



OFFICE OF
Educational Technology

The Future of Technology in Education

Southern Legislative Conference Annual Meeting
July 31, 2017

Sharon Leu, Sr. Policy Advisor

Office of Educational Technology • US Department of Education



@OfficeOfEdTech | @thesharonleu

Objectives


- Setting the Stage
- A Vision of the Future
- Connecting to the Future
- Discussion



Setting the Stage



What are the biggest challenges
your **education system** faces?



What are the biggest challenges
your **students** face?



How are you using **technology** to
overcome these challenges and
to **transform learning** for your
students?

Office of Educational Technology

tech.ed.gov



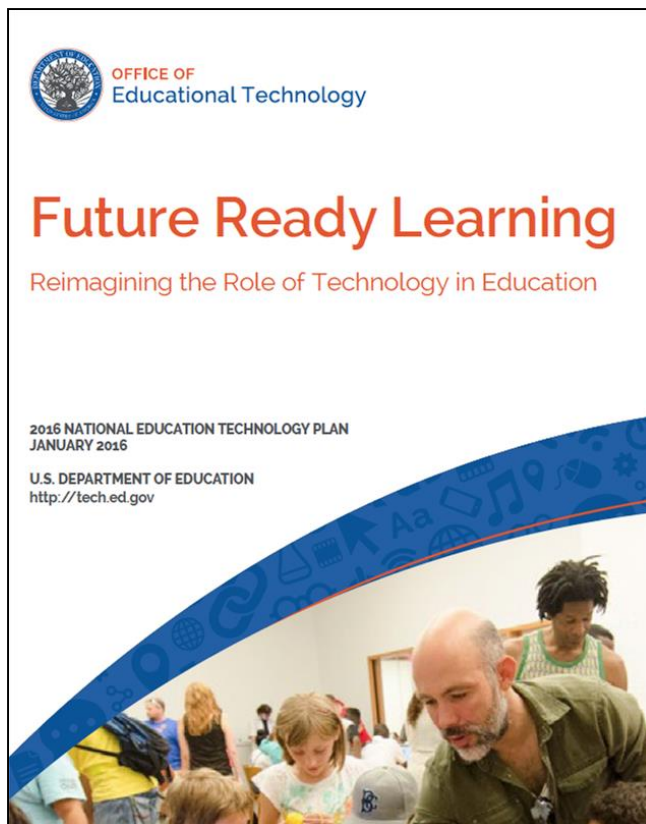
*Works with states, local districts, and institutions to develop **educational technology policy** and establish a vision for how technology can be used to **transform teaching and learning** and make **everywhere, all-the-time** learning possible for early learners through K-12, higher education, and adult education.*



A Vision of the Future

National Education Technology Plan (2017)

tech.ed.gov/netp



THE NETP IS...



a call
to action



a vision for learning
enabled through
technology



a collection
of recommendations
& real-world examples

WRITTEN FOR...



Teachers



Policymakers



Administrators



Teacher preparation
professionals

MAKING POSSIBLE ...

EVERYWHERE, ALL-THE-TIME LEARNING



FITTING THE PIECES TOGETHER



Providing accessibility, resources and connectivity so that learning is everywhere, all the time

