The Internet isn't a Luxury Anymore: How Educational Leaders Can Promote Equitable Digital Access for all Students

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How do we ensure that all students have the tools and resources they need to succeed in today's educational context? In this article, we explore how the right to education generally and to specific educational tools and resources in California have been protected through litigation in the past; how the COVID-19 pandemic revealed technology-based educational inequities in our system that were previously unacknowledged; and, we propose strategies that educational leaders and legislators who seek to provide equality of educational opportunity may consider in the distribution of educational resources moving forward.

Keywords: access, internet, education, COVID-19, leadership

California courts have long recognized education as a fundamental right—one that should not be determined by a student's wealth (Serrano v. Priest, 1971). In furtherance of this principle, in 2000, a group of nearly 100 students in San Francisco County filed a class action lawsuit against the State of California, claiming that the State failed to provide public school students with equal access to instructional materials, safe and appropriate educational facilities, and qualified teachers (*Williams v. State*, 2000). In August 2004, the parties entered into a settlement agreement in which the State agreed to provide all students with the tools they needed to learn—standards-aligned instructional materials and clean and safe schools (ACLU, n.d.). As schools moved to all-virtual instruction in response to the COVID-19 pandemic in 2020, the definition of equal access to instructional materials shifted, uncovering additional cracks in our educational infrastructure—all students did not have the access they needed to learn in a virtual world.

The broad question motivating this article is: How do we ensure that all students have the tools and resources they need to succeed in today's educational context? Our intent is to contribute to existing research in three ways. First, we discuss how the right to education generally and to specific educational tools and resources in California have been protected through litigation in the past. Second, we unpack how the COVID-19 pandemic revealed technology access-based educational inequities in our system that were previously unaddressed. Finally, informed by California's legal history and our current educational context, we propose strategies that educational leaders and legislators who seek to provide equality of educational opportunity may consider in the distribution of educational resources moving forward.

Frameworks

As it is in all systems, racial inequality is embedded in our nation's school systems (Diamond & Lewis, 2015). Therefore, it is imperative to address equity practices in individual classrooms but also at the systems-level and to "define equity in systemic terms" (Rigby et al., 2019, p. 487). Equity-driven leaders directly confront institutionalized and systematic conditions and processes that "exacerbate social inequities" (Galloway & Ishimaru, 2017, p. 7; Bensimon, 2005). They use their understanding of power and privilege systems to interrupt behaviors and processes that "reinforce historical inequities" (Galloway & Ishimaru, 2017, p. 7; Wilson, Douglas, & Nganga, 2013). In their 2017 study, Galloway and Ishimaru identified eight "high-leverage leadership practices" that "could mitigate disparities between dominant and nondominant students" (p. 7):

> [Engaging in] inclusive development of an equity vision, creating and sustaining an equitable culture, facilitating rigorous and culturally responsive teaching, supervising instruction for equity, equitably allocating resources, authentically collaborating with families and communities, modeling equitable practices, and influencing policy. (Galloway & Ishimaru, 2017, p. 7)

Galloway and Ishimaru (2017) concluded that to break down structural barriers to non-dominant student success, educational leaders must shift their focus from school-site or district-specific issues to a more collective effort of "transforming and creating new cultures and practice" and by revealing "current and historical practices that have maintained inequities, negotiate contradictions that emerge in the process, create new conceptions, and try out radically different practices, policies, and actions" (p. 26). It is through this specific and systems-focused lens of equity-driven

leadership that we examine the issue of digital access during COVID-19 distance learning and the implications for practice as California students head back to in-person instruction.

Our discussion here is also informed by a framework of digital equity. As Hall et al. (2020) note, pre-COVID literature on technological, pedagogical, and content knowledge (TPACK) often fails to acknowledge how context impacts the integration of technology into instruction. The literature's failure to address the importance of context contributed to a system unprepared to address the digital inequities that were revealed when we shifted to all online learning in the spring of 2020 (Hall et al., 2020; Dolan, 2016). While technology can enhance instruction and allowed for continued instruction during the COVID-19 pandemic, it also exacerbated "pre-existing inequities, establish[ed] new ones, and further marginalize[d] communities" (Hall et al., p. 436; Kimons, 2019; Young & Noonoo, 2020). Many students already underserved by educational institutions struggled to access online learning spaces because they lacked appropriate devices and/or internet access to engage in livestreaming and interactive instruction and the digital literacy skills "to fully experience online opportunities and engage in interactions that foster critical thinking about their content and the world around them" (Braverman, 2016, p. 16). Digital equity is particularly complicated in educational spaces because it implicates both access to technology and the ability of students to navigate technology and digital texts (Roswell et al., 2017).

