

The New Digital Divide

Ensure all students have equitable access
to quality digital literacy instruction.



A Gap Emerges

In the mid-90s, as personal computer and internet access was becoming more available to many in the U.S., a correlation could be observed between access to technology and socioeconomic status. Scholars, policy makers, and advocacy groups referred to this as the “digital divide”¹ and many school districts began investing in both broadband internet and classroom technology to combat this issue.

Today, more than 99% of K-12 public schools in the U.S. are connected to the internet, in large part thanks to the Federal Communications Commission’s congressionally mandated “E-Rate” program, which went into effect in 1998.²

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School districts continue to spend billions each year on hardware, broadband, maintenance, and other instructional technology software. During the 2015-16 school year alone, 46% of districts increased their spending on hardware which included tablets, laptops, and desktop computers.³

More than Access

Though broadband use and school hardware availability are at an all-time high, a new digital divide has appeared. Today’s students carry cell phones in their pockets that are more powerful than the NASA command center that landed men on the moon in 1969, but many still do not have the basic technology skills they need for success in school and in life.

This skills gap is apparent in the recent analysis of scores earned by students on online versus paper and pencil versions of assessments developed by Partnership for Assessment of Readiness for College and Careers (PARCC) and Smarter Balanced Assessment Consortium (SBAC).



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For example, students who took the 2014-15 PARCC exam on a computer tended to score lower than those who took the same test using paper and pencil.⁴ In 2016, a district in Arizona did a study among their students that showed those with strong digital literacy skills scored higher than those with marginal or low digital literacy skills on their state’s online assessment.⁵ This suggests that lower online test scores can be linked to insufficient digital literacy skills.

If students don’t develop a strong foundation of digital literacy starting in elementary school, the digital divide will only widen as they continue in school. If students enter high school or college without proper digital literacy skills, they will not be able to meet the expectations of their classes, including the use of word processing and spreadsheet programs, or effectively conducting research to identify credible online sources.

The impact of this technology skills gap is also significant for individuals entering the workforce. By 2020, it is estimated that nearly 80% of jobs will require some level of technology proficiency. Productivity lost due to low technology skills is estimated to cost the U.S. economy \$1.3 trillion each year.⁶ Additionally, time wasted as a result of inadequate digital skills is estimated to consume 21% of a worker’s time, costing businesses roughly \$10,000 per employee per year.⁷

Obstacles to Preparing Students

Two barriers to providing students with quality digital literacy instruction are inadequate teacher training and the lack of a standardized curriculum at most schools. Core area teachers take many college classes on their chosen subject and are typically provided with a district-approved curriculum. On the other hand, many teachers across the U.S. are expected to teach students technology skills, but do not receive specific training on how to teach these skills and are not provided with any sort of curriculum to follow.

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When this happens, teachers are essentially required to create their own curriculum by sifting through thousands of online resources. Vetting the quality and grade-appropriateness of these items and creating lessons from scratch can be difficult and time-consuming. As a result, students may encounter uneven quality of instruction from classroom to classroom and school to school.



About Learning.com

Founded in 1999, Learning.com serves 6.7 million students each year in more than 20 countries. Our complete digital literacy curriculum for grades K-8 provides grade-appropriate lessons with embedded instruction to engage students as they develop critical digital literacy skills such as keyboarding, online safety, coding, and more. We make it easy for teachers to equip their students to succeed on online assessment, in college, and their future careers.

¹<http://www.internetworldstats.com/links10.htm>

²<https://www.theatlantic.com/education/archive/2015/03/the-schools-where-kids-cant-go-online/387589/>

³<https://thejournal.com/Articles/2016/01/19/Report-Education-Tech-Spending-on-the-Rise.aspx?Page=1>

⁴<http://www.edweek.org/ew/articles/2016/02/03/parcc-scores-lower-on-computer.html>

⁵http://info.learning.com/hubfs/Articles/AZMerit_Flagstaff_OnePageStudy_Jan17.pdf

⁶<http://businessdegrees.uab.edu/resources/infographics/the-it-skills-gap/>

⁷International Data Corporation (IDC) "Bridging the information worker productivity gap: New challenges and opportunities for IT"