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# An assets-based design approach to promote digital equity for Latino youth and their communities.

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## ABSTRACT

Digital technologies have recently shaped the way in which individuals and communities interact. This paper examines the unique social contexts of Latino youth and their use of digital technologies to support access to health information and extend social support. The design and use of digital health tools are complex and should not take a one-size-fits-all approach. In order to better understand community assets and systemic issues of power, this paper explores interactions between developmental, contextual, and technological factors that may empower Latino youth to use digital tools to support their wellbeing, especially in the era of COVID-19 (C-19). Therefore, we first review the nuances of culture and behaviors of Latino youth to highlight opportunities for strength identification support. Next, we review traditional co-design processes and how they might be refined to support an assets-based approach. Finally, we present an assets-based approach and framework to be used as a lens through which designers can gain better understanding of Latino youth and their use of digital technologies to navigate unique challenges. Through this approach, designers may avoid amplifying structural inequities and discriminatory processes in marginalized communities.

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## **KEYWORDS**

Asset-based approach, Latino youth, participatory research, digital health

## **INTRODUCTION**

We live in a place of history within the United States where the diversity of the youth population is at its highest [8]. Groups previously noted as racial and ethnic minorities are now considered the majority with the Latino youth population among the largest, fastest growing, and youngest major racial or ethnic group in the United States [11]. It is estimated that one-third, or 17.9 million, of the nation's Hispanic population is younger than 18, and about a quarter, or 14.6 million, of all Hispanics are Millennials (ages 18 to 33 in 2014) [11]. Latino youth are among the highest users of online and digital media (e.g. social media) [2,7], yet severe systemic disparities in the offline spaces (e.g., healthcare, education, industry) have muted the vast opportunities for an equitable digital space, especially for digital health support and services. How can we translate Latino youth assets into design that supports healthy social transformation?

In order to understand the impacts of health disparities affecting this group, it is worth recognizing the academic and industry inequities which have been exacerbated by the recent COVID-19 (C-19) pandemic, with Latino communities being among the hardest hit [22]. Virtual schooling, telehealth, and online mental health resources are just a few of the life adjustments youth in general have had to face [13]. Yet, it goes with little acknowledgement that existing power structures challenge many Latino youth with much more, such as larger intergenerational households, income disparities, employment as front-line workers, or limited access to technology tools--all of which often elevate stress, anxiety, and increase risks overall. But instead of sole foci on deficits, we can amplify the voices of Latino youth by looking to their many strengths, or assets. In this paper we explore the lived experiences of Latino youth in California (CA) as a regional example to gain deeper understanding of how an assets-based approach to design may empower and support the development of youth from marginalized communities outside of their immediate environmental supports.

## **STRENGTHS, PROBLEMS, AND AN ASSETS-BASED APPROACH**

### **Strength Identification**

**Resilience** - this is strength often found in the narrative of Latino communities, especially among youth. Resilience is the ability to withstand adversity by activating coping mechanisms and leveraging assets and resources [9,17]. Concepts of resilience have public health origins in disaster preparedness, where community resilience is the community's ability to withstand and recover from a disaster, such as a pandemic [4]. Findings suggest that resilience in Latino communities can be protective of psychosocial health by empowering individuals to better cope with challenges [20]. However, as increasing numbers of Latino youth are using digital media, an assets-based approach to design of digital media should seek to enhance and facilitate existing resilience as well as advance social change to dismantle power structures that marginalize their communities.

