D2L
DESIRE2LEARN

Education Equity, the Digital Divide and COVID-19

A D2L Discussion Paper

Executive summary

D2L has a personal stake in educational equity. For over twenty years, D2L has worked to transform the way the world learns, with the belief that all learners should have access to the best possible learning opportunities and experiences. The COVID-19 pandemic has demanded rapid innovation in how we go to school and deliver education, making transformation more than an aspiration for some but a necessity for all.

Throughout the COVID-19 pandemic, we have and will continue to do everything in our power to support learners across the world despite the unique challenges we currently face. To do that, to truly reach every learner, we must call out and address inequities where we see them.

We know access is a foundational piece of educational equity and for many years, access to institutionalized education was inherently tied to access to physical school buildings. No matter the background and individual challenges of students, once inside the walls of a school, students had the opportunity to learn. However, a student's ability to learn has always been determined in part by their access to learning opportunities once they leave the school, including digital access.

COVID-19 has brought critical attention to the chasm between the learning opportunities of students who can access learning digitally in their homes and those who cannot. While these inequities existed and impacted students before COVID-19, the shutdown of physical school buildings has exacerbated them and brought necessary attention to this issue.

We know that learning already looks fundamentally different in the 2020–21 school year and will, perhaps, for years to come. We have the opportunity—and moral responsibility—to address the digital inequities that will not only improve the education of all students, but build resilience into our educational systems, today and well into the future.

This discussion paper examines some of the equity concerns correlated with COVID-19 and K-12 education—it provides foundational knowledge in the hopes of facilitating meaningful action towards alleviating inequity and creating resilient systems of learning. It includes recommendations for how education leaders can use the lessons they learned from the first seven months of online education delivery to propel us into a future where all students have more robust and equitable learning opportunities.

Background: School building closures and the risk of growing inequity

COVID-19 has been called by some as "the great equalizer,"[i] but those who work in education know that is untrue. Digital inequities have long existed in education.[ii] These inequities exist across regions and schools, and in individual students' homes.

They are rooted in where a student calls home—or if a student has a home—and correlate with race, class, first language, and the specificity of an individual child's needs.

SHUTDOWNS AND INCREASED RELIANCE ON HYBRID LEARNING

The immediacy of initial shutdowns left no room for remediation of long-standing technological inequity, or careful analysis of where those inequities lie. As schools across the world were forced to close their doors indefinitely due to stay-at-home orders, boards, schools, parents, and students without the digital infrastructure necessary to move to online learning were left in the wake of the pandemic. Educators were left to struggle with providing continuity of learning to their students in the uncertainty.

As stated in our policy brief, "A new door to the classroom," the COVID-19 pandemic has made digital learning infrastructure no longer a "nice to have" investment. It is a critical necessity for school systems to deliver on their core mission of learning under any circumstances.

DANGERS OF GROWING INEQUITY

COVID-19 and the dramatic shifts it forced upon our education systems poses a higher risk to students if we do not identify and remove barriers to equity to create the conditions needed for student success.

High-quality educational technology has the potential to enhance the learning experience of every learner, on an individual and systemic scale. However, without systemic actions to ensure all students have access to the digital infrastructure and skills needed to perform, the increased use of technology in everyday schooling will continue to grow the digital divide.

Often referred to as the Homework Gap, the **digital divide** is a consequence of some students not being able to access or complete schoolwork via the internet, and who continue to fall further and further behind.[iii]

This pandemic has increased the urgency to address these inequities, or risk this gap growing beyond repair.

Defining the digital divide in the era of COVID-19

COVID-19 forced school buildings to close their doors and immediately engage in some form of remote learning, which has continued as schools have reopened with large numbers of students choosing a remote learning option, rather than return to in-class instruction. The educational models used looked different for students depending on board, school, and individual needs. Schools that had funding and infrastructure in place for hybrid learning had a crucial tool to aid in the continuity of learning.

The ability of school boards and learners to benefit from hybrid learning was and is hinged on the digital divide. For the purposes of this paper, we consider foundational factors contributing to the Digital Divide in K-12 education to include:

1. Broadband internet access;

2. Access to internet-enabled devices;

3. Quality digital learning platforms; and

4. Functional technological skills of both parents/guardians and students.

The inequities inherent to this divide existed before COVID-19 but were made more glaring because of the crisis. According to the Canadian Radio-television and Telecommunications Commission (CRTC), nearly 86 per cent of households overall in Canada have access to adequate high-speed broadband Internet, but in rural areas only 40 per cent do. In First Nations communities, it's estimated that just 30 per cent of households have internet connections with the recommended speed.[iv] Without these tools, students will miss out on the opportunities for robust learning in a world where at least some learning must occur in the home.

