

Digital Gap: How COVID-19 Increased Technology and Internet Access Inequities and Our Ethical Responsibility to Closing this Gap.

COVID-19 halted the global economy and claimed the lives of millions across the globe. In the US alone, COVID-19 is responsible for the death of half a million lives as of August 2021 (CDC). Moreover, Covid-19 has cost over twenty million Americans their jobs and forced many people to stay indoors. However, this paper is interested in speaking to the existing and new inequities that COVID-19 has shed light on. It will describe how lack of access to technology and the internet during covid-19 has disproportionately impacted minority and marginalized groups like immigrants and refugees who are essential workers and low-income communities. These costs come from a lack of access to jobs, education, social and health services. It will also suggest ethical recommendations in shifting our focus, thinking, and action on how collaboration and collective thinking can ease endemic injustices in our nation and lead us to a bright future.

On January 23, 2020, the Center for Disease Control and Prevention (CDC) declared the novel coronavirus known as COVID-19 in the US. The first case of COVID-19 was found in Everett, WA, 20 minutes away from where I live. The entire world was panicking and did not know the fate of this virus. However, we had a president and an administration that downplayed the risks of the virus. The president also lied to the entire country about the seriousness and the impacts of COVID-19 when, on January 22, 2020, he said, "We have it totally under control. It is one person coming in from China" he continues, "It is going to be just fine." What followed was an indefinite uncertainty of when the virus will end or how it will impact our lives. The virus infected over 114 million Americans up to date, or a third of the country, and over 600 thousand people died due to COVID-19.

Furthermore, more than 20 million Americans lost their jobs (Petrosky-Nadeau, Nicolas, and Robert G.). The entire school system in the US was shut down except few school districts that were pandemic deniers. Millions of people could not access health due to the in-person visitation restrictions and the overpopulation of hospitals by COVID-19 patients. The pandemic has shed light on America's existing inequities, such as lack of access to technology and the internet among minority groups, by limiting these communities' choices in accessing jobs, education, and health.

On July 19, 2021, my family and I celebrated our fifth anniversary of coming to the States. My family is originally from Somalia, but we lived in a refugee camp in Kenya as refugees all my life. Most of my siblings were born there, and after my family's stay in refugee camps for over 25 years, we were finally lucky to be sponsored by the UN to relocate to the US as refugees in July 2016. As soon as the COVID-19 wave of infections hit the US, my family and I were impacted by it. My mother lost her childcare job, and I could not work in an in-person work setting anymore. Similarly, COVID-19 disproportionately impacted the jobs of minority communities because the majority of us work as essential workers. Almost all essential jobs were shut down from farm to food stocking in grocery stores and deliveries to taking care of children, like my mother and the food industry.

The risk of contracting COVID-19 was very high among minority communities due to their job circumstances and unconventional and horrific working conditions that treated essential workers like robots. At the same time, essential workers depend on day jobs/paycheck to survive. As a result of COVID-19, many essential workers were laid off from their jobs - and this caused an economic crisis for many in my community. As a result of job loss, many in my community cannot pay rent and are at risk of becoming homeless. Food shortages that were already common

among minority communities became even more prevalent when there were no new and safer jobs to apply for. As an essential worker, most of the jobs you do are labor and physically dependent. This drew a clear line on who can shift to working virtually and who could not. Many people who went to school and had access to the internet and technology (devices) could shift and try a hybrid virtual job. For instance, tech companies like Microsoft, Amazon, and Google shifted their non-essential jobs to virtual ones. However, few other disciplines were able to shift to a virtual working environment and compensate their employees. As a result, companies were forced to lay off the majority of their workers, most of whom are essential workers.