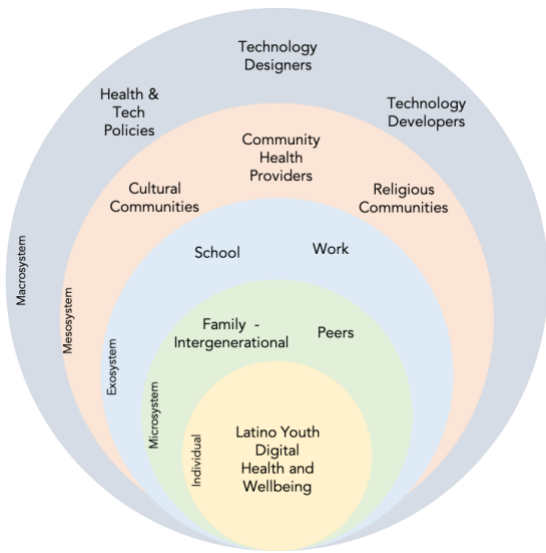
**Familism** - this is another critical and valuable component to the Latino youth culture and experience. The role of the family in a young Latino's life can often shape strengths and resilience [18]. Within the strength in family bonds also comes challenges for youth (e.g., concern with more adult issues such as healthcare and economic concerns) by which digital tools may help to support youth and their families. Many health-related topics and resources are often avoided or underutilized by older members due to stigma and distrust in health care among Latinos [1]. While Latino communities are at high risk for developing mental and physical health-related issues [21] there is much hesitancy, due to historical and cultural narratives, that has caused distrust and avoidance of healthcare systems [12]. Young Latino use of digital media and their voices in the design process may empower them to share and provide support for themselves, their families, and their communities. There exists enormous potential for digital technology to strengthen this asset and transform the digital health experiences of Latino communities.

Resilience and familism are two of the many strengths and assets of Latino youth. They are key examples of identified strengths in a community and how future design work may build on these strengths to empower an entire community. In addition to recognizing strengths, we recommend that all design work also **evaluate power structures that feed into challenges**. Challenges faced by marginalized communities are not solely rooted in the community--existing power structures created and maintain inequities in order for communities to be marginalized. To better understand the lived experiences of Latino youth and identify how digital media may help use existing strengths to navigate challenges, we evaluate equity in three different power structures: health, academia, industry.

### **Issues of Power**

#### *Health Equity*

Early research has shown that minoritized youth, specifically Black and Hispanic adolescents, were found to have significantly lower rates of health care utilization for both primary and mental health care compared to their white counterparts [5,10]. These racial and ethnic disparities are often explained by lack of access and a mistrust of the health care system. More recently, Hispanic/Latino youth are at higher risk for physical health issues such as obesity and asthma, and also higher rates of depressive symptoms and problematic alcohol consumption [6]. However, despite these increased risks, access and utilization of health care systems remains at alarmingly low rates [15] even though a recent study shows that social capital within Latino families for youth have shown potential for resilience and improved health behaviors [14].



**Figure 1. Ecological Considerations for Wellbeing of Latino Youth in the digital age.** In order to design for Latino youth, we must consider their social ecological interactions which influence their wellbeing, especially in online spaces.

In many areas of the US, the Latino community is tragically affected by C-19. In CA, they disproportionately represent 71% of fatalities among 18-64 years old [22]. This extreme outcome unfortunately aligns with prior research which reveals the impacts of public health crises on communities who face such vast structural disadvantages. This tragic fatality rate is expected to impact Latino youth in unprecedented ways [3] as it may further isolate Latino youth from other youth whose communities have not experienced such loss due to C-19. As such, in any design effort, it is critical to understand not only the social contexts of their lived experience but to leverage the strengths that support them through social and health challenges. During the C-19 era, many Latino youth, and youth in general, are turning even more to their digital tools to cope with drastic changes to their everyday lives, yet traditional research often does not take into consideration the contextual, developmental, and cultural considerations to develop an equitable online space (See Figure 1). Digital technology in its ubiquity and a broader ecological consideration may be a part of the solution to closing the gaps in these disparities.

It is recognized that online spaces and information can significantly influence behaviors and development [7]. Owning a smartphone as a teenager is nearly ubiquitous (95%) and among the highest by Latino teens compared to their white and black counterparts [2]. In general, greater exposure to digital spaces has been linked to increased exposure to risk behaviors online, yet surprisingly a significant understanding of risks and preventative measures to limit the proliferation of these problematic behaviors have been shown among Latino youth [19]. This understanding is critical to highlight when designing for youth, and in particular marginalized youth, such as Latinos, in the digital age.

*Academic/Research Equity.*

Much research is conducted on behalf of Latino youth by leading research universities. To better understand traditional academic structures, we evaluated the ethnic/racial diversity of ladder rank faculty in three top tier research universities in CA: The University of California, the University of Southern California, and Stanford University. Even though Latinos make up 39% of their state’s population, these three universities only average 6% Latino ladder rank faculty overall (see Table 1) [23-25].

