficiency may prove to be an important learning skill that expands LM children's access to the school curriculum.

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APPENDIX B

VISION PAPER 3: UNDERSTANDING LATINO FAMILIES ON THEIR OWN TERMS

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There is a great deal of scholarly and policy interest in Hispanic-Latino families in the United States—as well there should be. Recent estimates indicate that one in four U.S. children lives in an immigrant household, and the majority of these children—one-third—have at least one parent who was born in Mexico (Dinan, 2006; Urban Institute, 2006). Furthermore, the Pew Hispanic Center forecasts that by 2050, one in three Americans will be of Latino descent (Passel & Cohn, 2008).

The current and growing significance of Latino immigrants and their children to U.S. society implies both exciting and urgent needs for research in many areas, including how media connections relate to family life and to various forms of literacy. Indeed, given the centrality of literacy—including reading, writing, and speaking proficiencies (in multiple languages), as well those required for connecting with traditional and new media—how Latino family members communicate and learn with each other directly impacts critical social outcomes like educational attainment, access to health care, and other resources and services.

Our current understandings of media use in Latino families are limited to a handful of studies, despite the burgeoning research on media use in families more generally. A recent publication by Takeuchi et al. (2011) at the Joan Ganz Cooney Center notes:

As is so common with research in many areas, the bias has been toward the study of middle-class families. That leaves an incomplete picture of other families, including lower-income families... immigrant and/or multi-lingual families. As we know decisively from anthropology and the other cultural sciences, everyday life differs greatly among American families. As well, a lack of direct research on these families sometimes invites stereotypes.

Their observations underscore several important implications for researchers. I explore three in depth below, as a hopeful challenge to future research endeavors in this arena

Unpacking “Latino” Diversity

The most basic challenge to conducting high quality research on Latino families is that we must move beyond the umbrella term, “Latino.” The term presumes some sort of uniformity in the experiences of the largest “minority” group in the U.S., which is belied by the internal diversities of this population related (but not limited) to immigrant generation, country of origin, residency status, language proficiencies, and socioeconomic status (Katz, Ang & Suro, 2012).

Given these important distinctions, I note at this point that most of my own research has focused on families headed by immigrant parents, and primarily on those of Mexican origin¹. These families face a number of

¹ Some parents who have participated in my research have been from Guatemala, El Salvador, or Nicaragua, though they were living in primarily Mexican communities and in almost all cases, they had a Mexican spouse or partner.



particularly difficult challenges, even when compared with immigrant parents from other countries of origin. These include higher likelihood of unauthorized residency status than any other group, limited formal education, and a higher risk of living in poverty than other families in the U.S. (Fortuny, Capps, Simms, & Chaudry, 2009; Passel & Cohn, 2011; Yoshikawa, 2011). All of these factors have direct, enduring influence on their family relationships, their media connection patterns, the time they have to spend with their children, and their experiences with resources they need to thrive in their adopted communities.

That limited research has been conducted on “Latino” families and their media patterns makes it easier to miss these kinds of demographic diversities and, as Takeuchi and colleagues (2011) emphasize in the above quote, to unconsciously resort to stereotyping. One of the most common manifestations of this tendency is resorting to “cultural” explanations for differences between their media connections and practices and those of middle class, white families (Livingstone, 2002; Livingstone & Bovill, 2001)². Due to limited research on low-income families in general, it is difficult to ascertain whether such differences are explained by constraints like education or economics—so it is telling that “cultural” explanations are invoked more often than these factors when researching families of color.

On the other hand, since “culture” is implicitly invisible in middle class, white families, other families are, in effect, held against a standard of “normal” that inevitably casts their practices as non-normative. Such framing has serious consequences when these parents’ media surveillance, literacy development, and related practices diverge from mainstream expectations of “appropriate” parenting strategies.

“Cultural” explanations have two additional downsides. First, these explanations are too broad to help researchers identify the specific processes that result in particular family social arrangements or decision-making processes. Second, essentializing “culture” makes these traits or behaviors appear unchangeable, which implies little room for skill-building interventions that can enhance families’ abilities to engage media to address their goals.