For this discussion, we use Ritzhaupt, Liu, Dawson, and Barron's (2013) multi-level conceptualization of the digital divide, with three levels of access:

1. Does the school system provide equitable access to hardware, software, the Internet, and technology support within schools? (Ritzhaupt et al., 2013, p. 293)
2. How frequently are students and teachers using technology within the classroom and for what purpose they are using technology? (Ritzhaupt et al., 2013, p. 293)
3. Do student users know how to use [information and communication technology] for their personal empowerment? (Ritzhaupt et al., 2013, p. 294)

While the goal is for all students to have the knowledge and skills to use information and communication technology for personal empowerment, Ritzhaupt et al. (2013) note that this is contingent on first addressing access to technology at system (level one) and classroom levels (level two). In other words, to get to the point where we can address the "digital literacy gap", which involves developing more "capital-enhancing modes of adoption and participation" (Watkins, 2018, p. 10), we must first address the "access gap" (Watkins, 2012). Thus, we spend the bulk of our energy in this article focused on the educational system and how it can address the access gap.

Legal History of Equity of Educational Resources in California

California has long recognized equality of educational opportunity as core value protected by the State Constitution. With its 1971 decision in *Serrano v. Priest*, the California Supreme Court positioned the State of California to lead the nation in state-based challenges to equity in public school funding. In *Serrano*, plaintiffs alleged that the school funding system, under which school districts received about 60% of their funding from property taxes, resulted in unconscionable disparities in educational opportunities between students based on geography. The plaintiffs argued that the quality of their educational opportunity was directly tied to the wealth of their community, disproportionately impacting communities of color (Lockard, 2005). Because of

schools' reliance on property taxes, lower-income communities were also faced with higher property tax rates, further exacerbating the inequities. In a six-to-one vote, the California Supreme Court ruled that education was a fundamental right protected under the California Constitution and that wealth-based discrimination would be treated as a suspect class under California law. Specifically, the court further concluded that the state's school funding system "invidiously discriminates against the poor because it makes the quality of a child's education a function of the wealth of his parents and neighbors" (Serrano v. Priest, 1971, p. 1264). The California Supreme Court overruled the lower court's dismissal of plaintiffs' claims and remanded the case to the trial court.

In the wake of the *Serrano* ruling, the California legislature passed a series of legislative reforms in an attempt to improve educational funding equity. In 1972, it passed Senate Bill 90 to increase funding in school districts with low property tax revenue and cap property tax increases. Shortly after the enactment of Senate Bill 90, the *Serrano* trial (remanded from the California Supreme Court) began (*Serrano II*). The trial court was tasked with determining if the state funding formula, after the enactment of Senate Bill 90, met California's constitutional requirements. Between the *Serrano I* ruling and the beginning of the *Serrano II* trial, the U.S. Supreme Court issued its ruling in *San Antonio v. Rodriguez* (1972), concluding that education is not a fundamental right protected by the U.S. Constitution. Therefore, when the trial court in *Serrano* issued its opinion, it struck down the California education funding system based exclusively on its violation of the equal protection provisions of the California Constitution. On appeal, the California Supreme Court upheld the trial court's ruling, noting that "the constraints of federalism…are not applicable to this court in its determination of whether our own state's public school financing system runs afoul of state constitutional provisions" (*Serrano II*, 1976, p. 952). The court further confirmed the trial court's application of strict scrutiny and conclusion that the state's education financing system violated the California equal protection provision (*Serrano II*, 1976). The decision "required the state to eliminate all wealth-related differences in school funding, effectively resulting in a new litmus test: per pupil expenditures could not vary by more than $100 in all the school districts in the state" (Lockard, 2005, p. 389).

Meanwhile, California's property values continued to climb and "anti-tax advocates" pushed for property tax reform (Lockard, 2005, p. 390). Proposition 13, which passed with overwhelming statewide support in June 1978, dramatically changed the property tax structure in California, capping tax rates to one-percent of property value and limiting assessed property increases to two-percent annually. In response to the *Serrano II* ruling and the passage of Proposition 13, the California legislature scrambled to improve educational funding equity. Their efforts included diffusion of property tax revenue to local communities, increases in state-aid to offset the property tax changes, educational spending limits (Proposition 4, also known as Gann Limit), and distribution of lottery receipts into the state education system.