	Ladder Rank Faculty (Latino, all fields)
UC	5%
Stanford	4%
USC	9%

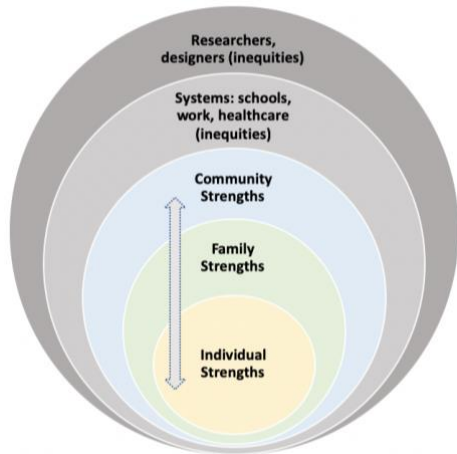
**Table 1.** Ladder rank faculty workforce diversity in leading CA research universities.

*Tech Industry Equity.*

Additionally, much design work is conducted for Latino communities by powerful tech industry leaders. To better understand these for-profit business structures, we evaluated the ethnic/racial

	Overall percentage of Latino Employees
Twitter	3.9%
Facebook	5.2%
Google	5.7%
Microsoft	6.3%
Apple	14%

**Table 2.** Employee workforce diversity by tech industries headquartered in CA.



**Figure 2.** Assets-based environmental supports already occurring in family and community systems.

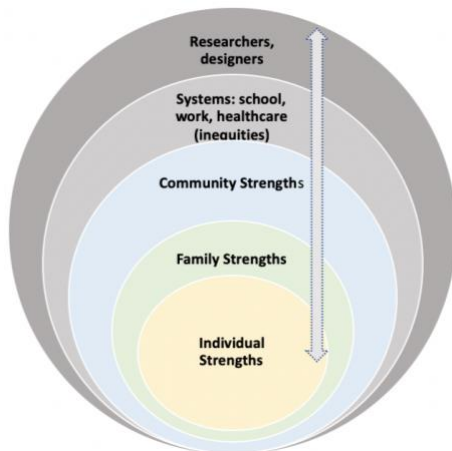
diversity of employees in five of the largest tech leaders with headquarters in CA: Twitter, Facebook, Google, Microsoft, and Apple. Even though Latinos make up 39% of the CA population, these five industry leaders only average 5.85% Latino employees (Table 2) [16]. At the time of writing this paper, data were not readily available to evaluate how many of these employees are located in CA or the diversity percentages of industry executives.

### THE POSITION

A first step towards an assets-based approach is to elevate lived experiences through recognition of strengths within the community that support resilience. Elevating lived experiences may challenge existing power structures and pervasive negative narratives often found in formal avenues (e.g., media, academic journals, news stories). However, we posit that elevating lived experiences is a significant part of co-design as a social movement. Part of this movement is creating new roles for marginalized communities in the design process. As designers, we must move towards creating supportive conditions for participation and partnership in research and design processes.

Ascribing value to lived experiences begins with accepting and respecting that there are already assets in the community. Figure 2 highlights the flow of existing assets-based relationships between individuals, family, and community to foster supports that maintain and strengthen the community. This also highlights the gap created by inequities and the resultant isolation of the community from existing power structures. Even though a community may be nested in a system of inequity, it continues to socially thrive through existing assets-based relationships. The design process should amplify these strengths instead of, as has traditionally been done, amplifying the negative narratives.

In Figure 3, we present how an assets-based approach should ideally facilitate understanding of lived experiences including inequities and existing power structures. An assets-based approach not only respects and values existing strengths in the community but also views inequities and power structures from the viewpoint of the community--not a traditional top-down approach from the financially powerful to the marginalized. Through valuing, respecting, and including communities in the design process, the gap of inequities may be minimized. In the co-design process, knowledge ideally travels both directions, bridging the inequities gap and facilitating transfer of knowledge from the community to power structures and vice versa. This two-way transfer of knowledge has the potential to: **1) elevate the lived experiences of the community for social change, 2) empower the community with strong understanding of the way researchers and designers create digital tools, and 3) foster informed participation of community members in co-design processes.**



**Figure 3. Assets-based approach bridges inequities to foster two-way transfer of knowledge and informed participation in the co-design process.**