For all these reasons, it is imperative that we move beyond “cultural” explanations for variation among families. Furthermore, we must move beyond umbrella racial/ethnic designations like “Latino” to be able to accurately document how the intersections of families’ lived realities—financial, occupational, educational, and so on—are brought to bear on their media practices and family relationships, on their own terms. By doing so, we can avoid holding them against an invisible standard of normality that constrains our abilities to understand the antecedents and consequences of the diverse experiences of American families.

Beyond the “Haves” and “Have Nots”

As a researcher who has spent much of the last decade studying children in immigrant, Mexican-origin families, I have repeatedly encountered the limitations of “digital divide” as a heuristic. By definition, a “divide” creates a dualistic reality in which some individuals “have” access to and capabilities to engage new communication technologies, and all others are cast as “have nots.”

One consequence of this dualism has been media researchers’ focus on children and families presumed to be the “haves,” which explains why most research in this area has been concerned with middle class,

² Furthermore, families from majority and minority backgrounds are seldom studied simultaneously, resulting in few studies that compare these experiences directly.



white families. Children and families on the “wrong side” of the digital divide—that is, those who are minority, immigrant, and/or low-income—have either been overlooked by researchers or framed as being more vulnerable to media exploitation by virtue of being “have nots.” This is a major reason why research on racial/ethnic minority children’s media use remains primarily confined to effects of media portrayals on these children. Research on children as agents who are capable of actively engaging media may be rare in general, but for children from low-income or minority families, such inquiry is almost nonexistent (De Block & Buckingham, 2008).

We are better served by considering access to and capabilities for making meaningful connections with media as a spectrum along which all people—and indeed, different members of the same family—are placed. The domestic media environments of families who have participated in my research have been more constrained than those of other families by their limited incomes, but they still evaluate and privilege certain media purchases over others (e.g., cable television programming over Internet connectivity) (Katz, 2010, in press). These families’ domestic media environments also look different from those of their middle-class, majority culture counterparts in that they are more likely to connect with television, newspaper, radio, and online content in both Spanish and English. Researchers therefore also need to focus on a broader range of family media practices to include connections with ethnically targeted media (Matsaganis, Katz, & Ball-Rokeach, 2011).

Their reasons for connecting with particular media formats and content also vary, as immigrant parents are often motivated to both orient themselves to their new environments and to keep connected to news from their country of origin (Matsaganis, Katz, & Ball-Rokeach, 2011). Immigrant parents often face more challenges with regard to connecting with new communication technologies in particular, as compared with native-born, middle class parents, due to limitations in language capability, cultural familiarity, or technological skills. These families often develop innovative family strategies for connecting with media. Children play central roles in these processes.

Children as Brokers and Agents of Change

Migration engenders many changes to family life that have consequences for how family members engage with each other and share responsibilities. Much of my research has focused on children who are the primary English speakers in their immigrant families, and who therefore play important roles as brokers of language, culture, and media content for their families. Interactions in U.S. schools, combined with developmentally greater facility for language acquisition, make children likely to develop English proficiency and familiarity with U.S. cultural norms and references more quickly than their parents.

Media can be cultural teachers for immigrant parents and their children by familiarizing them with local news and norms. Children may not only broker parents’ connections to media content, but to new communication technologies and devices. Even in working poor communities, children are more likely to develop new media-related proficiencies than their parents (though often not as easily or extensively as their more socially privileged peers) (Lenhart, 2010). In some cases, they develop these skills as part of school curricula; otherwise, they may teach themselves requisite skills or pick up them up from friends.

Of course, media brokering is not unique to children of immigrants. Even in middle class, native-born families, children broker media for their families by, for example, teaching their parents how to send a text message or how to navigate a particular website. However, children in these immigrant families broker their parents’ connections to media and technologies more often and for a wider range of tasks



than the native born, because these media activities intertwine with brokering the linguistic and cultural information embedded in that media content.

Given that children play these roles, they are more likely than children of native-born parents to connect with a wide range of media alongside their parents. A 2002 study by researchers at Harvard University found that only 20% of adolescent children of immigrants (from Central America, Mexico, the Dominican Republic, and China) reported watching TV “mainly alone,” as they most often co-viewed with family members. By contrast, a general study of U.S. teens by the Kaiser Family Foundation during the same period found that over one-third of teens watched TV “mainly alone.” They were also more likely to co-view with friends (Louie, 2003; Roberts, Foehr, Rideout, & Brodie, 1999).