As the legislature attempted to build a more equitable system for funding schools, litigants continued to challenge equitable provision of educational services. In *Hartzell v. Connell* (1984), plaintiffs challenged fees charged by the Santa Barbara School District for students to participate in extracurricular activities. Plaintiffs argued that extracurricular activities were part of the educational experience and that they were part of the "free school" guarantee in the California Constitution. The California Supreme Court held that extracurricular activities were a "fundamental ingredient of the educational process" and were thus included in the "free school" guarantee (*Hartzell*, 1984, p. 42-43).

In another win for education funding advocates, Proposition 98 passed in 1988, setting minimum funding levels for elementary and secondary schools and protecting schools from many state budget cuts (Lockard, 2005). The education funding minimum was further increased with the passage of Proposition 111 in 1990.

Plaintiffs returned to the courtroom in *Butt v. California* (1992), challenging Richmond Unified School District's (RUSD) attempt to end their school year six-weeks early because of funding challenges. Plaintiff parents of RUSD students filed for an injunction to prohibit the district from closing early, arguing that it would deny their children "their fundamental right to an effective public education under the California Constitution" (*Butt*, 1992, p. 1244). On appeal to the California Supreme Court, the court held that while the state did not mandate a particular school year length, having one district close six-weeks early "would cause an extreme and unprecedented disparity in educational service and progress" (*Butt*, 1992, p. 1252). The court required the state to assist RUSD in funding the rest of its academic year, noting:

> [It is] well settled that the California Constitution makes public education uniquely a fundamental concern of the State and prohibits maintenance and operation of the common public school system in a way which denies basic educational equality to the students of particular districts. The State itself bears the ultimate authority and responsibility to ensure that its district-based system of common schools provides basic equality of educational opportunity. *Butt*, 1992, p. 1251

On the 46th anniversary of *Brown v. Board of Education* and in the wake of educational adequacy challenges in state courts across the nation, plaintiffs filed suit in *Williams v. State of California*, alleging that the state failed to meet its responsibility to provide minimal educational services to millions of children, particularly low-income children, immigrant children, and children of color (Oakes, 2004). Plaintiffs claimed that school buildings and access to other educational resources in low-income communities deprived students of "basic educational opportunities available to more privileged children" and their schools lacked "the bare essentials required of a free and common school education" (First Amended Complaint, 2000, p. 6). Specifically, plaintiffs alleged that their schools lacked sufficient classroom space and desks, qualified teachers, and books to support their student enrollment; school facilities were in appalling and unhealthy conditions, many lacking functioning bathroom facilities and/or suffering from insect infestation.

UCLA professor Jeannie Oakes submitted three of the sixteen expert reports examining the state of California's schools for the *Williams* case. In her report summarizing all of the expert reports, she identified the three conditions essential for an adequate education:

> Qualified teachers, relevant instructional materials that students may use in school and at home, and clean, safe, and educationally appropriate facilities….The enable students to learn the knowledge and skills that the state has specified as important. They promote students' chances to compete for good jobs and economic security. They provide students with the tools to engage in civic life as adults. The consequences of not having access to such teachers, materials, and facilities are particularly harsh in California's current high-stakes, standards-based education system. (Oakes, 2002a, p. 1).

In another report, Oakes focused exclusively on student access to textbooks, instructional materials, equipment, and technology (Oakes, 2002b). In this report, Oakes concluded that:

> Many California students do not have access to the number or quality of textbooks, curriculum materials, and technology that are fundamental to all students' learning and are available to a majority of California students. The insufficient supply and poor quality of the textbooks and instructional materials afforded to many students create a significant obstacle for those students as they attempt to meet the content standards the State has set, to pass state tests that are required for grade-to-grade promotion and high school graduation, and to qualify for competitive opportunities in college and the workforce. (Oakes, 2002b, p. 3)

Without sufficient instructional materials, including access to technology, Oakes (2002b) concluded that many students would experience difficulty in meeting minimal educational expectations. In his expert report submitted on behalf of the plaintiffs in Williams, Stanford professor William Koski (2002) agreed with Oakes, noting that "it is not fair to hold students and teachers accountable when they are hamstrung by resource deficiencies….Without the provision of sufficient resources, we argue, standards-based reform cannot live up to its potential" (p. 2).

