



# COVID-19, eLearning, the Digital Divide and Underprivileged Children

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## Abstract

Within the last two years studies show that many of our youth are lagging in education due to the pandemic lockdown, the application of eLearning with the lack of preparation, and a shortage of adequate learning technology and updated technology (Povich, 2020). Schools moved away from paper homework and in-person learning, and to online homework unfamiliar to students. In some areas, the schools were able to provide technology that the students could take home, but this did not always come along with Wi-Fi, hotspots, or some type of internet to make it functional. In other areas, the school systems were not able to fund the distribution of technology to each student. The pressure students feel from not having access to the technology they need leads to academic decline. Students with lower socio-economic status and limited access to eLearning and technology were unable to complete their homework or receive an adequate education.

**Keywords:** eLearning, COVID pandemic, Educational technology, Underprivileged children

## Introduction

Not having access to technology will influence student's post-secondary and vocational-technical learning. These students find themselves behind their peers, stressed by the new technological advances that they did not grow up with, or faced with the possibility of not being able to attend a university based on their level of competency. This paper, based on a review of the literature, is a study of how the effects of the Coronavirus lockdown exacerbated the situation of not having appropriate technology and examines the challenges that education endured during the COVID-19 pandemic. It also discusses how educators and public policymakers attempted to close the gap disparity between student access to technology and the effect of not having that technology disadvantaged vulnerable students.

## The Digital Divide

The pandemic lockdown of 2020-2021 brought to light the digital divide within our school systems which has been a topic of discussion in the last decade. Before COVID-19, many schools had implemented eLearning

and online learning on a limited basis for their students such as one-to-one initiative for students to have their own computer. Data collected by the Pew Research Center between 2014 through 2021 shows just how much our youth, throughout the United States, have been affected by the lack of internet resources. Internet homework and resource use have been on the rise since around 2014. Many students had been left out and were struggling to keep up with what is necessary for them to have successful educational experiences (Haderlein et al., 2021). Gaps in technology and technological updates and systems that were inaccessible had caused some students to fall behind (Di Pietro, 2023). These gaps and issues will affect students for their whole lives and deserve to be addressed. In a PEW Research Center 2015 survey, which was when digital homework in middle and high schools was on the rise, 35% of lower-income households with school-age children did not have broadband internet connections at home (Lake & Makori, 2021; Vogel, 2021). The Pew Research Center reported that data analyzed from the 2018 National Assessment of Educational Progress (Havard et al., 2018) showed less than 6% of middle and high school-age students did not have internet at home for school

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purposes. In 2018, around 94% of middle and high school-age students were using the internet at home for school purposes, and in 2020, this number would include classroom meetings as well (Bushweller, 2020; Povich, 2020).

A 2018 Pew Center survey showed that students (ages 13-17) were affected by the lack of effective learning technology, 17% said they were often or sometimes unable to complete homework assignments because they do not have reliable access to a computer or internet connection. Teens in a household with an annual family income below \$30,000 were also more likely to say they lacked the appropriate technology and internet access than teens with a family income of at least \$75,000 a year (24% vs. 9%) (Havard et al., 2018; Vogels, 2019; Auxier & Anderson, 2020). During the COVID lockdowns, in many suburban school districts around 65% of students said that their homework was based online whereas 58% of students in urban schools stated that this was the case. In the same survey, 12% of the teens questioned stated that they sometimes used public Wi-Fi due to the lack of home internet resources. Of the 12%, the majority were from low-income families. (Auxier & Anderson, 2020; Di Pietro, 2023.)

The COVID pandemic forced schools across the nation to establish or improve their online platforms so that students could still learn during their time at home. Students in economically deficient areas were already experiencing many challenges to complete assignments, (Goldberg, 2021). Many teachers had little or no training with technology and a considerable number were reluctant to teach in this new paradigm of teaching methodology, (Johnson et al., 2016). Existing gaps in the technological updates and systems that were available for some students made the situation worse and caused some students to fall behind, (Auxier & Anderson, 2020). Unless this issue of appropriate implementation of technology and teacher training is continued as a priority, these gaps, and issues will continue to affect students in their education.