## CONCLUSION

There are unique cultural, contextual and developmental considerations to be made when designing technology and online spaces for Latino youth in the U.S. Historically, systemic barriers have prevented their representation from the groundwork of academic and industry research and design. Effects from these barriers have shaped isolating experiences of marginalization, as currently seen in the C-19 experience. Healthcare is a human right and provides an example of an opportunity for academia and industry to bridge existing inequities and design digital tools that transform daily well-being and build on existing community strengths to survive health disasters such as C-19. Giving agency to Latino youth to voice their narrative of strengths, needs, and assets will provide opportunities in co-design processes to benefit the community and contribute to the social good. To address this large undertaking, we must utilize an assets-based approach to develop a digital health space in which young Latinos and their communities trust, utilize, and promote health information. Additionally, we must evaluate the existing power dynamics of academic and technology organizations that are researching and designing digital tools that may empower Latino youth. An assets-based approach to design includes reflection on the external power dynamics that impact a community's digital media use.

This paper has focused on Latino youth resilience, familism, increased use of digital media by Latino youth and its broader implications. This is a call to action for designers to value and understand the lived experiences of Latino youth before undertaking design work in Latino communities. We also hope this is a call to action for industry and academia to evaluate the effects of ethnic and racial inequality in their power structures. If we are to continue conducting ethical, human-centered work, we must be inclusive. Broader implications of an assets-based approach have the potential to foster a social movement to promote two-way knowledge dissemination and dismantle existing inequitable power structures.

## REFERENCES

- [1] S Aguilar-Gaxiola, G Loera, L Méndez, M Sala, Latino Mental Health Concilio, J. Nakamoto, UC Davis, CTSA, Brian S. Desmond, Molly A. Laux, Carolyn C. Levin, Jiabin Huang, Brent C. Williams, Megan McGeehan, Rebecca DeMaria, Pamela Charney, Ashita S. Batavia, Julie S. Darnell, Richard D. Gibbs, and Patricia H. Gibbs. 2010. Community-Defined Solutions for Latino Mental Health Care Disparities: California Reducing Disparities Project, Latino Strategic Planning Workgroup Population Report. *J. Community Health* (2010).
- [2] Monica Anderson and Jingjing Jiang. *Teens, Social Media & Technology 2018*.
- [3] Gabriel Chamie, Carina Marquez, Emily Crawford, James Peng, Maya Petersen, Daniel Schwab, Joshua Schwab, Jackie Martinez, Diane Jones, Douglas Black, Monica Gandhi, Andrew Kerkhoff, Vivek Jain, Francesco Sergi, Jon Jacobo, Susana Rojas, Valerie Tulier-Laiwa, Tracy Gallardo-Brown, Ayesha Appa, Charles Chiu, Mary Rodgers, John Hackett, Amy Kistler, Samantha Hao, Jack Kamm, David Dynerman, Joshua Batson, B. Greenhouse, J. DeRisi, & Diane Havlir.

