Navigating the Digital Shift II
Implementing Digital Instructional Materials for Learning

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EXECUTIVE SUMMARY

SETDA expands upon the 2015 Navigating the Digital Shift report with a focus on living and learning in the digital age. In this second publication, stakeholders will learn about states' guidance and policies around the implementation of digital instructional materials as well as best practices. SETDA highlights several next steps for consideration as education leaders continue to advance living and learning in the digital age.

- **State Leadership:** State leadership is essential for developing a shared vision and empowering leaders to ensure students have access to personalized, engaging learning experiences supported by digital instructional materials and resources to best prepare them for college and careers. Leadership and guidance from states is critical so that district policies and practices support digital learning opportunities.

- **Accessibility for All Students:** Providing accessibility for all students must be a consideration when acquiring, developing, and implementing digital instructional materials. State and local educators should take advantage of the technical assistance available at the Accessible Educational Materials Center to ensure that accessibility is included in material and technology procurement and acquisition systems.

- **Equity of Access:** Access to the devices and consistent high-speed broadband access is essential for digital instructional materials implementation. Multiple states provide guidance to districts to support out of school access to ensure anytime/anywhere learning.

- **State Acquisition Policies:** States and districts should continue to work to make the procurement process more transparent and to provide guidelines to publishers interested in selling digital instructional materials in the state, including required accessibility features.

To access the full report please visit:
 http://www.setda.org/priorities/digital-content/navigating-the-digital-shiftii_2017/

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Overview

INSTRUCTIONAL MATERIALS IMPACT ON LEARNING

Effective selection of instructional materials supports personalized learning and these materials can have as large an impact as teacher quality on student outcomes. According to the Choosing Blindly: Instructional Materials, Teacher Effectiveness and the Common Core publication from the Brown Center on Education Policy at Brookings, "there is strong evidence that the choice of instructional materials has large effects on student learning—effects that rival in size those that are associated with differences in teacher effectiveness." The report argues that making better choices in selecting instructional materials is relatively easy and inexpensive. Because of this, it is important to help provide guidance to state, district, and school level leaders in the selection of quality instructional materials that are aligned to standards, address education goals and are accessible for all students. Often digital materials provide more flexibility to personalize and best meet the needs of all students. It is equally important to provide guidance to companies who develop digital instructional materials to ensure that these materials are high-quality and meet the needs of teachers and students.

LEARNING AND LIVING IN THE DIGITAL AGE

Shifting to digital is a fast-growing trend and often teacher and student resources are a blend of both print and digital. Digital instructional materials may include full course content, specific apps based on subject areas, online textbooks, or simulations. Digital instructional materials enable real-time communication and collaboration that connect communities of learners, teachers, and experts. They also provide teachers the ability to easily adapt instruction to personalize learning and address students' learning differences, preferences, and goals. Quality digital instructional materials go beyond replacing the worksheet and should be interactive and engaging, and may include features that enable interactivity, real-time decision-making, and collaboration. As students develop the skills needed for life and work in the digital age, experts in the field advocate for personalized learning experiences that put students at the center of learning and empower them to take control of their own learning through flexibility and choice. The Learning Accelerator identifies best practices for blended and personalized learning through strategic integration of in-person learning and technology to improve personalization and promote mastery-based progression.

FEDERAL POLICY SHIFT

Although state education leaders have advocated for digital and blended learning environments for many years, for the first time national legislation defines digital learning and blended learning in the Every Student Succeeds Act (ESSA). As evidenced in ESSA, national leaders are recognizing the benefits of digital instructional materials and resources to support student learning. Technology is no longer a compartmentalized component of the law, instead, technology is woven throughout the legislation. The Center for Digital Education's Guide ESSA, EdTech and the Future of Education policy handbook provides insight into the changes in ESSA related to technology. ESSA supports professional development and capacity building for technology, encourages the use of technology in comprehensive approaches to teaching and learning, and provides states and districts with the flexibility to include technology in a range of initiatives. The National Education Technology Plan (NETP) calls for a "revolutionary transformation rather than evolutionary tinkering" in education and recognizes that we must leverage technology to provide engaging and powerful learning experiences for all students.

State Leadership

State education leaders are committed to providing leadership to ensure that all students have access to personalized, engaging learning experiences supported by tools and resources to best prepare them for living and working in the digital age. At the state level, there is an increasingly important focus on technology and digital tools to support student learning. SETDA research results show that eight states have statutes requiring the implementation of digital instructional materials in the next five years. This is a dramatic shift in state policy, as legislators embrace digital tools and resources to help personalize student learning. Maine is the most recent state to require the implementation of digital instructional materials. The Commissioner of Education established the Digital Content Library for Education which contains high-quality digital educational content and learning resources aligned with state initiatives.