In August 2004, before the California Supreme Court issued a ruling, the State agreed to settle *Williams*. Then Governor, Arnold Schwarzenegger acknowledged the persistent educational inequities plaguing the state, stating "Every child is guaranteed to get equal education, equal quality teachers, equal textbooks, homework materials, all of this stuff ought to be equal but it hasn't been" (Oakes, 2004, p. 1897). The settlement led to significant changes to California's educational system. In addition to providing nearly $1 billion to fix unsatisfactory school conditions, it also led to the passage of five new laws aimed at improving educational sufficiency and equity. For example, in California Education Code Section 60119, governing boards are required to hold public hearings to determine if "each pupil in each school in the district has sufficient textbooks or instructional materials, or both" to enable students to meet state performance standards.

Access to Technology

In 21st-century schools, students need more than just updated textbooks to truly educationally engage—they need access to technology. The COVID-19 pandemic revealed just how real that need is today. With schools providing one of the most reliable places for low-income students to access the internet (Watkins, 2018), schools closing in response to the COVID-19 pandemic and moving to online instruction had a devastating impact on low-income students, particularly in Black and Latino communities. While these students have proven adept at using social media and mobile platforms, research indicates that many of these student groups lack reliable home internet access (Watkins, 2018). Scholars have argued that "the digital divide is not a technological problem but a social problem and the consequence of underlying social inequalities" (Fuchs, 2009, p. 45). We agree and argue that, as a social problem, equity-driven leaders must address the digital divide with appropriate social solutions, including policy interventions to address the social inequalities specific to digital access in California's elementary and secondary public schools. In this section, we discuss student access to technology generally and how inequities where exacerbated during the COVID-19 pandemic; we argue that access to

technology and reliable internet access is no longer a luxury but an educational necessity—no less important that access to textbooks.

Inequitable Access Pre-COVID

Lower income communities may have sporadic access to internet services or no access at all. According to Pew Research Center (2019), only 39% of the median income group ($39,501 to $68,703) and 18% of the lower income group (less than $39,500) has access to internet service and a compatible device. When applied to schools, students in lower-economic communities have less access to both internet access and compatible devices. This gap causes unequal access to what is now a necessary tool for academic success. In 2015, the Hispanic Heritage Foundation conducted a study among students who frequently used the internet as a learning tool. Forty-nine percent of students were unable to complete their assignments due to lack of internet access; 48% of students reported that their grades were negatively affected by the lack of internet access (HHF, 2015).

Homelessness and Access Pre-COVID

The digital access and literacy gaps are even more pronounced for students in the foster care system, those experiencing homelessness, and unaccompanied immigrant youths. Students within these subgroups often struggle with stable housing; therefore, stable internet access is another barrier to their academic success. For example, in a pre-COVID study, Kelleher (2012) found that individuals experiencing homelessness relied on libraries as a place to seek shelter during the operating hours, to access the internet, and to charge electronic devices. For students who are homeless, charging electronic devices is particularly challenging. Muggleton (2012) noted that internet access through the libraries is a way to be inclusive and remove the continuous perpetuation of prejudice. However, there are some barriers that homeless and unaccompanied minors may face at libraries. For the majority of libraries, a minor must be accompanied by a parent/guardian and they must have a valid library card (which requires identification, verification of address, and an application signed by a guardian/parent). Therefore, for unhoused minors, libraries may provide resources such as internet access and a power source, however, not without some potential hurdles.

Schools and Access Pre-COVID

Schools provide students with reliable internet access and potentially a place to charge electronic devices. Petko (2012) conducted a study on the correlation between teachers' use of digital media in classrooms and integration in their teaching. Petko (2012) found that there were stronger correlations between teaching and digital media use when there were sufficient resources in the classroom for use. The more resources there are in a classroom, the higher the connection with digital learning (Petko, 2012). Dismissing digital learning in schools is no longer a viable option; our economy relies heavily on technology and digital literacy. The act of dismissing digital learning is dismissing a cultural norm that manages the way interactions occur in social and business interactions. Digital literacy is not a tool used simply for completing tasks, but as David Buckingham (2010) notes, "Digital literacy...is about cultural understanding" (p. 60). Social media functions similarly to colloquial language. Academic language and academic use of computers is