2020. SARS-CoV-2 Community Transmission During Shelter-in-Place in San Francisco. *medRxiv* (2020).
- [4] Anita Chandra, Malcolm Williams, Alonzo Plough, Alix Stayton, Kenneth B. Wells, Mariana Horta, and Jennifer Tang. 2013. Getting actionable about community resilience: The Los Angeles county community disaster resilience project. *Am. J. Public Health*.
- [5] Arthur Elster, Julie Jarosik, Jonathan VanGeest, and Missy Fleming. 2003. Racial and ethnic disparities in health care for adolescents: A systematic review of the literature. *Archives of Pediatrics and Adolescent Medicine*. DOI:<https://doi.org/10.1001/archpedi.157.9.867>
- [6] Carmen R. Isasi, Deepa Rastogi, and Kristine Molina. 2016. Health issues in Hispanic/Latino youth. *J. Lat. Psychol.* (2016). DOI:<https://doi.org/10.1037/lat0000054>
- [7] Mizuko Ito, Candice Odgers, Stephen Schueller, Jennifer Cabrera, Evan Conaway, Remy Cross, and Maya Hernandez. 2020. *Social Media and Youth Wellbeing: What we know and where we could go*. Irvine, CA.
- [8] Jewel Jordan and Julie Iriondo. 2019. *Population Estimates Show Aging Across Race Groups Differs*. Retrieved from <https://www.census.gov/newsroom/press-releases/2019/estimates-characteristics.html>
- [9] Fran H. Norris, Susan P. Stevens, Betty Pfefferbaum, Karen F. Wyche, and Rose L. Pfefferbaum. 2008. Community resilience as a metaphor, theory, set of capacities, and strategy for disaster readiness. *Am. J. Community Psychol.* (2008).
- [10] Alexander N. Ortega, Ryan M. McKenna, Jessie Kemmick Pintor, Brent A. Langellier, Dylan H. Roby, Nadereh Pourat, Arturo Vargas Bustamante, and Steven P. Wallace. 2018. Health Care Access and Physical and Behavioral Health among Undocumented Latinos in California. *Med. Care* (2018). DOI:<https://doi.org/10.1097/MLR.0000000000000985>
- [11] Eileen Patten. 2016. *The Nation's Latino Population Is Defined by Its Youth*. Retrieved from <https://www.pewresearch.org/hispanic/2016/04/20/the-nations-latino-population-is-defined-by-its-youth/>
- [12] Franciso I. Pedraza, Vanessa Cruz Nichols, and Alana M.W. LeBrón. 2017. Cautious Citizenship: The deterring effect of immigration issue salience on health care use and bureaucratic interactions among Latino US Citizens. *J. Health Polit. Policy Law* (2017).
- [13] Chavez Phelps and Linda L. Sperry. 2020. Children and the COVID-19 Pandemic. *Psychol. Trauma Theory, Res. Pract. Policy* (2020). DOI:<https://doi.org/10.1037/tra0000861>
- [14] Marissa Raymond-Flesch, Colette Auerswald, Linda McGlone, Megan Comfort, and Alexandra Minnis. 2017. Building social capital to promote adolescent wellbeing: a qualitative study with teens in a Latino agricultural community. *BMC Public Health* (2017).
- [15] Erin M. Rodríguez and Lauren Smith. 2020. Provider Perspectives on Stressors, Support, and Access to Mental Health Care for Latinx Youth. *Qual. Health Res.* (2020).
- [16] Sam Sabin. 2020. 'No One's Accountable': Why Silicon Valley Struggles to Diversify Its Workforce.
- [17] Rashmi Shetgiri, Sheryl H. Kataoka, Gery W. Ryan, Lawren Miller Askew, Paul J. Chung, and Mark A. Schuster. 2009. Risk and Resilience in Latinos. A Community-Based Participatory Research Study. *Am. J. Prev. Med.* (2009).
- [18] Gabriela L. Stein, Laura M. Gonzalez, Alexandra M. Cupito, Lisa Kiang, and Andrew J. Supple. 2015. The Protective Role of Familism in the Lives of Latino Adolescents. *J. Fam. Issues* (2015).
- [19] Robin Stevens, Amy Bleakley, Michael Hennessy, Jamie Dunaev, and Stacia Gilliard-Matthews. 2019. #digital hood: Engagement with Risk Content on Social Media among Black and Hispanic Youth. *J. Urban Heal.* (2019). DOI:<https://doi.org/10.1007/s11524-018-0314-y>
- [20] Jamile Tellez Lieberman, Krystal Lobban, Zujeil Flores, Kristin Giordano, Emily Nolasco-Barrientos, Yoshiaki Yamasaki, and Ana P. Martinez-Donate. 2019. "we All Have Strengths": A Retrospective Qualitative Evaluation of a Resilience Training for Latino Immigrants in Philadelphia, PA. *Heal. Equity* (2019). DOI:<https://doi.org/10.1089/heq.2019.0070>
- [21] Karina J. Wilkie. 2011. Academic continuity through online collaboration: mathematics teachers support the learning of pupils with chronic illness during school absence. *Interact. Learn. Environ.* 19, October 2014 (2011), 519–535. DOI:<https://doi.org/10.1080/1049482090354554>
- [22] 2020. COVID-19 Race and Ethnicity Data. Retrieved from



- [23] <https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/COVID-19/Race-Ethnicity.aspx>  
2020. UC System Workforce Diversity. Retrieved September 30, 2020 from  
<https://www.universityofcalifornia.edu/infocenter/uc-workforce-diversity>
- [24] 2020. USC Releases Student and Faculty Diversity Numbers. <https://news.usc.edu/101163/usc-releases-student-and-faculty-diversity-numbers/>
- [25] 2020. Stanford Report on the Faculty. September 30, 2020 from <https://stanford.app.box.com/v/faculty-report-2019>