"Like many teacher librarians, we had grown accustomed to being asked—especially by those who work outside of schools—'digital what?'"

On Systemic Digital Equity, Systemic Inclusion, and the Teacher Librarian in the Pandemic Era, Part 1

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The writing of this two-part series began at the end of the year before COVID-19. The intent was to explain the magnitude and importance of the "homework gap"—the lack of equitable student access at home to broadband, a computer and home access, as well as tech support, librarian support, and well-curated hidden web learning resources. But, after COVID-19 took hold and schools were forced to close and move to remote, online learning, the magnitude of the problem became apparent. Now the focus shifts to solutions.

UNDERSTANDING DIGITAL DIVIDE

As individuals who have toiled for many years in the vineyards of the digital divide, we found that many efforts were being made to moving toward digital equity. The challenge, however, was that most of the efforts were siloed, with few instances of sharing knowledge and collaboration between organizations. To address this need, the National Collaborative for Digital Equity was established to help educational associations, technology companies, state educational agencies, city governments, and others work together to address systemic digital equity.

Like many teacher librarians, we had grown accustomed to being asked—especially by those who work outside of schools—"digital what?" Many consider the digital divide simply the lack of access to a device and connectivity. This definition, however, is too narrow (Gorski, 2009), and a more accurate view is when access to digital technologies and resources differs based on a group's race, socioeconomic status, or national identity. Access to a device and connectivity represent the first-level divide, but the second level is related to digital skill, usage patterns, and production (Selwyn, Gorard, & Furlong, 2006). Third-level divides include disparities in the benefits and use of information and communication technologies (ICTs) and the internet. For example, research demonstrates that those with the highest education levels are able to derive greater benefits from ICTs and the internet than those with low levels of education (Van Deursen & Helsper, 2015). Each of these divides contributes to the digital exclusion of a group, and efforts to achieve digital inclusion by these groups represent a more complex problem than simply access to "boxes and wires."

We knew there was widespread

unfamiliarity among taxpayers, school boards, state and federal education policy makers, and even many in education philanthropy, about the extent of the digital divide for low-income and rurally isolated students and its impact on their learning opportunities. It was clear the reality needed illuminating. We also knew, for most, the digital divide was viewed as inequitable access to broadband, devices, apps, software for productivity and learning, and tech support and professional development for teachers to equip students with the skills they need to use such learning tools safely and effectively. However, almost no one outside of school librarians understood that equitable access to librarians' expertise is also essential.

Generally, before COVID-19, few

Digital divide exists when a group's access to digital technologies and resources differs based on a group's race, socioeconomic status, or national identity —Mclaughlin & Resta.

non-educators knew the scale and profound impact of the digital divide on learning opportunities and results. Where there *was* awareness and concern, it focused almost exclusively on student access to broadband and devices, and typically on equitable access *at school*, and not as much on what FCC commissioner Jessica Rosenworcel (2020) helpfully termed the "homework gap."