COVID-19 also impacted the education system in the US. For instance, my neighbor, whom I am going to call Halima for confidentiality reasons. Halima is an Ethiopian single mother of 2 who is also a refugee from Kenya. Before COVID-19, she was a student at South Seattle College pursuing nursing. Halima was also a part-time home care assistant. She was able to go to school with the help of financial aid and by sending her teenage kids to elementary and middle school. While her children are at school, Halima took classes and worked, but after school closed due to COVID-19, both she and her children were forced to stay at home. The responsibilities at home became overwhelming for her, and she was forced to take part-time classes forfeiting her financial aid assistant. After two quarters, she could not pay for the one class she was able to take due to her responsibilities at home and was forced to drop college in the meantime.

Furthermore, Halima only had a single Chromebook at home for use for both her kids. This was difficult for the two kids because their class times started online simultaneously, but only one computer was available. Many other minority groups are going through similar issues due to the lack of technology devices to access education. However, availability alone is not the

issue, but also the knowledge to use these devices. Most immigrants and refugee communities cannot help their children at home because they do not know how to use computers. This creates a vast social inequity in our school districts when our communities need the most help.

When my family first arrived in the States, I was the only one who could speak limited English. Also, I knew a basic understanding of how to surf the internet. In the beginning, it was challenging to find the right social services or any other services. I remember going to the Department of Social & Health Services (DHS) office to get food stamps. However, upon entering the office, we were required to get a ticket from a machine and enter our basic information like name and address. I did not know how to do this.

Similarly, when we went to an apartment office to ask for vacancies, we were asked to go to their online page and get an appointment, and we did not know how to do it. Fortunately, with my limited English and internet skills, I could help my family because I knew how to ask for help in English. However, this is not the case for many new immigrants and refugees. Living in Seattle, WA, or any other metropolitan American city is difficult for immigrants and refugees due to computerized systems; even the library requires logins to access books. In addition, services traditionally done in-person, such as going to an office to ask for lease information, are now automated and require internet access and knowledge of use to access.

COVID-19 further impacted my community due to the closure of in-person services that provide essential support, such as DHS and health services. Most low-income and minority communities who are at the same time essential workers do not have health benefits. The lack of knowledge on how to use and lack of access to technology and the internet made it harder for these communities to use telemedicine, virtual doctor's visits.

Additionally, undocumented immigrants and refugee communities do not trust the health system in this country due to fear of their information being disclosed if they use online platforms leading to their deportation or arrest. This is a big issue because if we want COVID-19 to cease, we need everyone to take the vaccine. However, some people have legit fears from our health systems due to their historical relationships with the health system.

As soon as the pandemic was declared in the US in 2020, "25 million people lost their job in April alone," Petrosky-Nadeau declares. Most of these jobs were essential jobs that required in-person work. Petrosky-Nadeau further explains the impact of COVID-19 on jobs, "unemployment rate spiked to the highest level recorded since the Great Depression of the 1930s" (Petrosky-Nadeau, Nicolas, and Robert G.). Losing jobs significantly impacted low-income communities who are majority immigrants and refugees. When parents lose jobs, it impacts their access to housing and their children's ability to learn virtually. There is a direct link between access to jobs, income, and the ability to access technology and the internet. However, for many who lost their jobs, their families were impacted as Katz et al. explain, "students who reported greater financial hardship since the start of the pandemic experienced significantly more connectivity, device, and faculty communication challenges during remote learning" (Katz, Vikki S., et al.). This is because parents are stressed about finding income and providing food, which takes away attention from children. Sometimes, internet costs or quality devices for online education access are not available to the children because every penny is used for food and other bills.

Since the pandemic started, the education sector was also significantly impacted, and for many minority communities, they were left behind. There are currently no predictions on how long in-person learning will fully return, and "many students will continue to learn remotely in

some form until the pandemic recedes" (Katz, Vikki S., et al.). Many schools were not ready for the rapid shift to online, and priorities had to change from virtual learning access to food security issues. Anne Walters explains, "lower-resourced districts with as many of 100% of their students relying on school breakfast and lunch programs focused initially on food security, and thus were slower to address access to learning." On the other hand, different families and communities had different outcomes with the shift to online learning. For example, the transition to online has been easier for children in two-parent families who are often with higher resources (Walters, Anne). However, in single-parent homes, large families with a multigenerational family who live in small spaces, families where one or both parents are without advanced education, and the 22% of the homeless who are children, it was impossible to shift to online learning very quickly (Schneider, 2020).

