



Connected Learning: A Primer for State Policymakers

Fourth of four reports



Promoting Digital Literacy Among Students and Educators

BY SUNNY DEYE

Students today are expected to learn and apply skills that differ greatly from those for previous generations, including flexible communication and collaboration, digital literacy, critical thinking and problem-solving.

In the 2011 book, *A New Culture of Learning*, Douglas Thomas and John Seely Brown describe the kind of learning necessary in this new environment as “whitewater learning”—the ability to acquire useful knowledge and skills while at the same time practicing them in an environment that is constantly evolving and presenting new challenges. This kind of knowledge is often put to use while it is being learned.

Digital technology is becoming an increasingly critical tool in providing students and educators with a personalized learning experience that takes advantage of resources and opportunities both inside and outside the school building. Digital technology and media provide new opportunities for students and educators to pursue their interests and find educational resources, experiences and courses any time and any place, including schools, libraries, museums and community centers. As these organizations invest in 21st century technology upgrades, they must ensure that students and educators have a set of “digital age literacies” that enable them not only to take full advantage of online learning opportunities, but also to understand and respond appropriately to the risks they may encounter on the Internet.

Policy Considerations – Digital Age Literacies

Researchers have identified critical components of digital, media and social-emotional literacy—known as digital age literacies—that can help keep young people safe online while allowing them to take full advantage of the tools of the networked world. The 2014 report of the Aspen Institute Task Force on Learning and the Internet, *Learner at the Center of a Networked World*, recommends that states and districts adopt policies to ensure that the following digital age literacies are taught as basic skills in schools.

- Media literacy refers to the ability to understand, interpret and use different forms of media: books, hypertext, videos, podcasts and more. Media literacy requires users to understand how to search, produce and use online information, including understanding the intricacies of intellectual property.

- Digital literacy refers to fluency in the use and security of interactive digital tools and searchable networks. This literacy includes the ability to use these tools safely and effectively for learning, collaborating and producing. It also protects against network-based crime such as phishing and malicious hacking.
- Social-emotional literacy, as defined by the Collaborative for Academic, Social, and Emotional Learning (CASEL), refers to the ability to understand and manage emotions, set and achieve positive goals, feel and show empathy for others, and make responsible decisions.

Educators also need to be competent in digital age literacies in order to help their students take advantage of the new tools. State policy-makers are acting to address digital age literacies for students and educators, recognizing that a variety of digital skills and competencies are now basic to classroom performance, workforce readiness and full participation in civic life.

State Policy Approaches

State legislatures are investing in programs and professional development to provide digital literacy skills for students and educators. A handful of states are modifying teacher training program requirements to include digital age literacies.

FLORIDA

- **HB 5101** (2014) requires public schools to provide K-12 students with opportunities for learning computer science, including computer coding and computer programming. It permits elementary and middle schools to establish digital classrooms to improve digital literacy and competency;



to learn digital skills, such as coding, multiple media presentation, and the manipulation of multiple digital graphic images; and to earn digital tool certificates and grade-appropriate, technology-related industry certifications. It requires the Department of Education to develop a five-year strategic plan for integrating technology in classrooms, with minimum requirements for professional learning opportunities that help educators identify the types of digital tools and resources they need to manage, assess and monitor student learning and performance.

LOUISIANA

- **SB 622 (2014)** requires the Department of Education to develop and implement a statewide technology plan for public elementary and secondary schools that provides training and ongoing professional development. It aims to ensure that teachers and other school staff have the skills necessary to effectively and efficiently use technology infrastructure, software, data management and online resources to enhance and improve student engagement and learning.

NORTH CAROLINA

- **HB 23** (2013) requires that students preparing to teach demonstrate competency in digital learning and its application before licensure, as well as for teaching license renewal. It also requires students in school administration programs to demonstrate competency in digital learning and in supporting teachers and staff in using digital instruction technology, and requires the State Board of Education to develop digital teaching and learning standards for school staff.