This section details how the challenges of the digital divide manifest across different demographics.

BROADBAND INTERNET AND DEVICE ACCESS

Access to broadband is a factor of both infrastructure (whether the physical technology is in place to support broadband) and income (the capacity of individuals to afford the cost of an internet subscription). A student's likelihood to have access to broadband internet is directly correlated to their household's socioeconomic status and location.

According to the Public Interest Advocacy Centre, Canadians should spend no more than 4 per cent to 6 per cent of their household income on communications services.[v] However, the CRTC's Communications Monitoring report found that expenditures on broadcasting and telecommunications services represented 8.6 per cent of household income of the bottom income quintile of households, compared to only 1.7 per cent of the top quintile of household incomes.[vi]

The digital divide limits communities' abilities to provide the hybrid learning solutions necessitated by the COVID-19 pandemic. Small, rural, and under-resourced regions are facing struggles for critical digital infrastructure that are beyond their ability to alleviate alone. Broadband internet costs money, devices cost money, quality digital learning platforms cost money—funds that many school boards simply do not have.

It requires financial resources, time, and support to provide skills training to students and parents. Those resources are difficult to come by for school boards whose student populations are burdened by the digital divide. School boards and students did not create the digital divide, but they are the ones suffering the consequences as the pandemic response increasingly requires boards to shift away from reliance on physical infrastructure to deliver on their core mission of learning.

LOCATION

Where a student calls home, and if a student has a home, can hinder their ability to access the broadband necessary for online learning. Homeless and transient students' access to broadband is perpetually uncertain or unstable, leaving them especially vulnerable to lapses in communication and learning when schools are closed.

Many places, especially in rural areas, do not have the digital infrastructure necessary for internet. Research from the Canadian Internet Registration Authority (CIRA) shows significant differences in the Internet speeds of Canadians living in rural and urban Canadians. In April 2020, shortly after stay-at-home orders were announced, rural download speeds were nearly 12 times slower than those in urban centres.[vii] Rural Canadian upload speeds are also, on average, ten times slower than urban speeds—creating challenges for video conferencing, cloud storage, and online learning.[viii]

Whereas many Canadians living in urban centres have the option to upgrade their home Internet connections, Canadians in rural, remote, and northern areas are often served by satellite or wireless service providers that have been oversubscribed, thus decreasing quality as more users log on.

Distance creates challenges receiving services, meals, and educational materials. There are fears that because of the economic devastation of COVID-19 on rural areas and the lack of connectivity, some students will have access to a different quality of education than others. This has been apparent even in urban areas where some parents have come together to create controversial learning 'pods' with a few other families, in some cases even hiring teachers that may have otherwise been instructing in the formal school system. The privatization of this education has disproportionately benefitted students from higher socioeconomic backgrounds, exacerbating equity issues that existed pre-pandemic.[ix]

Critical private and public action has been taken to try to alleviate some of the access challenges defined by the digital divide. The Government of Canada has committed to increasing investment in rural broadband Internet to reach more underserved communities across the countries. In the meantime, however, telecommunications providers and public institutions have employed creative solutions to increase broadband access. Shaw Communications has been offering free unrestricted access to existing WiFi network hotspots to all, even if they were not customers.[x] The Grande Prairie Library, in partnership with TELUS and the Government of Canada, has offered mobile hotspots for loan to support the community.[xi] But many communities continue to struggle as the first semester of school nears completion, and further relief measures will be required as the pandemic wears on.

SOCIOECONOMIC STATUS

Socioeconomic status also plays a role for both broadband and device access. ACORN, a national organization of low- and moderate-income families, conducted a survey of its membership before the pandemic and learned that 20 per cent of low-income households (below $30,000 annually) had no home internet, with the majority identifying cost as the main reason. For those with home internet, 65 per cent said they had to sacrifice food or medication to afford it.[xii]

Under-resourced schools, with large low-income populations, exist in both urban and rural communities. The challenges of broadband and device access amongst low-income families means that there are fewer opportunities for hybrid learning and virtual engagement amongst educators, support workers, and students. This makes the threat of COVID-19 especially dire for low-income students, who are more likely to be identified as having special education needs and have lower standardized test scores. Further, the support these students receive at home may not be as robust. Parents and guardians who are low wage workers are far less likely to be able to work from home—limiting the adult support available to learners.

Special populations—equity considerations beyond broadband and devices

Equity can only be achieved by drawing special attention to, and addressing, the needs of populations whose challenges are the greatest. COVID-19 poses a special risk to certain students and communities—based on the digital infrastructure available and their individual needs. The Digital Divide's impact on student learning opportunities is correlated to socioeconomic status, location, and their race or ethnicity largely because of broadband and device access limitations.