Over the past decade, the nation made great strides in improving equitable access at school to technology essentials for learning in the digital era. Federal programs such as the Universal Service Program for Schools and Libraries (aka "e-rate" program), the U.S. Department of Education's Enhancing Education Through Technology program, and increased state and local spending succeeded in bringing broadband to nearly all K–12 classrooms. In 2016, the State Education
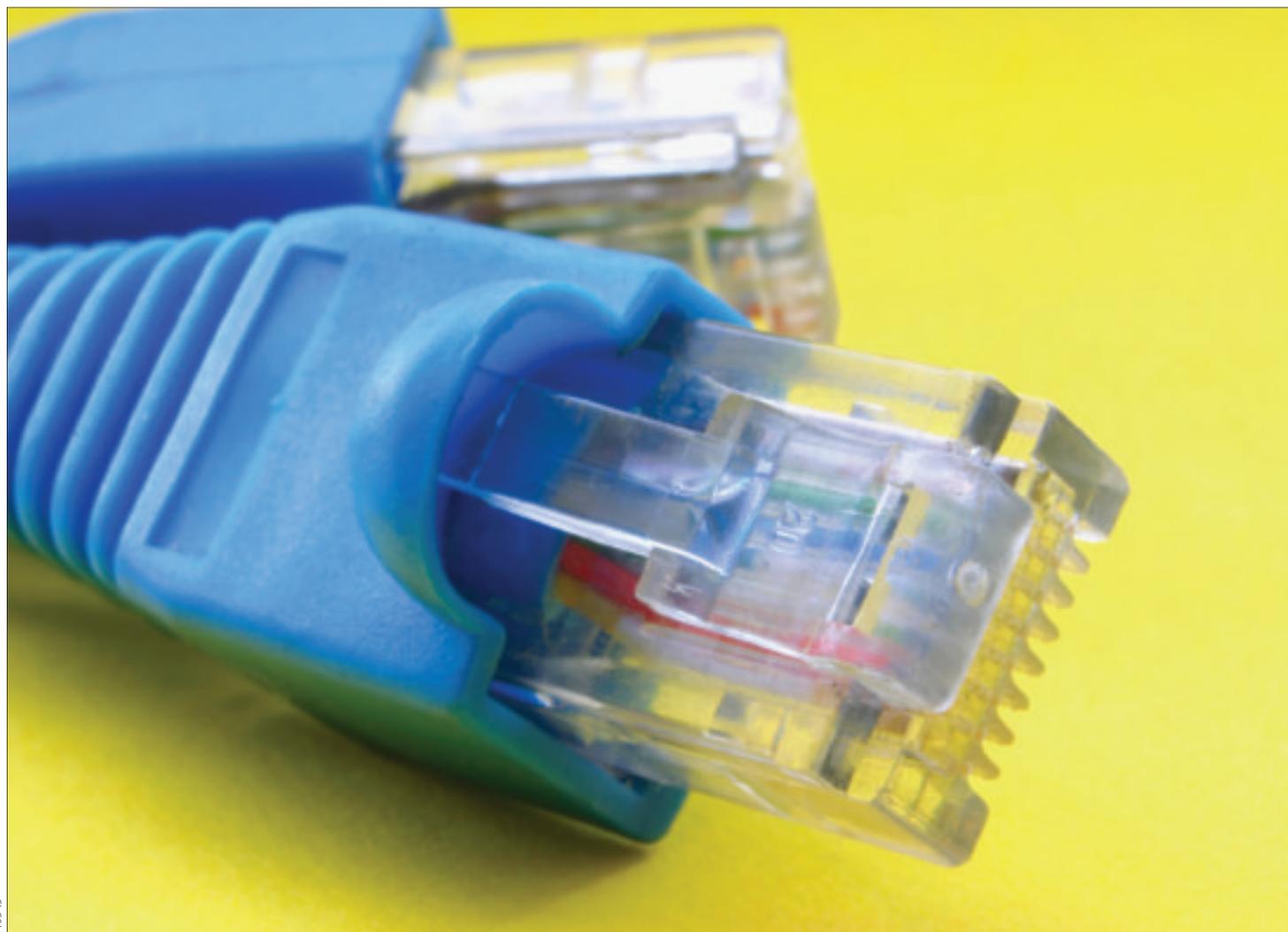
Technology Directors Association (SETDA) released *The Broadband Imperative II: Equitable Access for Learning* (Fox & Jones, 2016), which acknowledged such gains and underscored the greater need for policy attention and funding for equitable home access to broadband, but noted that even school access would be increasingly problematic for the future, unless and until schools provided access at such speed and scale as to support increasingly data-intensive instructional broadband purposes as streaming video and videoconferencing. SETDA forecasted that schools would need to deliver broadband at generally higher speeds and to many more simultaneous users across the school community, as learning became increasingly digital. But SETDA, the nation's premier national network of state education technology leaders, emphasized for the first time that Rosenworcel's "homework" had to be addressed, too.