These findings suggest that immigrant families have more built-in opportunities for “joint media engagement,” or JME, referring to “spontaneous and designed experiences of people using media together...when there are multiple people interacting together with media...JME can support learning by providing resources for making sense and making meaning in a particular situation, as well as for future situations” (Stevens & Penuel, 2010). My research demonstrates how important JME can be for these families because although children contribute to their families by brokering when needed, they do not broker independent of their parents. In fact, brokering is more likely to yield results that families consider favorable when parents retain their authority, contributing their adult understandings of what the family needs to their children’s brokering efforts. By pooling their resources, parents and children are able to “scaffold” shared understandings of their environments and how to best engage them (Vygotsky, 1978).

Cooperative engagement around media content has direct consequences for whether these families manage to make and maintain connections to health care, schools, social services, and other resources that not only help them solve immediate needs, but also facilitate their social mobility. My research findings lead me to conclude that JME is essential to understanding how and why some immigrant families integrate more readily than others; JME also helps account for variation in child brokers’ own developmental trajectories (Katz, in press). As a guide for future research, JME opens exciting avenues for considering literacy development as a cooperative, family-level learning process in which children are active, valued partners.

Concluding Thoughts and Future Directions

In this brief paper, I have outlined some key areas where I think future research can enhance our understandings of the increasing diversity of American families. I have argued for understanding families who fall under the umbrella “Latino” category on their own terms, not as a foil to the white, middle class families who are so often the standard against which others are evaluated. Directly engaging the varied experiences, demographics, and forms of human capital these parents and children bring to bear on their media and learning experiences are key to assessing their development across many social domains.

While it is always necessary to take children seriously in research on media and families, immigrant families highlight just how important this emphasis can be. While there are no data specifically documenting how many children broker for their immigrant families, 61% of children of immigrants in the U.S. today have at least one parent who has difficulty speaking English. Among children with at least one parent from Central America, that proportion rises to 68% and to 82% for children with at least one parent from Mexico (Urban Institute, 2009). Furthermore, the likelihood that children of immigrants have at least one parent with limited English proficiency is rising steadily, from 49% in 1990, to 55% in 2000, and to 61%



today (Johnson, Kominski, Smith, & Johnson, 2005). These trends suggest that for children of immigrants, growing up with parent(s) requiring brokering assistance is the norm, rather than the exception.

These data further demonstrate that to understand how American families are changing and developing, we should be less concerned with whether it is parents or children who are leading the charge. Instead, media practices and literacy development are best framed as family endeavors that all members are able to contribute to and benefit from over the life course. A grounded approach to documenting these family endeavors can enable efforts by researchers, practitioners, and policymakers to better facilitate these families' efforts to integrate into the social fabric of U.S. society.

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VISION PAPER 4: HISPANIC-LATINO FAMILIES AND INTERNET ACCESS IN THE HOME: A STUDY OF FIRST-GENERATION IMMIGRANT PARENTS AND THEIR U.S.-BORN CHILDREN

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Introduction

As part of the Digital Youth Project (Ito et al., 2009), a multi-site ethnographic study of young peoples' informal learning with new media, I conducted research with seven Hispanic-Latino immigrant families living in the Los Angeles area. The research involved home visits and extended interviews with family members, as well as participant observation in a middle school that was attended by at least one of the children in each family. The study aimed to document children's access to, and use of, the Internet and other forms of digital media across the contexts of school and home (Tripp & Herr-Stephenson, 2009; Tripp, 2011). The following essay draws on this research to address how first-generation, Spanish-dominant immigrant parents and their native-born, English-dominant children negotiated and debated access to computers and the Internet. Analyzing the experiences of these families provides insight into the social and cultural contexts that shaped their Internet use in the home, and also raises important questions for future research related to Latino families and digital inclusion.

