# Leveraging Technology toward Family Supports for and Development of Middle Schoolers

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#### **Abstract**

This Practitioner Perspective discusses how sharing a learning space with their parents, college students, and other adult members in a community-based technology program influenced middle school students' familial support, their own technology knowledge and social capital, sense of membership in a learning community, and identity development. The program's structure used technology as a starting point to develop skills, but also to aid Latino immigrant families to navigate their children's schooling experiences.

### INTRODUCTION

The benefits and concerns related to students' use of technology often center on the effects of technology use itself. However, it is also important to look at the context in which the technology is being used, and how technology may be leveraged toward a larger purpose than being able to use technology as a tool. Additionally, students' technology use often is discussed within the contexts of the classroom with peers, or in the home. Yet, a wider perspective might be adopted, considering who might be learning together and the multiple settings in which technology use and learning can occur. Digital Home1 is a community-based technology program geared toward Latino immigrant families, but also open to community members who wish to pursue learning basic computer skills. The program offers an example of how technology might be used as a vehicle to expand users' ability to navigate systems and to connect with others. At the same time, the program can expand our view of where learning takes place, allowing educators to look beyond the dichotomy of school and home, and to take on a more holistic perspective leading toward middle grades students' positive development.

### **Digital Home**

Concerned about the existing and potentially widening digital divide for Latino families, a local, recently-retired educator began Digital Home in 2011. At the time, the district increasingly was turning to digital dashboards, electronic report cards and e-mail to

communicate with parents regarding their children's schooling. This former middle school teacher and school administrator had witnessed that Latino families did not have a great deal of access to technology or had access, but did not know how to use it. Funded by a grant from a religious order in another state, this long-time educator and community member established a primarily Spanish-language technology program, offered in 10-12 week courses, whose mission was "promote connections, communication, and access" (Gil, 2017, pp. 76-77).

Rather than focus only on teaching technology skills, the program had a few overarching goals. The program's three main goals addressed key program stakeholders: parents, students, and university volunteers. The first goal was to teach parents and guardians basic computer skills so that they could better support their children's academic achievement. Digital Home's second goal aimed to foster connections between students and their parents/guardians, while promoting positive behavior and academics. Finally, the program sought to motivate university students' college completion through helping them to understand their important role in serving the local community (Gil, 2017). Digital Home, indeed, did expand the ways that parents could support their children's academic trajectories and promoted children's and parent's engagement with one another in the computer lab and beyond. The program also fostered relationships among the university students, community members, and Digital Home families, including their school-aged children.

Program and participants' names are pseudonyms.

The middle schoolers who attended with their adult family members witnessed their parents overcome fears regarding technology and become more independent in their own computer use. In addition, the students began to use technology alongside their parents, checking teacher e-mails together and preparing PowerPoint presentations assigned to students. By serving as junior technology mentors, the middle schoolers were able, also, to share their own technology skills with the adults taking the technology classes and grew in their own technology skills. These students also gained insights into higher education through their interaction with college volunteers who served as technology mentors in the Digital Home.

# Middle School Students' Perceptions of Parents' Learning

By talking with various children from Digital Home families and through observing interactions in the program space, I gained insights about what the students understood about their parents' experiences in the program. I spent over three years volunteering with Digital Home and over one year conducting a study about the program. As part of the study, I spoke with three children who attended Digital Home as middle school students. Two of those who attended as middle schoolers, Edilberto and Alberto, are the eldest children in their Mexican immigrant families. Among the family responsibilities each of these sons had was to help family members with using technology and to translate when their parents needed English language support. Both of these students are now in high school. The third middle schooler, Julia, is Alberto's vounger sister. Like him, she attended Digital Home with her family since the program's inception. In addition to formally speaking with Julia and Alberto via an interview, I also had the opportunity to interact and speak with them less formally over the years in the lab and in other community spaces.