- Learning
- Teaching
- Leadership
- Assessment
- Infrastructure

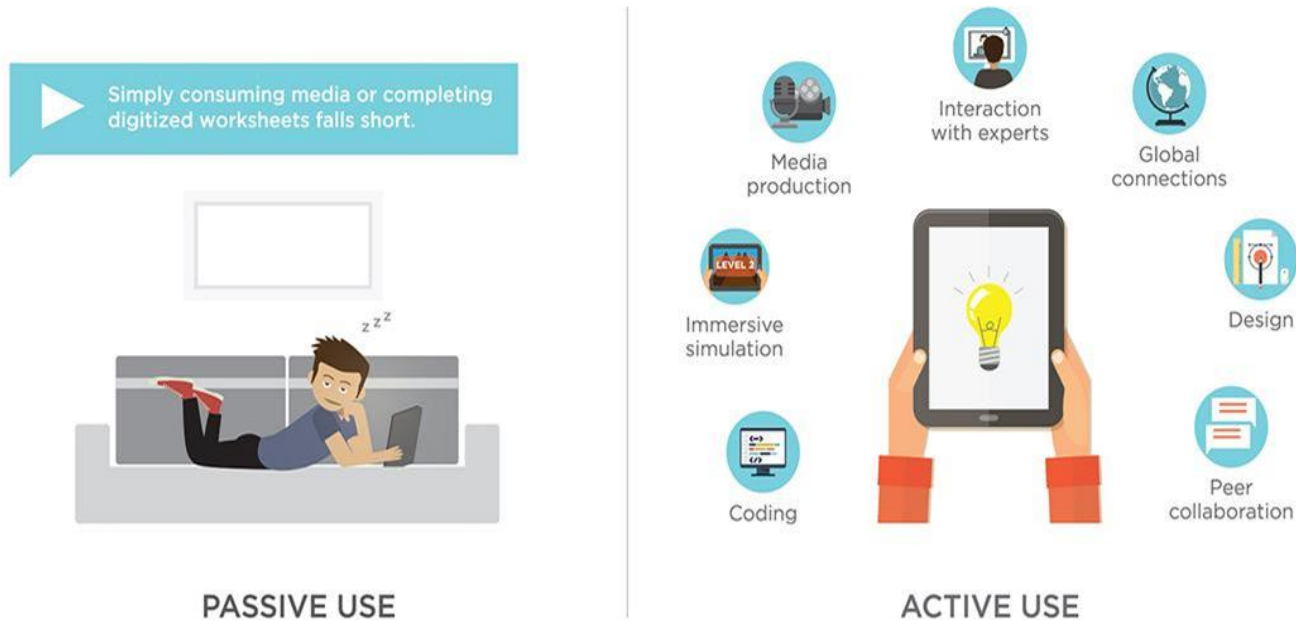


“The NETP focuses on using technology to transform learning experiences with the goal of providing greater equity and accessibility.”

- *connectivity*
- *access*
- *accessibility*

DIGITAL USE DIVIDE

While essential, closing the digital divide alone will not transform learning. We must also close the digital **use** divide by ensuring all students understand how to use technology as a tool to engage in creative, productive, life-long learning rather than simply consuming passive content.



Parkway Mobile Makerspaces

Empowering Librarians as Technology Leaders



Parkway School District (Chesterfield, MO)

- Empowering librarians
- Developing capable, curious, caring, and confident learners

tinyurl.com/mobilemakerspaces

Stories of EdTech Innovation



OFFICE OF
Educational Technology



[Home](#) [About OET](#) [Initiatives](#) [Tech Resources](#) [Publications](#) [Stories](#) [Blog](#)

Stories of EdTech Innovation

Use this tool to browse stories of innovation happening in schools across the nation. By sharing these stories, we hope to connect districts, schools, and educators trying similar things so that they can learn from each other's experiences.

Browse Stories

All

P-12

Postsecondary

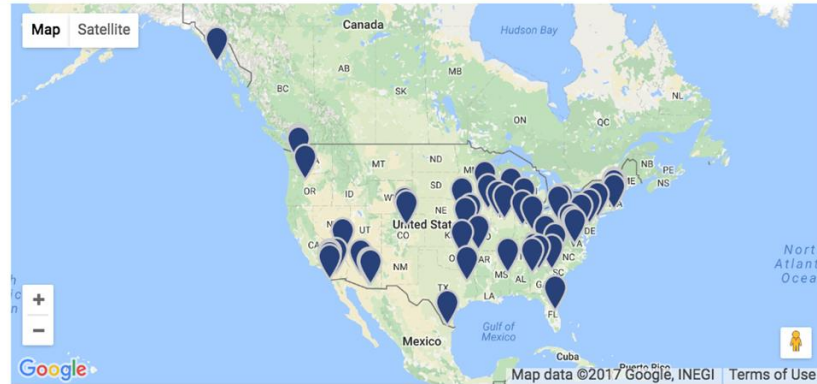
▸ State

▸ Level



Topics :

Openly Licensed Educational Resources (19)



Featured Story:

Highline Public Schools: Personalized Learning as a Pathway to Equity

Highline Public Schools, Washington

Highline Public Schools is a richly diverse school district located just south of Seattle that serves over 20,000 students. The district's promise to families, students, and the community is that ev...