Current Trends In Home Internet Access

One of the clear patterns to emerge from recent demographic research of Internet use among Hispanic-Latinos in the U.S. is that Internet use rates differ markedly between teen Latinos, those in their early 20s, and older Latinos (Livingston, 2010). Of all Latinos ages 16 to 19, 84% report that they email or use the Internet. Among second-generation Latinos ages 16 to 19, 90% go online, and among third-generation Latinos of the same age range, almost all (97%) go online. As Latinos get older, on the other hand, they are much less likely to use the Internet. For example, just under three-fourths (74%) of Latinos ages 20 to 25 go online, and only six-in-ten (61%) of Latinos ages 26 and older use the Internet at all (Livingston, 2010). The percentage of Latino adults who use the Internet drops even further if we consider differences within the Latino population. For example, only 54% of foreign-born Latinos and 47% of Spanish-dominant Latinos go online (Livingston, 2011). This research suggests that among Latino families, particularly those in which parents are foreign-born or Spanish-dominant, there are likely to be significant intergenerational differences between parents and their children in terms of Internet use.

Another trend evident from recent demographic studies is that a large number of Hispanic-Latinos in the U.S. still do not have home access to a computer or the Internet. Currently, for example, only 48% of Hispanic families with children ages 0 to 8 have a computer at home, in contrast to 83% of white and 73% of black families (Rideout, 2011). Similar patterns exist in terms of Latino families' access to broadband (only 44% have high-speed Internet access, in contrast to 80% of white families and 53% of black families). For foreign-born Latinos, the number of those who have a home Internet connection drops to 45% and a home broadband connection to 35%, and for Spanish-dominant Latinos, the number drops to 37% and 26% respectively (Livingston, 2011). The implication of this research is that Latino families—particularly those with parents who are foreign born or Spanish dominant—still face basic challenges in terms of gaining home access to computers and the Internet.



In what follows, research with seven immigrant families is examined. In general, the families' access to computers and the Internet exhibited the trends described in the above studies. For example, most of the families did not have computers in the home, and most of the parents did not use the Internet. In contrast, young people in the families were active users. In this way, while the study does not attempt to speak for or represent a broader population of Latino families, it can lend insight into how a particular group of families dealt with social realities—and indeed challenges—which many other Latino families must also confront.

Contexts of Internet Access In the Home

The seven family groups discussed in this article represent 33 individuals, including 10 parents, 20 young people between the ages of 2 and 16 (9 boys and 11 girls), and 3 adult extended family members. Four of the seven households were headed by a single parent. In each family, either one or both parents immigrated to the U.S. from Mexico or Central America, and all of the children were born in the United States. Parents were Spanish dominant and most spoke little English. They also had little formal education and worked primarily in the low paying, "low-skill" job sectors common among California's first-generation immigrant population (Cornelius, 2006). The children in the study spent most of their free time outside of school at home, either indoors or in the immediate area surrounding their apartment complexes. They did not have ready access to any after-school activities or programs at school or community centers.

Of the seven families, only two had a working computer with Internet access at home. Another two families had previously had a computer and Internet connection, but they had cancelled Internet service when they could no longer afford it. In one of these latter households, the computer still worked; in the other household, the computer was broken and missing a mouse. Families had access to a wide range of other media and communication technology in the home, most of which was used, old, or otherwise "worn out." All of the families had at least one television set, a VHS or DVD player, and a video game console. Video cameras and mobile media devices were much less common, although several parents had cell phones.

Due to having Internet access at school, all of the teens in the study reported familiarity and confidence with using computers and going online. Parents, on the other hand, had little or no experience with computers and the Internet. One of the parents used computers and the Internet at work, but not at home. Two of the parents reported learning some basic computer skills from their children, and the remaining parents reported no experience in going online or using a computer. While parents had various explanations for why this was, their reasons generally emphasized the "complicated" and "difficult" nature of the technology, as well as not having the time or opportunity to learn. In this way, parents' attitudes towards computers reflected broader trends that have been found among low-income adult Latino immigrants in which computers and the Internet are perceived as useful—and something they might want to learn—but also technically difficult, mysterious, or intimidating (Leonardi, 2003; Rojas et al., 2012). In the case of this study, the result was that there was a sharp contrast in the computer and Internet-related competencies of parents and children.