Currently, millions of teens can't finish their homework for lack of access to digital resources (Wong, 2018). For example, a Hispanic Heritage survey reported that "50% of Hispanic students were most likely to not complete an assignment due to lack of access" and, overall, "42% of students say they received a lower grade on an assignment because they didn't have access to the internet (Mclaughlin, 2016, n.p.).

In addition, the homework gap can have major consequences, such as the "challenge to complete homework in safe, predictable, and productive environments can have lifelong impacts on their ability to achieve their full potential" (Branam, 2017, n.p.).

THE SCHOOL LIBRARIAN FACTOR

As longtime digital equity advocates, we agree with Branam (2017). But with the onslaught of COVID-19, we underscore the need to awaken school administrators, teacher educators, and policy makers to what school librarians have long understood: successful *educational* use of broadband and computers for learning opportunities, engagement, and results *also* requires equitable access to tech support, hidden web resources (i.e., access to not just that which is Googleable), and librarians skilled in helping students and educators locate and use these learning resources safely and effectively.

What teacher librarians already understood, and other stakeholders need to recognize, is that students need not only digital literacy but also media literacy and cybersafety skills. Equally,

given the competition among social network, smartphone, and other device engineers to make their network or device as addictive as possible, students and their educators and caregivers need skill in anticipating and minimizing social network and device addiction. As evidence suggests, technology addiction may impair students' ability to become effective lifelong learners. Felt and Robb (2016) found that "Internet addiction is potentially serious and needs clarification and additional study . . . to understand the impact on children's physical, cognitive, social and emotional development" and that "our digital lifestyles, which include frequent multitasking, may be harming our ability to remain focused" (p. 6).

So we were excited about the opportunity to contend in these pages that (1) digital equity needs to be regarded as *systemic digital equity* (i.e., entailing equitable learner access to broadband and computers, but also to tech support, hidden web digital learning resources, and librarians prepared to assist learners to develop essential digital and media literacy, cybersafety, and technology addiction mitigation skills); (2) the homework gap must be eliminated because, even in pre-pandemic days, affordable home access to broadband and a computer were essential resources too often unavailable to low-income students; (3) more funding was becoming available to address the homework gap; and (4) concerted steps were needed to ensure that such funding fosters equitable home access to all dimensions of systemic digital equity, not just the obvious ones of broadband and computer access.

As school systems and other educational institutions closed down and went to online learning, lack of student home access to broadband—and not just smartphones but computers (i.e., devices with keyboards)—has become almost universally recognized as suddenly and completely unacceptable.

CLARITY AND CHALLENGES DUE TO COVID

But as we wrote this article during the COVID-19 pandemic, we rarely hear "What's the digital divide?" or "Why does it matter?" As school systems and other educational institutions closed down and went to online learning, lack of student home access to broadband, and not just smartphones but computers (i.e., devices with keyboards), has become almost universally recognized as suddenly and completely unacceptable.

Additional good news in the CO-VID-19 era is that nearly everyone understands that more funding must be provided to ensure home access for all learners to broadband and computers. With the looming uncertainty of whether, when, and to what extent schools and colleges can "reopen" and remain open, it is likely that millions of students and educators will need to learn and teach online on some regular basis. This is "good news" to the extent it reflects that without widespread recognition of a problem of digital equity, it is impossible to address it.

As an outcome of the COVID pandemic, four digital divide challenges loom larger than ever:

1. State and local tax revenues are down dramatically, calling into question the capacity and political will of policy makers to offset these declines to ensure that schools are properly funded and staffed. There was already concern that many school leaders, school boards, and other policy makers did not appreciate the validated educational dividends of investing in school libraries and librarians. Competition for scarce school funds will likely worsen this challenge, especially as school reopenings will require social distancing, lower teacher–student ratios, 1:1 device access, and purchase of personal protective equipment, cleaning supplies, etc.

2. Congress and a growing number of state legislatures have allocated emergency "COVID funds" for 1:1 device purchase and "band-aid" solutions to broadband access by, for example, temporarily subsidizing mobile hot spot devices and broadband data plans. These measures could give the illusion of more than temporarily solving home broadband and computer access problems while leaving fewer funds available for equitable access to remote tech support, hidden web instructional resources, and—needed now more than ever—guidance for learners and educators by school librarians.