not a language that is simply inherent within students, but is taught at schools. The more practice opportunities that we can provide for students to use digital literacy skills, the more fluent students will become with the navigation of both digital realms and printed text. However, the practice opportunities granted to students must also be one where curiosity and errors are fostered to encourage learning. Rafalow (2020) argues that schools treat each socio-economic class differently, where students of color who are in low to mid-level class are "communicate[d by teachers that] their digital play is not valuable for learning". Similar to where play is part of the social, emotional, and physical developmental growth of a child (Ginsberg, 2007), digital play is part of the development of the digital language. If schools limit or discipline the type of play students can engage in through digital spaces, the digital language is stifled and leads to levels of inaccessibility.

Internet Costs and Access Pre-COVID

While there are students with access to the internet, their access is threatened by rising costs of internet services. As speeds for usage increase, so do the prices of the services. The average cost of internet services in the U.S. is $57.25 per month (McNally, 2020). For those who use streaming services or need to support multiple devices, the cost of internet service is greater. As the prices continue to surge, the number of individuals looking for access alternatives increases. For some, outdated infrastructure hinders necessary improvements. In rural areas, there is not sufficient infrastructure to support even the most basic internet speeds, to the point where most rely on phone calls or text messaging instead of virtual communication (Lee, et. al, 2020). This only creates a larger divide between those with more accessibility and those without. Lack of infrastructure does not rely on whether an individual has the means to afford the access, but instead relies on internet providers continuing to build infrastructure.

Fast food retailers are capitalizing on the demand for internet access by offering free wi-fi for their customers. While this strategy is designed to lure in patrons, it has become the way many Americans access the internet. In 2013, Troianovski reported that many students who lack access to internet services turn to a local McDonald's for wi-fi. For students, this has become a space where assignments may be comfortably completed for the cost of a snack or drink (Troianovski, 2013). Similarly, phone retailers have noted that students often use their in-store display phones and tablets to complete their assignments. For students on a tight budget, these options may be more financially and logistically feasible than paying for home internet access.

Heightened Gap Due to COVID-19

As COVID-19 began to spread, immediate responses were essential. For the sake of safety, the State of California ordered many establishments, including schools, to close their doors for in-person services. This was unprecedented to respond to a crisis of epic proportions. While access to both internet and devices was an issue for some students before the pandemic, the issue became much more dire when students did not have the resources available in the school building, at restaurants, or at libraries. In addition to access issues, teachers, administrators, and aides had to learn how to navigate the virtual realms of teaching; similarly, students and their families were faced with quickly learning how to use the digital classroom.

With restaurants, schools, and libraries closed, many students were forced to find alternative ways to access the internet. Districts and private donors, such as T-Mobile (T-Mobile,

2020), provided hotspots to support students with distance learning. Kern High School District (Buses as Wi-Fi Hotspots, 2020) and Coachella Valley Unified School District mobilized their school buses to serve as a hotspot alternative for their students. While these responses were what was best in the moment and time, it was not sufficient to ensure that all students had appropriate internet connectivity.

It is important to note that while connectivity and access are often used interchangeably, they are different. Access is having the resources at one's disposal and being able to use said resource at any given time. Connectivity in relation to internet services means the strength of the connection and the speed of the services provided (Levin, 2020). While access to the internet is important, students must also have adequate connectivity to access their classes. During the pandemic, many students relied on internet hotspots. However, according to Johnson and Burke (2020), hotspots do not provide sufficient internet access for many homes, particularly those that have multiple simultaneous users. Furthermore, hotspots are not an option in many rural communities because they lack the supporting infrastructure (Perrin, 2019; Park, Freeman, and Middleton, 2019).

Many internet providers grew out of existing telephone companies and have not yet updated their servicing structures to meet current demands. In some areas, the infrastructure set in place by them remains the same as when they only provided telephone services (Park, Freeman, and Middleton, 2019). Levin (2020) points out that while there have been steps towards improvement by existing companies, such as the switch from copper telephone lines over to fiber lines in which bandwidth can increase by 60 times, it does not mean that improvements are seen for all. Rural areas continue to lack the infrastructure needed to connect to internet services despite the updates that companies are making. The updates are beneficial to those in areas in which coverage was already provided, but those who lacked coverage before, continue to have limited to no access (Perrin, 2019).