Parental Attitudes Towards the Internet

Empirical research with parents has demonstrated that most parents are ambivalent about the opportunities and risks associated with their children going online (Livingstone and Bober, 2006). Parents believe Internet access will benefit their children's education, but they are also concerned about online risks (Lenhart, 2005;



Turow & Kavanaugh, 2003; Valentine & Holloway, 2001). The parents in this study followed this trend. While they had little formal education themselves, they valued education highly and spoke frequently about the importance of their children getting a good education in order to avoid hardships they had experienced. They viewed computers and the Internet within this context, as important *for their children* to be able to do well in school. For example, of the two families who had a working computer and Internet connection, the parents had bought the computer and paid for monthly Internet access specifically because they believed it could help their children's education. The other parents—who did not currently have a working computer or Internet connection—reported that they hoped to get Internet service eventually, expressly for the purpose of helping their children with schoolwork.

Parents' sense of the importance of the Internet for their children did not come without serious reservations, however, and these reservations left parents deeply conflicted about the Internet. Parents worried about their children coming across inappropriate content online, but mostly they worried about the dangers of stranger contact and sexual predators. Such concerns about Internet safety have preoccupied parents since young people began flocking to the Internet in the late 1990s (Turow & Kavanaugh, 2003; Valentine & Holloway, 2001). In 2004, however, young people began using MySpace en masse, and after the 2005 purchase of the social network site by News Corporation, the site began attracting massive media attention (boyd & Ellison, 2007). The parents involved in this study were being interviewed in mid 2006, at the height of a "moral panic" about sexual predators taking advantage of children online (boyd & Ellison, 2007; Watkins, 2009). As a result, parents often made reference to hearing on "the news" about the dangers of letting their children go online, and they were far more worried about their children using computers and the Internet than they were about them using other media such as television or video games. While TV and video games were "not educational," the parents claimed, they were "safe."

Valentine and Holloway (2001) lend insight into what makes concerns about the Internet somewhat different from other previously new media. They argue that fears about the Internet map, albeit not in a straightforward way, onto fears historically associated with public outdoor space, the idea that children are vulnerable to dangerous strangers and in need of protection from the adult world. From this perspective, the Internet-connected computer is viewed in some households as a "gateway to harm," in which the "innocent" child must be protected from danger, and the "dangerous" child from getting into trouble (Valentine & Holloway, 2001, p. 76). At the same time, discourses surrounding children's very familiarity and competence with 'ICT' is often seen as bringing on a new set of risks, especially when children are viewed as knowing more than parents. For the parents in this study, the Internet was viewed in the context that Valentine and Holloway (2001) describe, as a uniquely risky gateway to threats from the outside, especially strangers and pedophiles. These concerns were exacerbated by parents' lack of computer experience or skills, which heightened their anxieties about how to best protect their children from perceived online dangers.

Negotiating Internet and Media Use In the Home

To some extent, all parents face challenges in regulating their children's online activities. Children often know more about computers than their parents, and they routinely develop strategies to subvert parental control of the Internet (Livingstone & Bober, 2006). In the case of this study, however, the difference between the computer expertise of children and their parents was vast, and the challenges parents faced in regulating their children's access to the Internet were particularly acute. Because parents had little background knowledge about computers, it was especially difficult for them to understand the context of what their



children wanted to do online, assess potential risk factors, and monitor their activities. While more “tech savvy” parents may review their children’s search history or install filtering software in their efforts to regulate children’s access to the Internet (Eastin et al., 2006; Lenhart, 2005; Livingstone & Bober, 2006; Wang et al., 2005), the parents in this study had heard of such strategies but for the most part did not know how to implement them. This left parents with a great deal of uncertainty about their children going online, which Anita—one of the parents—explained as follows:

Like I said, I barely know the computer. I don’t know how to use it. I don’t know it. So that is why I am worried, because sometimes I don’t even understand what my children are doing [when they are online].

In response, parents developed a variety of strategies for supervising or limiting children’s online access. Parents without Internet in the home often restricted their children from going to the homes of friends and neighbors, or aimed to be present in these spaces if their children were online. Alicia and Martin allowed their son to use a neighbor’s computer to go online, for example, but his access was limited to going online only one or two times a week because the neighbor was rarely home. According to the parents, they liked this arrangement because this way their son “didn’t have enough time to get into trouble.” Their decision not to have Internet at home was in part economic, but it was also largely due to concerns about their son going online.