According to Lenny Schad, "one of the most prevalent gaps in the virtual learning scenario is student devices and connectivity (Schad, Lenny). This is due to different schools being funded according to their regional income, and the funds are not equally distributed. So, many students who live in low-income houses and regions with lower income taxes have less digital access to education. However, even when access gaps are closed, white and affluent students are more likely to use technology for creativity and problem solving with greater levels of mentorship from adults. In comparison, students from minority groups and low-income neighborhoods use technology more commonly for routine drills with lower levels of adult support (Reich, Justin). Thus, access alone is not the issue; the more significant issue is the lack of technical knowledge; students and many staff members do not know how, why, and when to use technology appropriately (Herseim, Jennifer).

Telehealth or virtual doctor visits has enormously changed course for accessibilities such as shortening distance for people living in rural areas who would otherwise travel long distances to access health. Also, it has helped with making it more convenient for people with mobility issues and for low-income parents who would not afford daycare for their kids during doctor's visits. Also, telehealth has come in handy now because of the pandemic since in-person interactions were limited or restricted. However, who has access to telehealth and who is left behind is the question we need to ask ourselves. Even with online access, some parents who are students and working from home can be stretched thin during the pandemic. There would not be enough doctors in some areas even if in-person visits were allowed as Matt Huston describes, "tens of millions of Americans live in regions with shortages of mental health professionals" (Huston, Matt). Virtual health would fill this gap because of the easy access in one's comfort zone, home. However, as virtual doctor visits have become more common, inequitable online access has become a public health issue (Ewen, Lara.). This is because approximately 20 million people still lack home broadband access (American Libraries). Some experts argue that it is clear that we have gaps in who has access to devices and the internet, but the more significant digital gap issue to solve is--digital literacy (Herseim, Jennifer).

During the pandemic, age, income, language, sex, and race/ethnicity factors have affected whether people use telepractice (Weider, Kristen, and Joneen Lowman). This is particularly true in low-income and minority communities that contain multigenerational family households. The digital health divide is just widening (Ewen, Lara). Immigrants and refugees have language barriers; even with devices available, it requires knowledge to use and connect with doctors online, which might not be available literacy to many new immigrants and refugees. All of these limits the ability of immigrants and refugees to access social and health services online,

including telehealth. Also, telehealth can be challenging for privacy issues for those living with extended family members who would not like to disclose their medical conditions. These are the equity issues telehealth is not currently focusing on.

When it comes to closing the digital gap, two big solutions came to mind: making space and increasing reach.

How do we create equity and informed ethical jobs? The answer to this question requires collective thinking. People lost many jobs due to the pandemic. Companies (employers) should consider creative ways to include essential workers in their new job creation plans. They should create much more inclusive online spaces, including language and culture-appropriate spaces for those impacted the most. Companies should create safer and more inclusive jobs that respect the dignity of every human being as a complete autonomous being who is not a means to an end but an end in themselves. They should think about a parent who needs to feed their children by paying fair wages to allow people to meet their needs. Freedom for many people means more than being alive. Companies should think about the long term of the people who depend on them. They can close the gap by investing in the long-term future of their employees by investing in worker's health, safety, and education. This will allow workers to earn a decent wage, build their capacity to develop long-term, and live a prosperous life.

What does making space and increasing reach look like for education? While the pandemic has forced every district to shift to virtual learning rapidly, teachers and stakeholders need to consider equity in educational technology planning. Every kid/student must start from a level plain field. This is an equality issue, and even though we may never attain it, we need to aspire to reach this goal. In order to fill the digital gap, some experts recommend a device for every student and teacher; the ability for these devices to connect to the internet anytime,

anywhere at an affordable price (Schad, Lenny). The issue of access to technology and the internet is a community issue, and not just school districts and resolution can occur if, and when, the following groups come together: the local, state, and federal governments; telecom carriers; the business community; and school districts. Other experts argue that the curriculum matters and not whether students learn from a computer or a book. Therefore, it is essential to challenge students to communicate, collaborate, and critically think about their learning content.