Edilberto, Alberto, and Julia all shared instances where their parents became more independent in their technology use as a result of taking Digital Home classes. They shared that their parents could now do things on their own that they could not do before. While Edilberto still helped his family members with using the computer, they needed less help than they had previously needed. Julia stated that her parents could now search for information on their own: "they don't have to ask me...how do you get to

here?...They just know how to get there." Alberto noted that he was no longer the only one at home with technology knowledge and even added that his parents could now be "a helping hand" for other parents who might not know how to use computers. Both Edilberto and Alberto talked about how their mothers were stronger with e-mail than they were, and helped the young men use electronic mail. With their new skills, Alberto viewed his parents as "another resource I could use." These students and their parents actually used technology together once their parents understood how to use the technology. While children could still help their parents learn computer skills, the adults could apply their newly learned skills to guide their children.

The middle school students in Digital Home also talked about the program setting as a caring space that supported participants' learning and helped them to overcome fears. The type of care experienced by adult and child participants in the Digital Home space ran counter to that found in previous research regarding U.S. Mexican youth in schools. Those adolescents experienced a lack of reciprocal relationships with their teachers, who appeared to channel their care into students' academics and test performance (Valenzuela, 1999). Instead, Digital Home focused on the people themselves and addressing needs beyond instructional content, providing a positive environment. Edilberto described Digital Home as a "helpful and...really nice environment," while Julia perceived program organizers' actions as "thoughtful" and inclusive of the children, in addition to the adults who were the program's focus in terms of content. In the program, Alberto saw his parents guided in their learning "step by step and [the volunteers are] willing to be there, to help you, to get through the whole thing." He observed that his mother could turn on the computer and that she "didn't get scared." Alberto further described what he perceived as a difference between schools that "have set goals for people...they'll...move on without them," and Digital Home where, if someone needed more time, "they would wait...and then they all move on as one...and they'll learn. And if one person didn't know, another student can help them learn" (Gil, 2017, p. 112). His experience in Digital Home was that this learning setting was "a lovable place where you can talk about anything...someplace to call home." Digital Home, he felt, offered a more supportive

environment than the schools he experienced did.

The technology skills gained by the adults in Digital Home opened doors for parents to be able to access the systems their school districts used to communicate with and inform them. One father shared that being in Digital Home helped him and his wife to better understand why computers were important in their children's education in addition to how the children were expected to use them in learning. Digital Home, however, also helped the parents to support their children's educational trajectories offline. Through its structure of teaching technology skills and navigational skills, Digital Home not only reflected the belief that "computers are a central medium for knowledge distribution," (Machado-Casas, Ek. & Sánchez, 2014), but also recognized the needs of families in terms of other school-related information as well. Since parents in Digital Home were mainly immigrants who had not attended schools in the US, the program helped them to navigate the educational system through discussing grading systems, and the importance of opportunities offered their children. When Edilberto was in middle school and was invited to join the Junior National Honor Society, his mother was able to ask about what the group was and to understand that being in this group could benefit Edilberto's future applications for college. She also learned about scholarships and how they might be pieced together to make college more accessible, cost-wise. These types of conversations were not common for these parents when they interacted with people at their children's schools. In Digital Home, children not only saw their family members learn technology skills and overcome fears related to using computers. They began to use the technology together, engaging in reciprocal learning experiences. Additionally, families gained other useful information that helped families navigate current school contexts and plan toward the future.

## **Development of Social Capital**

Through attending Digital Home with their parents, middle school students also gained social capital in a variety of ways. Social capital, here, refers to the access to and interchange of information (Ishimaru, 2014) and to activating networks to share information and resources through peer groups (Yosso, 2006). The students with whom I spoke and observed over

time said that being in the lab space with adults taking classes improved their own technology skills. Julia talked about how going into the program, she knew how to do some things on the computer, but listening to the classes, "showed me to, like, go deeper" (Gil. 2017, p. 85). In school, both Julia and Alberto's peers recognized them as possessing technology skills beyond their own. The siblings' classmates called on them for help them with assignments. Julia's peers recognized her computer skills and knowledge and knew that she attended the Digital Home program. Alberto shared that he helped others in his class with developing assigned presentations and sending attachments. Julia and Alberto's mother at one point remarked to me that she did not know how her son came to learn these skills. She thought he was only playing games while she was in class. Julia stated that at times she would stop and listen to the classes and then would return to her own tasks on the computer. Even when not directly and fully engaged in class content, the children who attended gained technology knowledge as well.