California

California Education Code (EC) Section 60119 requires instructional materials to be aligned to the state-adopted academic content standards in the four core subject areas. The Instructional Quality Commission supervises the instructional materials reviews to establish a list of materials meeting 100% of the state-adopted standards in addition to other evaluation criteria. The State Superintendent of Public Instruction (SSPI) encourages the use of digital instructional materials and devices to improve instruction, student learning and teacher professional development. As of January 1, 2014, adopted instructional materials must also be available in an equivalent digital format. http://www.cde.ca.gov/be/cc/cd/

Louisiana

Statute 17.8.2 urges the State Board to express the desire to utilize digital instructional materials. Louisiana implements an online instructional review process that provides feedback and rankings to reflect the degree of content alignment with state approved standards. The review process only examines digital instructional materials. Districts are free to make purchases of instructional materials with or without benefit of the state review process. https://tinyurl.com/LAMaterais
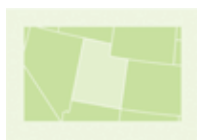
Utah

Utah does not procure resources for schools or districts on a statewide level. Each school/district has the constitutional authority to procure and use digital resources and innovative educational technologies as they deem appropriate to meet educational goals and requirements. Utah provides a Recommended Instructional Materials System (RIMS) which is utilized by most districts, and includes contracted prices that are guaranteed for five years. Funding for digital instructional materials is available through state equipment funds and textbook funds can be used to purchase electronic equipment. http://www.schools.utah.gov/CURR/imc/RIMs-Search.aspx
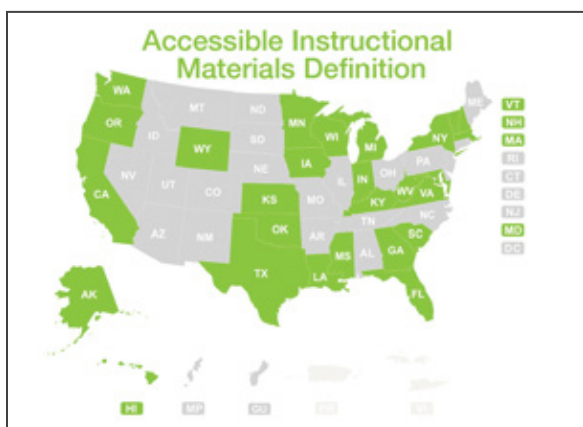
Policies

Guidance for Publishers

GUIDANCE FOR PUBLISHERS

The absence of policy for the acquisition of digital instructional materials, coupled with the complexity of the procurement process, presents obstacles for schools and districts and the companies that want to sell these resources at any level. The survey reports:

- 27 states provide guidelines for publishers interested in selling instructional materials in the state
- 18 states provide guidelines for publishers related to accessibility features in products or services

Accessible Instructional Materials Definition

ACCESSIBILITY POLICIES AND PRACTICES

Considerations related to accessible educational materials and technologies (AEM) must be built into policy development and professional practice. The National Center on Accessible Educational Materials for Learning (AEM Center) has worked with SETDA to embed accessibility considerations into the DMAPS portal.

- 27 states have a definition for accessible instructional/ educational materials
- 18 states have a definition for accessible technologies
- 24 states provide guidance to districts to support the use of accessible digital instructional materials for learners with disabilities to improve outcomes

State Digital Resource Repository
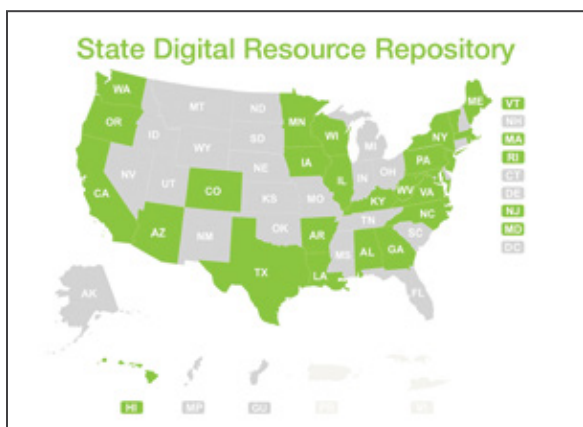
CURATION

After instructional materials are approved, states, districts, and schools need to curate those vetted materials. Key considerations include options for packaging the content and hosting the instructional materials content. Instructional materials should be packaged so that they are easily accessible for teachers and searchable by content area, standard, or grade.