We know that every student having broadband, a device and proper skills training is foundational to closing the digital divide. But it is important to note, that alleviating these pressures alone will not fully address the access challenges and equity concerns some students face. Individual student needs are complex—and must be supported by highly trained teachers, quality program design, and programming that is accessible.

Students with special needs and English Language Learners are particularly vulnerable to the educational consequences of the pandemic. These students are underdiscussed in conversations about educational inequities arising during COVID-19. Here, we look at these two populations whose educational future is most at risk due to the educational shifts after COVID-19.

D2L
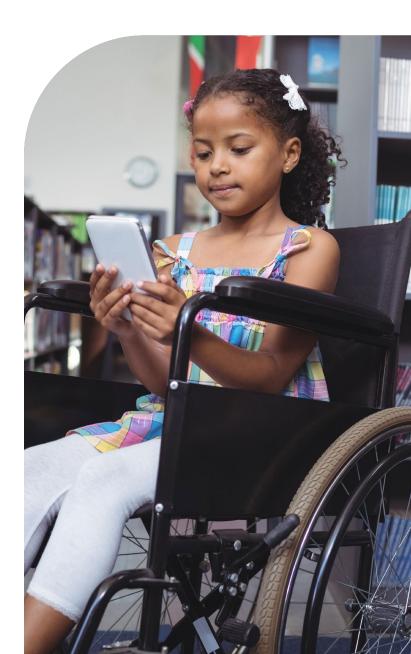DESIRE2LEARN

SPECIAL EDUCATION

With school buildings closed, physical distancing measures in place and hybrid learning models growing in importance — COVID-19 has placed much of the burden of educating all students on parents and caregivers. This leap is of special concern for students with disabilities, who may require expert evaluation and services as part of their learning needs. COVID-19 interrupted the special education services many students require to fully participate in learning. Schools that can provide educational opportunities to general population students, are required to ensure that children with special needs have access to the same opportunities to the greatest extent possible. The foundation of these services is accessibility, meeting of student individual educational needs, and the principle that students should be able to participate and learn alongside their peers to the greatest extent possible. Special education covers not only students' cognitive needs, but also mental and physical concerns that influence their ability to learn and grow, such as vision or healing challenges.

Schools, educators, and leadership have worked quickly to fulfill the students' individual needs noted in Individualized Education Plans (IEPs) without the infrastructure, specialized services, and experts typically available to students in school buildings. Ensuring that resiliency plans, including the technology for student learning, are accessible and allow for the necessary evaluation of students for the current school year is critical.

ENGLISH LANGUAGE LEARNERS

Under normal conditions, students who are non-native English speakers have a difficult school experience learning a new language while also receiving instruction in that second language for other subjects. Experiencing these conditions in a remote learning environment, with limited peer-to-peer language engagement, is a serious hindrance to their academic growth.

Further, non-English speaking parents may have limited capabilities understanding and guiding their children using technology or coursework because of language barriers.

D2L
DESIRE2LEARN

Conclusion and recommendations

Educational equity can only be achieved through recognizing and addressing inequality and inequity.

What we risk now by not affirmatively addressing the needs of populations who have been traditionally underserved regarding technology is not just perpetuating these inequities, but significantly growing the learning gaps between these students and their non-impacted peers as they remain disconnected from learning.

The goal should not be to keep all children at a minimum standard during this pandemic, but to enable communities, boards, educators, parents, and students with all that they need to enhance and support education.

The resilient education systems demanded by COVID-19 offer us the opportunity and obligation to address the many inequities present in our existing learning infrastructure. To support the development of equitable learning opportunities for students during COVID-19, we recommend:

1. Prioritize equity in the development of all resilient learning initiatives:
Populations who are known to be especially impacted by the Digital Divide should be prioritized in financial and resource planning—including specialized services for Indigenous communities with limited Internet access, rural and northern residents, and children with special needs.

Policy decisions should be taken with an equity lens—considering who benefits and is excluded from certain actions. This includes consideration of race, geography, income, gender identity, faith, first language, sexual orientation, and disability—among other elements. Whichever framework is selected, it is important for decision-makers to track the impact of actions on especially vulnerable populations to monitor how their actions are contributing to or alleviating inequity.

2. Accelerated provincial, territorial, and federal action must be taken to close the Digital Divide:
The Digital Divide is a systemic problem—reflecting legacies of discrimination and oppression across race, language, location, and socioeconomic status. It is beyond the capacity of school boards and communities to remove these barriers on their own. Only through accelerated provincial, territorial, and federal investment aimed at increasing broadband and device access in those communities who most need it, can the Digital Divide be closed.