As the 2020–2021 school year begins, school librarians have become and will remain the profession of the hour, as many districts move to purely online and hybrid learning and equip learners and their families and teachers with the skills they need for life in the Digital Age.

3. School systems, especially those in low- and moderate-income (LMI) communities, need to strengthen their capacity to recognize and address systemically all these essential dimensions of the digital divide.

4. As is widely recognized, the capacity of educators and caregivers to help students become successful online learners varies tremendously. The uneven quality of online pedagogy and learner support is nearly as problematic as inequitable student home access to broadband and their own computer. Poverty intensifies and complicates every aspect of these challenges. Lower-income parents are more likely to have to work in high-risk, poorly paid positions with few or no medical benefits and to work one or more jobs, leaving them with little time and energy to effectively supervise and support their children's remote learning (Santhanam, 2020). Equally, lower-income parents often have less access, experience, and skill in use of e-learning tools; lower educational attainment levels; and less confidence helping their child become an effective remote learner (Santhanam, 2020). These dynamics make it especially vital that educators in LMI communities possess solid skills in online pedagogy and/or timely effective support to ensure they develop such skills.

ENCOURAGING NEWS

Throughout the remainder of this article and in Part II, forthcoming in the next issue of *Teacher Librarian*, we turn to the *encouraging* news. We hope it will be heartening and, because there is much we each can do individually and together, that many will join in rapidly evolving efforts to develop national and statewide networks of local partnerships, especially in LMI communities, to design and carry out systemic digital equity initiatives.

We, the authors, cofounded the nonprofit National Collaborative for Digital Equity (NCDE, www.digitalequity.us) to mobilize sustained efforts to remove digital divide barriers to educational and economic opportunity. Our first focus was to persuade federal policy makers to allow federally insured banks the opportunity to receive credit toward meeting their federal Community Reinvestment Act (CRA) requirement by investing in digital equity in LMI communities. In 1977, Congress passed the CRA statute that requires that banks, as a condition for maintaining their eligibility for FDIC depositor insurance, make substantial investments for economic opportunity

in LMI communities (Office of the Comptroller of the Currency, 2020.) Since passage, banks have spent over $100 billion per year, or over $3 trillion, in CRA compliance funds for such purposes as affordable housing, financial literacy education, getting unbanked families free checking accounts ("financial inclusion"), and strengthening pathways for LMI learners of all ages into living wage employment ("economic inclusion") (Hunt, 2018).

Through pilot efforts and policy advocacy NCDE's cofounders undertook during 2013–2015, we persuaded federal policy makers that digital equity should be added as an allowable new purpose for which banks could receive CRA credit. Our reasoning was simple: without digital access and skill, it has become increasingly difficult for LMI learners to find out about, apply, prepare, and qualify for living wage jobs. Even many *non*–living wage jobs are advertised only online and require online applications and some measure of computer and digital literacy. In summer 2015 we learned that federal CRA policy makers agreed and would publish guidance to this effect the next year as outlined, for example, by Barton (2016), in *Closing the Digital Divide: A Framework for Meeting CRA Obligations*.

At that point, we pivoted to form NCDE and mobilize national leaders in education to alert them to this coming policy shift and the emergence of, we hoped, eventually substantial, sustained funding for systemic digital equity. From the start, we maintained that bank CRA investment executives, community leaders, school system leaders, and other partners needed to address equitable access for LMI learners. As lifelong professional educators

with decades of experience conceiving and leading technology integration efforts, we know from hard-won experience that simplistic efforts that equip learners and educators with only broadband and devices, or only digital learning resources, are insufficient.

Our aim has been to persuade the banking profession to voluntarily commit eventually up to 1% of their CRA funds for digital equity in support of educational and economic opportunity, as this would result in $4.8 billion each year. To achieve this, we realized, we needed to proceed incrementally, employing evidence-based approaches to the digital divide wherever possible.