Homelessness During COVID

Students experiencing homelessness or any housing insecurity were particularly impacted by COVID-related school closures. Closures exacerbated existing inequities well beyond just internet access and connectivity. Students without stable housing may also lack a place to charge their devices, secure access to the internet, or a quiet place to learn. The California Health Care Foundation (2020), estimates the number of individuals experiencing homelessness has increased during the pandemic, with 75% of the homeless population not living in a shelter. According to Oreskes and Smith (2020) from the Los Angeles Times, many shelters closed their doors to limit the spread of COVID-19. Those that have continued to admit residents have faced growing numbers of residents testing positive for COVID-19. Students experiencing homelessness or housing insecurity in this context are facing an even greater struggle to find stable housing, but also stable connectivity and access. Students facing homelessness or housing insecurity in rural communities may face even greater challenges if their communities do not have an established internet infrastructure. The weight and impact of unspoken damage added to an already marginalized community through improper access and equitable response during this shift is teeming.

Implications of *Williams* Legislation and Proposals for Action

In their 2004 law review article following the *Williams* settlement, Oakes and Lipton noted that the plaintiff's arguments in *Williams* were strikingly similar to those made by Charles Houston and Thurgood Marshall in the cases leading up to *Brown v. Board of Education*: "schools serving different students must be equal in their provision of basic educational conditions and resources" (p. 26). As evidenced above, it is nearly fifty-years later and school districts continue to struggle to provide equitable learning environments, even in the best of circumstances. In cases of emergency, such as the COVID-19 pandemic, some students are practically denied access to education because they do not have the technological resources (tools and training) to engage with digital learning environments. Equity-driven leaders can promote more equitable digital access (both in terms of basic access and connectivity) by focusing on multi-level system changes at the state, the district, and the school community levels. We propose the following changes to educational systems to improve digital access, and eventually, digital literacy.

1. *The state level*: we posit that the most immediate way to improve student internet access and connectivity is to include it in the definition of required "instructional materials" in the Williams legislation. As Oakes (2002) pointed out, nearly twenty years ago, insufficient access to learning spaces and materials make it nearly impossible for some students to succeed. We acknowledge that adding adequate internet access to the list of required resources provided by districts will be an expensive proposition. We certainly do not intend for this to become an unfunded mandate. The state would need to contribute significant resources to help districts make infrastructure upgrades and changes, through either a special grant program and/or the capital improvements program. The state may need to provide additional resources to rural communities to modernize their overall internet infrastructure.

2. *The district level*: The COVID-19 pandemic revealed that our school systems were not prepared to respond to a crisis of an extreme magnitude. While it is difficult to prepare for unforeseen events, health officials predict that we may face more pandemics in the future (Gill, 2020; World Health Organization, 2020). Districts can learn from their COVID response how to prepare for future crises, particularly in how they can support all online instruction should that be required in the future. Conducting crisis drills would provide district officials, teachers, parents, and students with opportunities to practice how they will respond in the face of necessary school building closures and to assess whether students have adequate equipment and internet access. Districts can start this process by auditing the devices they currently distribute for student use to ensure that they are updated and appropriate for current learning needs. They can also assess what adequate internet access looks like for all students. For example, many districts provided hotspots for students to use during the pandemic to access online classrooms. However, many districts only distributed one hotspot per household, rather than per student, resulting in slower internet speeds and/or inadequate connectivity.

3. *The school level*: We noted above that connecting to a reliable power source to charge technology devices is a challenge for some students, particularly those experiencing homelessness. Schools can make small changes to address this issue with limited cost.

First, we suggest schools create charging stations somewhere on school grounds where students can charge phones, tablets, and laptops. Administrators should work with teachers to identify a location that will be accessible to students but not distract from classroom instruction or interfere with rules about classroom device use. Adding additional outlets on the exterior of school buildings would ensure student access to a reliable power source 24-hours a day.

Conclusions

One of the lessons of the COVID-19 pandemic is that reliable and adequate internet access is no longer a luxury; it is a necessity utility. We rely on the internet for news, social interaction, business transactions, education, and more. Educational leaders and legislators must shift their approach to technology. It is no longer optional in the classroom. We must treat it like what it is -- a learning resource as necessary as textbooks or learning manipulatives . In this article, we call on educational leaders to examine their own spaces, their districts and schools, but also look at greater system changes that we can make to improve digital access and, ultimately, digital literacy for all students.

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