In the two households that currently had Internet access, parents placed the computer in a common area of the house, such as the living room or kitchen, where they could more easily supervise their children’s activities. In these households, children were only allowed to go online if a parent was in the same room. If the parents had to leave their children home unsupervised, they physically disconnected the modem. Anita explained, “When [my daughters] are here, I am here with them...If I have to leave, I take the cord with me.” Along similar lines, Rose explained how she disconnected the modem whenever she left the house, and then either hid it in a closet or took it with her. She did this, she explained, even when she was just going out of the house for a few minutes to talk to a neighbor.

Parents also tried to regulate what their children did when they were online. For the most part, these efforts centered on promoting the use of the Internet for school-related activities, as Anita explained:

I have to keep a close eye on [my daughters] to see what is going on...They don’t like me saying, “You know what? The computer is not for you to be looking around, it is for schoolwork.”

In general, parents approached television and videogames very differently from how they approached the Internet: they felt comfortable with these formerly new media and did not express concerns about the content being objectionable or ‘dangerous’ for children. As a result, most households gave children daily, relatively unrestricted access to television and video games. Young people, in turn, played video games and watched television for hours at a time—often without the presence of an adult at home.

Another key difference between how parents approached the Internet, in contrast to television, was that television watching was often treated as an intergenerational activity for the whole family. Many parents and children reported that watching a favorite show or movie together was one of their favorite ways to spend time together. In contrast, few parents reported spending time with their children around the computer (or around video games, for that matter). Rita was one exception. While her family no longer had a working Internet connection (because they could not afford it), she and her son had previously spent time around the computer, playing together and working on homework. Rita claimed to know little about



the computer, but she felt she was learning from her son and that being together on the computer had been “an opportunity for him to get to trust me.”

Unintended Consequences

A growing body of research in digital media and learning has pointed to the social and educational benefits of young people having time online that is informal and unstructured, in which they can pursue their own interests and motivations with media. For example, Livingstone and Helsper (2007) found that young people’s social and entertainment uses of the Internet often underpin more advanced uses of the Internet and overall uptake of online opportunities. Further, Ito et al. (2009) illustrate how young people’s “messing around,” tinkering, and experimenting with media can be highly productive for learning, often leading to greater media awareness and technical expertise, or providing a stepping stone to a new area of interest. To take advantage of such opportunities, they argue, young people need access to a variety of technical and social resources, including the time and space to experiment.

The teens in this study rarely had access to the time and space to “hang out” or “mess around” online. While this was in part due to school practices and policies that prohibited or limited such activities (Tripp & Herr-Stephenson, 2009), it was also due to parental attitudes, such as Anita’s belief that the computer was for “schoolwork” and not “for looking around.” In this way, parental practices reflected well-intentioned efforts to help children succeed academically and avoid the perceived risks of going online, yet they also contributed to limiting young people’s time online and reducing their access to potentially rewarding opportunities for personal development, social participation, and informal learning.

Conclusions and Implications for Future Research

The results of this study suggest the importance and ongoing relevance of investigating variations in the nature and quality of young people’s access to and use of the Internet, including the extent to which young people are able to “hang out,” “mess around,” and “geek out” online (Ito et al., 2009). We are still only beginning to learn how various online opportunities (or the lack thereof) impact young people, as well as understand the range of social and technical supports young people need to be able to mobilize online opportunities. As these issues suggest, it would be useful to conduct both wider-scale and longer-term studies about the shape and impact of digital inequities and the “participation gap” on young people. This study also highlights the need to examine Latino parents’ attitudes towards the Internet, and their strategies for regulating children’s Internet access, in efforts to understand the barriers to digital inclusion that Latinos continue to face.