Technology can be good or bad, depending on its use. Teachers need training and equipment to do the creative work technology can do to solve real-world problems. On the other hand, students need to be good digital citizens, treat others well, and protect themselves online (Herseim, Jennifer). This means providing not only space but also mentorship and many other incentives for students from minority communities to access and engage in digital progress. Both schools and afterschool programs that encourage learning of STEM and digital ethics need to be created among minority communities. This will promote the independence of our communities and create opportunities for the student to dream of becoming whom they want to be. It will also create a well-informed and ethical workforce in one of the ever-growing fields such as STEM.

Social services like libraries have failed our communities. Today, the core of the library's mission is information access to all citizens (Ewen, Lara). Currently, everything shifted online, and buildings are closed. Only those with access to the internet and devices can access public services such as libraries. For many minority communities, libraries are more than books alone; they serve us voting booths, job application help centers, printing works, cooling stations, children's day out, language and citizenship classes, research, free internet, and technology access spaces, etc. So, what are our current library systems doing to solve these equity issues after closure for over a year? Some libraries in the country have tried to provide public Wi-Fi

outside the buildings so that patrons can come near the library buildings to access the internet for free (Julie Walker). Another solution is for libraries to lend their patrons mobile hotspots/Wi-Fi devices that they can use and return as needed. Also, libraries are great spaces for telehealth for people who do not have access to the internet and technology at home. An often-cited solution is to have clients travel to a local health care facility with the technology to have their doctor's appointments (Weidner, Kristen, and Joneen Lowman). Weidner, Kristen, and Joneen Lowman have tried to transform a library room into a telehealth space where people could come and have virtual doctor's visits and leave after their appointment. There are so many libraries that are currently just closed but could help our communities more than providing information to a few.

Additionally, the government and companies can build better bandwidth infrastructures in low-income neighborhoods for better accessibility. Similar to educational needs, when creating social services -- awareness of accessibility, language, physical ability, mental and emotional factors must be considered. Also, most people in cities like Seattle cannot afford to have cars, and the bus systems are unreliable. Therefore, there is a need to have reliable bus routes for those who do not have cars and are trying to access social services. Furthermore, equity in social service access for senior citizens and people with medical conditions has to be considered. This could look like health screening table booths near their homes and free delivery services.

In conclusion, the impacts of COVID-19 on lives and resources are enormous. It has widened the digital gap in our communities and impacted minority communities the most. Loss of jobs, educational inequity, and inaccessible health services result from the pandemic, and we are not sure when it will cease. Many people are trying so hard to feed their families, and the toll on mental health crises is vast for many who are trying to work virtually while taking care of

children or senior parents. On the other hand, essential workers working in unconventional working spaces are at risk of contracting COVID-19 or lose their jobs, their only income.

Households with limited resources and language skills have difficulty accessing social services online or providing technology, internet, and the mentorship required for their children's success in virtual learning. There is a gap in technology and internet access in the U.S., and over 20 million Americans do not have any network.

However, access to technology and the internet alone is not the issue, but the knowledge of how to use them. Some of the solutions that we discussed include making space and increasing reach. There is a need for creative, safe, and more inclusive workspaces. We also discussed the need for companies to treat their workers with human dignity and pay fair wages to live a decent life. We also talked about how companies need to consider language, ability, and culture in creating more inclusive work environments. We discussed the need to provide a device and fast internet to every student. Also, both students and teachers should learn how to be good digital citizens and learn safe use of technology and the internet. We talked about the need for libraries to step up and serve our communities and shift their methods to include more people who do not have access to technology and the internet. Finally, we talked about how filling the digital gap requires collective action from the local, state, and federal governments, telecom carriers, the business community, and school districts. We have a responsibility for each other. We can only prosper if we work together.

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