- 27 states host digital repositories
- 8 states host or have a state master contract for a content management system
- 7 states host or have a state master contract for a learning management system

Impact on Learning

DISTRICTS

Fresno Unified, California

Fresno Unified launched 21C Learning Design, an initiative launched with 221 teachers from 89 schools across the district and has already had an academic impact on 12,000 students. It utilizes creative PL, the SAMR model of tech integration and a full class set of laptops. In making the shift to digital, the district has completed 5 major digital textbook adoptions and partnered with online resources and provides thousands of units of credit through online classes.The 21CLD Initiative focuses on developing students' competencies for life, deeper learning experiences that involve student voice and choice and integrating technology in learning. In addition, the Strides program was implemented to increase student achievement through a web-based app for students that uses concepts of self-quantification, nudge theory, virtuous circles, feedback loops and gamification. https://www.fresnounified.org

Fort Thomas Independent Schools, Kentucky

Although, Fort Thomas was one of Kentucky's highest achieving school district based on the state assessments, education leaders wanted a more interactive and collaborative learning environment for their students. In 2012-13, Fort Thomas created a vision for digital conversion. The goals were to eliminate the digital divide; leverage technology as an instructional tool; provide real-world experiences and opportunities; and maximize the efficient use of resources. Fort Thomas identified desired student and teacher outcomes; focused on a blended learning model; evaluated all instructional resources; determined traditional textbooks vs. digital resources vs. content creation; and considered a range of learning resources, tools and products. https://tinyurl.com/FtThomasKYDigital

Northfield Community Middle School, New Jersey

Northfield Community Middle School completely redesigned their school setting to invite innovative learning anywhere and anytime. Modeled after the School at Stanford University, the school implemented new furniture, whiteboards and stationary bikes. As part of their project based learning program, students and teachers develop 3D prosthetic hands for children in need, design video games from books for children and work with those in need from the community. The school implemented a gamified learning management system that allows students to control their own pace of learning during the course of the year which supports personalized learning, digital citizenship, coding, computer design, digital storytelling. https://tinyurl.com/northfieldcommunitytechnology
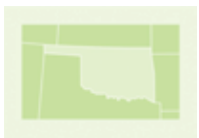
Arthur Elementary School, Oklahoma

The first 1:1 tablet program in Oklahoma City Public Schools offers 700 students, 24/7 personalized learning opportunities. Offering equitable access and providing digital materials, Arthur Elementary achieved a 14-point gain on the state school report card given by the Oklahoma State Department of Education—the largest gain in the district in just one year. https://www.okcps.org/domain/148

Laing Middle School of Science and Technology, South Carolina

Five years ago, Laing Middle school was selected as a pilot site for the 1:1 tablet program and implemented a Whole-School STEM initiative that emphasized hands-on experiences with digital and other technologies. All classes routinely use tablets for research and multi-model student representations of content mastery that include videos, written products, and musical performances. In addition, classes increasingly use student-developed apps, microcontroller-based student projects, and digital design for production with 3D printing, laser cutting, and CNC milling. https://tinyurl.com/LaingMiddleSC

Resources

The Digital Instructional Materials Acquisition Policies for States (DMAPS) online portal is an online database providing state and territory policies and practices related to the acquisition of digital instructional materials in K-12 education. The goal of this portal is to deliver a clear picture of each state's instructional materials, policies, and practices to help encourage increased implementation of digital instructional resources. http://dmaps.setda.org

The From Print to Digital: Guide to Quality Instructional Materials toolkit helps state leaders establish state level review processes and to provide guidance to their districts on the selection of quality instructional materials that are aligned to standards, address educational goals and are accessible for all students. Key considerations, questions and helpful hints are included throughout the guide. Additionally, the guide includes best practice examples from states and districts and national, state and local resources to consider when selecting quality instructional materials. http://qualitycontent.setda.org

DEFINITIONS

DIGITAL INSTRUCTIONAL MATERIALS	PERSONAL LEARNING	ACCESSIBLE
Instructional materials that are created, viewed, distributed, modified, stored on and accessible from computers or other mobile devices. Examples include: computer programs, computer software, digital images, digital audio, digital video, websites, databases, electronic books, etc. http://dmaps.setda.org/glossary/	Personalized Learning is defined in the NETP as instruction in which the pace of learning and the instructional approach are optimized for the needs of each learner. Learning objectives, instructional approaches, and instructional content (and its sequencing) may all vary based on learner needs. In addition, learning activities are made available that are meaningful and relevant to learners, driven by their interests and often self-initiated. https://tech.ed.gov/files/2015/12/NETP16.pdf	The term "accessible" means that a person with a disability is afforded the opportunity to acquire the same information, engage in the same interactions, and enjoy the same services as a person without a disability in an equally effective and equally integrated manner, with substantially equivalent ease of use (Office for Civil Rights Compliance Review No.11-11-6002).