3. Singular systemwide platform—one "Digital Door" through which all students can access learning and services outside of school:
By supporting a singular access point, with a fully responsive design, school boards will drive equity through standardizing the quality of learning and broadening access to as many students as possible. Boards should be providing devices, but where that's not possible, a web-based platform providing a single point of access to learning will enable students to use any device that maybe available to them.

Contributors

Mike Semansky
Senior Strategy and Public Affairs Director, Canada
mike.semansky@D2L.com

Nia Brown
Senior Manager, External Relations
nia.brown@D2L.com

Malika Asthana
Strategy and Public Affairs Manager
malika.asthana@D2L.com

About D2L

D2L develops software that makes the learning experience better. Our cloud-based platform—Brightspace—is the leading learning management system (LMS) for blended and fully virtual learning. It's easy to use, flexible, and smart. With Brightspace, schools can personalize the learning experience for every learner to deliver real results. Brightspace is used by learners in K-12, higher education, and the corporate sector, including the Fortune 1000.

Learn more about D2L for schools, higher education, and businesses at **D2L.com**.

D2L
DESIRE2LEARN

ENDNOTES

i   Mein, Stephen A. "COVID-19 and Health Disparities: the Reality of "the Great Equalizer"." Journal of general internal medicine, 1–2. 14 May. 2020, doi:10.1007/s11606-020-05880-5,; Jones, Bethany L, and Jones, Jonathan S., "Gov. Cuomo Is Wrong, Covid-19 Is Anything but an Equalizer." Washington Post, 5 Apr. 2020 https://www.washingtonpost.com/outlook/2020/04/05/gov-cuomo-is-wrong-covid-19-is-anything-an-equalizer/

ii   Moore, R., Vitale, D., & Stawinoga, N. (2018). The Digital Divide and Educational Equity. ACT Centre for Equity in Learning. Retrieved from https://www.act.org/content/dam/act/unsecured/documents/R1698-digital-divide-2018-08.pdf

iii   Anderson, M. & Perrin, A. (2018). Nearly One-in-five Teens can't always finish their homework because of the digital divide. Pew Research Centre. Retrieved from https://www.pewresearch.org/fact-tank/2018/10/26/nearly-one-in-five-teens-cant-always-finish-their-homework-because-of-the-digital-divide/

iv   CRTC. (2020). Broadband Fund: Closing the digital divide in Canada. Canadian Radio-television and Telecommunications Commission. Retrieved from https://crtc.gc.ca/eng/internet/internet.htm

v   PIAC. (2016). No Consumer Left Behind Part II: Is there a communications affordability problem in Canada? Public Interest Advocacy Centre. Retrieved from https://www.piac.ca/our-specialities/affordability-of-communications-services-for-low-income-canadians-risks-increasing-digital-divide/

vi   CRTC. (2018). Communications Monitoring Report 2018. Canadian Radio-television and Telecommunications Commission. Retrieved from https://crtc.gc.ca/pubs/cmr2018-en.pdf

vii   CIRA. (2020). New internet performance data shows the staggering scale of Canada's urban-rural digital divide. Canadian Internet Registration Authority. Retrieved from https://www.cira.ca/newsroom/new-internet-performance-data-shows-staggering-scale-canadas-urban-rural-digital-divide?fbclid=IwAR1tVBk5MUOb4GstPeRWmSlpcrEXxKMGZTZuHdzVWlFtNGuOYfTUS5qcCDw

viii   *Ibid*

ix   Yang, J. & Kennedy, B. (2020). As wealthy parents turn to learning pods and private schools, low-income families face a stark choice about their kids' education. Toronto Star. Retrieved from https://www.thestar.com/news/gta/2020/09/12/as-some-parents-turn-to-learning-pods-or-private-schools-low-income-families-face-a-stark-choice-about-their-kids-education.html

x   Bench, A. (2020). Shaw opens up 'Go WiFi' hotspots to Canadians for free during COVID-19 outbreak. Global News. Retrieved from https://globalnews.ca/news/6680500/shaw-covid-19-wifi-opens-up-free/

xi   Reynolds, K. (2020). Mobile hotspots now available for borrow at Grande Prairie Library. Daily Herald Tribune. Retrieved from https://www.dailyheraldtribune.com/news/local-news/mobile-hotspots-now-available-for-borrow-at-grande-prairie-public-library

xii   ACORN. (2020). Internet is a lifeline during this pandemic but many low-income Canadians can't afford it. ACORN Canada. Retrieved from https://acorncanada.org/take-action/internet-lifeline-during-pandemic