Students who helped in the program as junior tech mentors also showed their skills among the adults in the program, helping their parents and other adults. For Edilberto, there was an added benefit, as he was able to complete his community service hours for Junior National Honor Society while helping at Digital Home. The adults taking classes also regarded these students as knowledgeable members of the Digital Home community. The children further increased their social networks as they interacted with their parents and adult community members, but also as they engaged with college student tech mentors. Alberto talked about how these college students became friends. At times the college students also shared about their course of study and college experiences, thereby also increasing the younger students' college knowledge. Members of the Digital Home community also, on occasion, interacted in the general community. Digital Home's multigenerational setting fostered a sense that all could participate and contribute regardless of age. Adult participants had the opportunity to pursue their own interests in learning, simultaneously sending a message to the children that continued learning was important. The children also had the chance to benefit from the wisdom and guidance of older community members as they shared time in the program space. College students learned from

members of the community and the families with whom they interacted. All of these relationships present in Digital Home reflected extended familial ties valued among Latino immigrants in the community. In this multigenerational setting, middle schoolers shared their knowledge, gained new knowledge, and grew their own social networks as members of a learning community and as Latinos.

## **Development of Identity**

As scholars have noted, identity development is central in adolescence (Akos & Ellis, 2008). Students who explore their identity have a higher tendency to think critically and abstractly compared to those who do not (Akos & Ellis, 2008). Alberto was in late elementary school when Digital Home began and his parents registered for the program. In his junior technology mentor application, Alberto noted that his post-high school plan was to enter the military. When I spoke with him years after this application was completed, he answered differently. "I'm the first child and my parents didn't go to college so I want to start the cycle. [of] going to college...so that we could all get a better education and...do the same thing for like the next generation that comes" (Gil, 2017, p. 85). His awareness of being a future firstgeneration college student was, at least in part, fostered in Digital Home through his engagement in educational conversations and relationships developed with college students. Alberto did not only identify himself as an individual, but in conjunction with being a part of a larger group, his family, and wanting to start a new educational pattern in his family. He also developed an identity as a bilingual person. In this space. Spanish was the language of instruction and bilingualism was central and valued as an asset. Alberto saw himself as a "connector to both [English- and Spanishspeaking] worlds" (Gil, 2017, p. 88). Being bilingual was not only about his language ability, but also about how he could apply that language proficiency in engaging others. Alberto did not view these identities as only being about him. Instead they connected him to others, be they his family or a larger community, and could benefit others. Alberto's identity perspective mirrors collective aspects of Latino culture (Conchas, 2001). Advancing his education also indicated his family's advancement (Gonzales, 2012), for example. These conceptions of identity shared by Alberto, who had been going to Digital Home with one or both of his parents

for several years, including all of his middle school years, highlights the development of complex thinking and a move toward social consciousness.

#### Conclusion

This essay describes how Digital Home, begun as a vehicle to fight inequity that existed as a digital divide for Latino families, leveraged technology as a platform for learning skills, while supporting Latino immigrant families' abilities to navigate their children's schooling experiences. The program context highlights some of the ways that the community-based program provided an environment that existing school practices did not. Educators can learn from Digital Home's ability to understand the needs and characteristics of its participants and to be responsive to these. Digital Home recognized that the Latino immigrant parents in the program did not necessarily possess knowledge about the U.S. school system. Therefore, the program embedded explicit discussions about school structures and the importance of current academic opportunities offered their children that could impact their futures. Recognizing the importance of relationship-building and care for participants, the program provided a welcoming environment for parents and their children. Viewing participants as part of a family unit, rather than viewing adults or children separately, the program was responsive to the collective nature of the program participants and fostered a multigenerational learning community, reflective of extended familial networks valued by the Latinos in this community. As a result of the program's nature, parents experienced expanded ways to engage in their children's schooling and to interact with their children using technology as a medium for both. Additionally, middle school students experienced positive development in the program, as they grew in their own technology skills, shared their knowledge, and learned from others.

Debates about the use of technology are often discussed in terms of the effects of technology use itself. However, context matters, and as we consider the role of technology in the lives of adolescents, it is also important to look at the bigger picture, the context in which the technology is being learned and utilized. We must consider what larger goals we might address for our students using technology as a

lever. Digital Home invites educators to look at technology for the platform it might present if built into a larger program, and to challenge dichotomies that limit ideas of where technology learning might take place or who might be considered a learning peer.

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