MINNESOTA

- **SB 1528** (2012) requires postsecondary institutions—and any ongoing school staff development—to include in their programs the knowledge and skills teacher candidates need to deliver digital and blended learning and curriculum and engage students with technology.

MAINE

- **SP 161** (2011) requires the commissioner of education to develop a program of technical assistance for instruction in digital literacy, including offering professional development and training for educators in the effective use of online learning resources. The technical assistance must include a model for instruction that promotes digital literacy for students; a clearinghouse of information on using online learning resources, including best practices in using open educational resources and open-source textbooks; and professional development and training for educators in effectively using online learning resources.

Considerations for State Policymakers

The state policy examples discussed here address the development of digital age literacies so that educators and young people can effectively use the tools of the digital age to communicate, collaborate and behave ethically online. As learning becomes increasingly personalized, new digital-age tools—such as digital badges (described on page 5)—provide flexibility in acknowledging that learning occurs both in and out of school. Understanding how to navigate and use these tools will be increasingly important to prepare the 21st century learner for success in college, career and civic life.

State legislators are leading the movement to embrace technology as a powerful learning tool, both in and out of school. Learning institutions—such as schools, libraries, museums and community centers— are finding new ways to increase opportunities to engage the 21st century learner. Other briefs in this series explore how state legislatures are adjusting policies to harness the power of technology in the classroom, expand broadband access and protect student privacy.

Recommended Resources

Learner at the Center of a Networked World is the 2014 report of the Aspen Institute Task Force on Learning and the Internet.

The Connected Learning Alliance is a network of organizations, projects and individuals working to make learning relevant by integrating personal interests, peer relationships and the tools of the digital age.

Common Sense Media works with policymakers, industry leaders, parents and teachers to improve the media and technology landscape for all kids, families and schools.

A New Tool: Digital Badges

Digital badges are a rapidly growing, universal system of credentialing learning that allows users to earn a visual, meaningful acknowledgement of their specialized skills and interests. Digital badges are much like an online version of the iron-on badges earned in scout troops. They serve as proof of a skill learned. Once earned, badges can be listed on a student's resume or social media profiles and would link to a list of what qualified the student for the badge and to portfolio samples that illustrate the skill. Digital badges provide:

- **In-depth information.** Badges built on a secure, open-standard platform can safely store layers of information about the learner. A few clicks can reveal where the learning took place, which skills were achieved, examples of creative work and more.
- **New learning pathways.** In the Cities of Learning (described below), one badge leads to another. Each time young people earn a badge, they are linked to additional learning opportunities and invited to “level-up” to broaden or deepen skills. In this way, badges can help young people create cross-institution pathways for learning that propel them toward college, a career or involvement in their community.
- **A more level playing field.** Spending on out-of-school enrichment for children has tripled over the last two decades, and affluent households provide rich learning opportunities through digital media in the home. Youth without such resources often miss out. Badges level the playing field by highlighting opportunities where any young person can pursue an interest, either online or in the community; by helping create pathways for deepening knowledge and skills; and by connecting youth to encouraging peers and mentors who can help make their dreams come true.



Digital Badges in Action: Cities of Learning

Chicago's 2013 Summer of Learning program used the digital badge system to keep track of summer-time learning. Working with the Digital Youth Network, the Chicago Summer of Learning coordinated with a variety of community organizations, from the public library to small dance studios, to set up badges covering everything from sculpture to video production. The first Chicago Summer of Learning networked more than 100 organizations, helping more than 100,000 students gain access to new learning opportunities and earn digital badges.

In 2014, the Chicago Summer of Learning concept was expanded to Dallas, Los Angeles, Pittsburgh and the District of Columbia and became what is now known as the Cities of Learning summer program. Most Cities of Learning programs issue digital badges that young people can use to create their own learning pathways across institutions and online, following their interests and acquiring skills and knowledge along the way.

- For more information about Cities of Learning, visit www.citiesoflearning.org.
- For more information about digital badges, visit www.reconnectlearning.org.

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