Public policy in recent decades has promoted the “deregulation” of media and communication industries and a “lighter-touch” regulation of the Internet (Montgomery, 2007). These policies have resulted in “devolving the regulation of children’s access and use [of the Internet] onto parents” (Livingstone & Bober, 2006, p. 96-97). The results of this study demonstrate the limitations of such policies, for they have put parents in the very difficult position of trying to enable their children’s access to online opportunities, while also protecting them from online risks. This is especially difficult for parents, like those in this study, who have limited experience with computers and the Internet to help inform their efforts. Given this climate, there is a real need for media and computer education initiatives to do a better job of reaching out to, and including, Latino immigrant parents.



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AGENDA

HISPANIC-LATINO FAMILIES & DIGITAL TECHNOLOGIES FORUM

June 8, 2012 • PNC Place, Riggs North/South Conference Room
800 17th Street NW • Washington, D.C.

8:00 – 8:30	Continental Breakfast
8:30 – 8:35.....	Welcome Sharon Darling, <i>National Center for Family Literacy</i>
8:35 – 8:55.....	Presentation: Transforming Latino Communities Through Digital Literacy Monica Lozano, <i>impreMedia</i>
8:55 – 9:15.....	Presentation: Hispanic-Latino Media Consumption Mark Lopez, <i>Pew Hispanic Center</i>
9:15 – 10:10	Reaction Panel
10:10 – 10:30	Morning Break
10:30 – 11:45.....	Panel 1: Socio-Cultural Context: Hispanic-Latino Families and the Challenges They Face
11:50 – 12:50	Panel 2: Promising Practices: On-the-Ground Issues Involving Hispanic-Latino Families, Technology, and Education
12:50 – 1:40	Lunch
1:45 – 2:45.....	Panel 3: Emerging Research On Hispanic-Latino Families and Digital Media
2:50 – 3:30	Synthesis and Priority Setting Michael Levine, <i>Joan Ganz Cooney Center at Sesame Workshop</i> and Delia Pompa, <i>National Council of La Raza</i>
3:30 – 4:00	Presentation Roberto Rodriguez, <i>White House Domestic Policy Council</i> with Lisa Guernsey, <i>New America Foundation</i>



LIST OF FORUM SPEAKERS

Diane August, PhD

Managing Director, American Institutes for Research (AIR)

Jeanette Betancourt, EdD

Senior Vice President for Outreach and Educational Practices, Sesame Workshop

Kevin Bushweller

Assistant Managing Editor, Education Week; Executive Editor, Digital Directions

Karen Cator

Director of the Office of Educational Technology, U.S. Department of Education

Patti Constantakis, PhD

Executive Producer, GreatSchools

Brenda Dann-Messier, EdD

Assistant Secretary for Vocational and Adult Education, U.S. Department of Education

Sharon Darling

President and Founder, National Center for Family Literacy (NCFL)

Linda M. Espinosa, PhD

Co-Principal Investigator, Center for Early Care and Evaluation Research—Dual Language Learners; Lead Consultant, Best Practices for Young Dual Language Learners Project

Lisa Guernsey

Director, Early Education Initiative, New America Foundation

Vikki Katz, PhD

Assistant Professor of Communication, School of Communication and Information, Rutgers University-New Brunswick

Emily Kirkpatrick

Vice President, National Center for Family Literacy (NCFL)

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Mark Hugo Lopez, PhD

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The Joan Ganz Cooney Center at Sesame Workshop is an independent, non-profit research center that is fostering innovation in children's learning through digital media. The Cooney Center conducts and supports research, creates educational models and interactive media properties and builds cross-sector partnerships. The Cooney Center is named for Sesame Workshop's founder, who revolutionized television with the creation of *Sesame Street*. Core funding is provided by the generous support of Peter G. Peterson and Sesame Workshop.



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The National Council of La Raza (NCLR) is the largest national Hispanic civil rights and advocacy organization in the United States—works to improve opportunities for Hispanic Americans. Through its network of nearly 300 affiliated community-based organizations, NCLR reaches millions of Hispanics each year in 41 states, Puerto Rico, and the District of Columbia. To achieve its mission, NCLR conducts applied research, policy analysis, and advocacy, providing a Latino perspective in five key areas—assets/investments, civil rights/immigration, education, employment and economic status, and health. In addition, it provides capacity-building assistance to its Affiliates who work at the state and local level to advance opportunities for individuals and families.

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