### **Responding to the New Paradigm in Teaching**

In response to the school closings, one in every three school districts handed out mobile broadband or hotspots with their COVID response plan on a national level. (Lake, 2019). Some school districts could afford to loan out and provide students with laptops if they did not have access to them. Between April 2020 to March 2021 the number of computers rose from 88% to 94% (Hemphill et al., 2021). The governor of New Jersey

reached out to corporations and used state funding to help with the needed technological upgrades for students (Povich, 2020). In other areas in the United States where computers and laptops were limited or out of stock; teachers worked overtime to try and call each student in their class and individually help them complete assignments, drop off textbooks, or provide paper homework instead of having it online. This still left a remaining portion without access to broadband services, phones, or other technology necessary for the current education climate. Many of the communities where there is a greater need for families to have computers are not seeing it, as there is also a geographical divide determined by distance, topographical barriers in rural areas, and distances that prohibit access to these technologies by some school districts (Alsarayreh, 2023; Haderlein et.al., 2021; Polikoff et.al, 2021).

The Education Trust data researchers have found that in the last ten years (or since 2012), the percentage of students who attend college immediately after high school dropped by 50%, according to the US Census Bureau (Haycock, 2020). Much of the data collected showed this to be due to poverty and low-income-related issues, which included students not being ready for college. Although the number of students attending college right after the high school dropped, the Education Department has also concluded that by the end of 2020, 2/3 of jobs will require at least the completion of post-secondary education or training (Alsarayreh, 2023; Haderlein, et al., 2021; Ogundari, 2023).

Katie Haycock, the president, and CEO of the Education Trust, a national nonprofit educational advocacy organization advocates that we have the students who need the most and have the least access to educational facilities to gain more from the world; but we are providing them with even less than what they came with (Haycock, 2020). This is the issue at hand and the problem that many school districts in low-income areas are facing. Charles Best, who is the founder and CEO of DonorsChoose.org, takes this challenge and provides a solution. He advocates crowdfunds for teachers in low-income/high-need areas, and believes that states are not funding the schools fully and equally, and in many districts, it is due to inadequate budgets (Hess, 2020; Wolff & Carlson, 2021). Although many organizations are striving to help these students, it does not always reach the low-income areas that need it most (Chingos & Blagg; 2017; Cristia et.al., 2017). School districts have an obligation under Title VI of the Civil Rights Act of 1964 to provide students with equal



access to educational resources without regard to race, color, or national origin. These educational resources include, for example, access to safe school facilities, instructional materials and technology, and skilled educators (Goldberg, 2021).

Private enterprises assisting schools in closing the digital divide is new in K-12 education and has the potential to transform the fabric of community support for education. The inclusion of private initiatives could encourage increased connectivity, provide better digital literacy, and investment of resources to build better community/school relations. Parents and community members can be given opportunities to learn technical skills as well, either alongside students or as a separate component of innovation. The acquisition of such skills enhances the capability and potential of a community which can result in lasting gains (Vegas et al., 2019)

### The Potential to Transform Learning and the Community

Elaine Povich (2020) cited John Rury, professor emeritus at the University of Kansas and author of *Urban education: Still separate and unequal* (Urban League of Greater Kansas City, 2019) on racial and socioeconomic disparities in Kansas City's educational achievement. He said the biggest concern of going to distance learning is "that the achievement gap is going to get worse. The gap is going to widen." Povich (2020) paraphrases, "...it's not just the issue of slow or no internet connections in some areas. That can be addressed by distributing hotspots or allowing students to connect in a school parking lot, he said. But children, especially younger ones, need parental or other supervision for distance learning to work." Although the previous information of this study makes the outcome for low-income students look grim, all is not lost.

There is still a lot that can be done to help our youth be able to learn and thrive in a conventional unthriving atmosphere (Goldberg, 2021).

To encourage teachers to use technology and implement the change necessary, teachers need to be provided with the tools and materials to help students gain their academic foothold so that they can be more successful in their future endeavors (Collis, 2020). In addition, students also need to be provided with faster and better technology to improve student learning and better test scores (Collis, 2020).

To improve education and encourage student interest in STEM education, each student must be provided with all the resources that are needed for them to

successfully learn. The Department of Education should create a policy that ensures better and equal opportunity for our students which will enhance learning everyone in school between the grades of kindergarten and twelfth. This change would be seen at the university level. The policies and rules for government-funded distribution need to be reviewed on a national level so that our students who need it most see the changes they so greatly deserve. The pandemic has identified the need for electronic learning equity for all students and how it can be implemented to provide learning opportunities for all students. Now is the opportune time to take the collected data and implement the changes needed to improve electronic learning to provide learning equity for all students so we can "fix" our education system.

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