From the start, as we sought to spur an era of increasingly substantial bank CRA investment in digital equity, we wanted to promote investments *only* in *systemic* digital equity. Equally, as we will explore more deeply in Part II of this article in the next issue of *Teacher Librarian*, we believed it was essential to advocate for digital equity not for its own sake but because of the increasingly crucial role that digital inclusion plays in educational and economic opportunity. Indeed, we hold that eliminating the digital divide becomes truly meaningful only when it is in direct support of and contributes materially to enabling LMI learners who grow up in intergenerational poverty to escape poverty's brutal gravitational pull. In Part II we will explore "systemic inclusion"—financial, economic, educational, and digital. We are mobilizing statewide networks of sustained local partnerships in LMI communities that bring together diverse local leaders in education, workforce development, banking, and philanthropy to tap initially modest but steadily growing bank CRA funding to support efforts to remove digital divide obstacles to financial inclusion and literacy, economic inclusion, and educational opportunities.

In every local, state, and national initiative we undertake, we involve school librarians and underscore to funders and other stakeholders the essential role they can and must play in ensuring that LMI learners and their families and educators discover and learn to safely and effectively use essential learning resources, especially for their educational and economic aspirations.

In partnership with banking, regulatory, workforce development, educational system, and philanthropic leaders, we developed a model statewide strategy in New Hampshire. This entails growing a statewide network of local VISTA partnerships that equip LMI youths with the skills and tools for their financial, economic, educational, and digital inclusion. This work is overseen by the recently formed NH Council on Systemic Inclusion, whose members advise on development of these local systemic inclusion partnerships, plan an annual (virtual) state summit to share and spur action planning for further systemic inclusion efforts, and create the nation's first state BankOn coalition (http://www.digitalequity.us/vista.html) to foster not only financial inclusion but also, more broadly, systemic inclusion for eventually all of the state's LMI learners and their families.

In collaboration with SETDA, the National School Boards Association, and other partners, we are now planning a national series of virtual state summits to work with kindred spirits in states that, from coast to coast, seek to spur sustained CRA, philanthropic and educational system action planning, and investment for systemic inclusion impact.

As the 2020–2021 school year begins, school librarians have become and will remain the profession of the hour, as many districts move to purely online and hybrid learning and equip learners and their families and teachers with the skills they need for life in the Digital Age. Just as European cities found themselves in rubble, having to rebuild in the wake of World War II, our schools and communities are beginning to find themselves in profound pandemic-induced economic and educational disarray, needing our own Marshall Plan.

We need a proactive, shared, galvanizing strategic vision for rebuilding—and rethinking—our economies and educational systems and practices. There is no question that school librarians' expertise and resources will be essential in conceiving and making real a sane, affirming, and just way forward.

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Dr. Robert McLaughlin, cofounder and executive director of the National Collaborative for Digital Equity, conceived the effort to persuade federal policy makers to give federally insured banks credit toward meeting their Community Reinvestment Act requirement to invest in economic opportunity in low- and moderate-income communities. He brings to this work several decades of experience in education as a K–8 teacher, principal, and education dean. He also has experience in STEM educational reform, educational policy analysis and innovation, and designing and leading large-scale technical assistance initiatives. He also led a nine-state consortium of state and local educational leaders undertaking STEW educational reform and educational technology integration at school and preparation program levels.

Dr. Paul E. Resta is cofounder and president of the National Collaborative for Digital Equity. He also holds the Ruth Knight Milliken Centennial Professorship of Learning Technology at the University of Texas at Austin. His current work focuses on digital equity and the research and development of web-based learning environments, computer-supported collaborative learning strategies and tools, and online teacher professional development. He served as president of the International Council of Computers in Education and is the founding president of the International Society for Technology in Education, the world's largest educational technology association. He recently served for 8 years as president of the International Jury for the United Nations Educational, Scientific and Cultural Organization (UNESCO) King Hamad Bin Isa Al-Khalifa Prize for the Use of Information and Communication Technologies in Education.