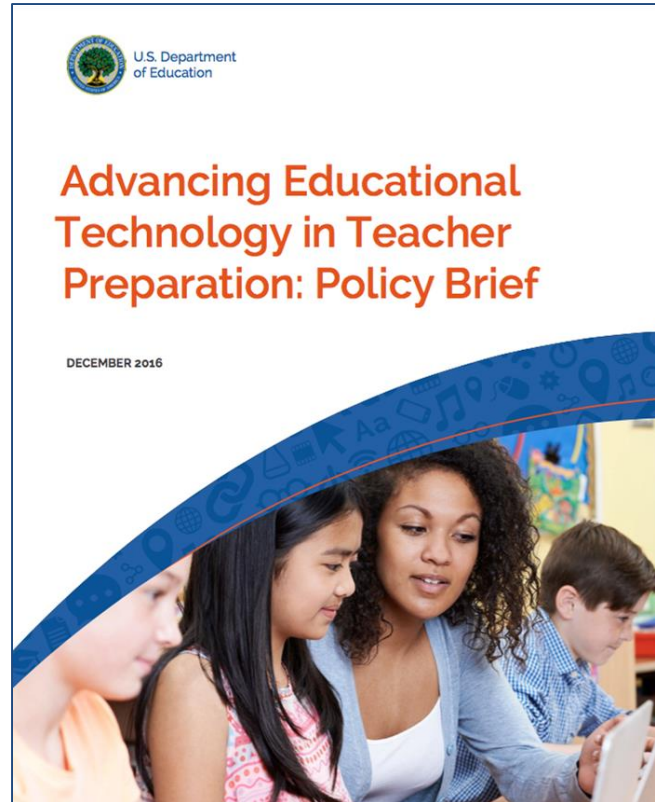
tech.ed.gov/stories



“However, to be transformative, educators need to have the knowledge and skills to take full advantage of technology-rich learning environments.”

Teacher Preparation Policy Brief

tech.ed.gov/teacherprep



Four Guiding Principles

The four guiding principles developed by the OET are:



Focus on the **active use of technology** to enable learning and teaching through creation, production, and problem-solving.



Build **sustainable, program-wide systems of professional learning** for higher education instructors to strengthen and continually refresh their capacity to use technological tools to enable transformative learning and teaching.



Ensure pre-service teachers' experiences with educational technology are **program-deep and program-wide**, rather than one-off courses separate from their methods courses.



Align efforts with research-based **standards, frameworks, and credentials** recognized across the field.

From Textbooks to Tech

#G00pen - Educating Students Through Digital Resources



Columbus Municipal School District
(Columbus, MS)

- Traditional textbooks failed to meet standards and not cost effective
- Do not lead with technology; develop new instructional model first
- K-16 Instructional Technology Integration Model (K-16 ITI Model)

<https://tech.ed.gov/stories/columbus>

#GoOpen Launch Districts

- Decatur City Schools, AL
- Athens City Schools, AL
- Cajon Valley Union School District, CA
- Carlsbad Unified School District, CA
- Coachella Valley Unified School District, CA
- Coronado Unified School District, CA
- Fallbrook Union Elementary School District, CA
- Grossmont Union High School District, CA
- Huntington Beach Union School District, CA
- Leadership Public Schools, CA
- Madera Unified School District, CA
- Mountain Empire Unified School District, CA
- Napa Valley Unified School District, CA
- Panama Buena Vista Unified School District, CA
- Riverside Unified School District, CA
- San Antonio Union School District, CA
- San Diego Unified School District, CA
- Colorado Digital BOCES, CO
- Connecticut Technical High School System, CT
- Colonial Public Schools, DE
- Red Clay School District, DE
- Broward County Public Schools, FL
- Orange County Public Schools, FL
- Forsyth County Public Schools, GA
- Cedar Rapids Community School District, IA
- Council Bluffs Community Schools, IA
- Lewis Central CSD, IA
- United Community School District, IA
- DeKalb CUSD #428, IL
- Illini Bluffs CUSD #327, IL
- Macomb CUSD #185, IL
- Urbana School District 116, IL
- Noblesville School District, IN
- MSD Warren Township, IN
- MSD Southwest Allen County, IN
- Topeka Public Schools, KS
- Burlington Public Schools, MA
- Medfield Public Schools, MA
- North Reading Public Schools, MA
- Anne Arundel Public Schools, MD
- Howard County Public Schools, MD
- Dryden Community Schools, MI
- Marlette Community Schools, MI
- Marysville Public Schools, MI
- Mona Shores Public Schools, MI
- Wayland Union Schools, MI
- Grain Valley School District, MO
- Hancock Place School District, MO
- Harrisonville Cass R-IX School District, MO
- Kearney School District, MO
- Lee's Summit R-VII School District, MO
- Parkway School District, MO
- Pattonville School District, MO
- Ritenour School District, MO
- Mooresville Graded School District, NC
- Northwest Public Schools, NE
- Zuni Public Schools, NM
- Jamesburg Public Schools, NJ
- Lavallette and Bay Head School District, NJ
- Spotswood Public Schools, NJ
- Ballston Spa Central School District, NY
- Middletown City School District, NY
- Mineola UFSD
- Avonworth School District, PA
- Bethel Park School District, PA
- Carlynton School District, PA
- Centennial School District, PA
- Deer Lakes School District, PA
- Duquesne City, PA
- Downingtown Area School District, PA
- Ephrata Area School District, PA
- Fox Chapel Area School District, PA
- Garnet Valley Area School District, PA
- Hampton Township School District, PA
- Mars Area School District, PA
- Plum Borough School District, PA
- Steel Valley School District, PA
- Charlottesville City Schools, VA
- Department of Defense Education Activity, VA
- Henry County Public Schools, VA
- Loudoun County Public Schools, VA
- Virginia Beach City Public Schools, VA
- Chief Leschi Schools, WA
- Sun Prairie Area School District, WI
- Weston County School District #7, WY

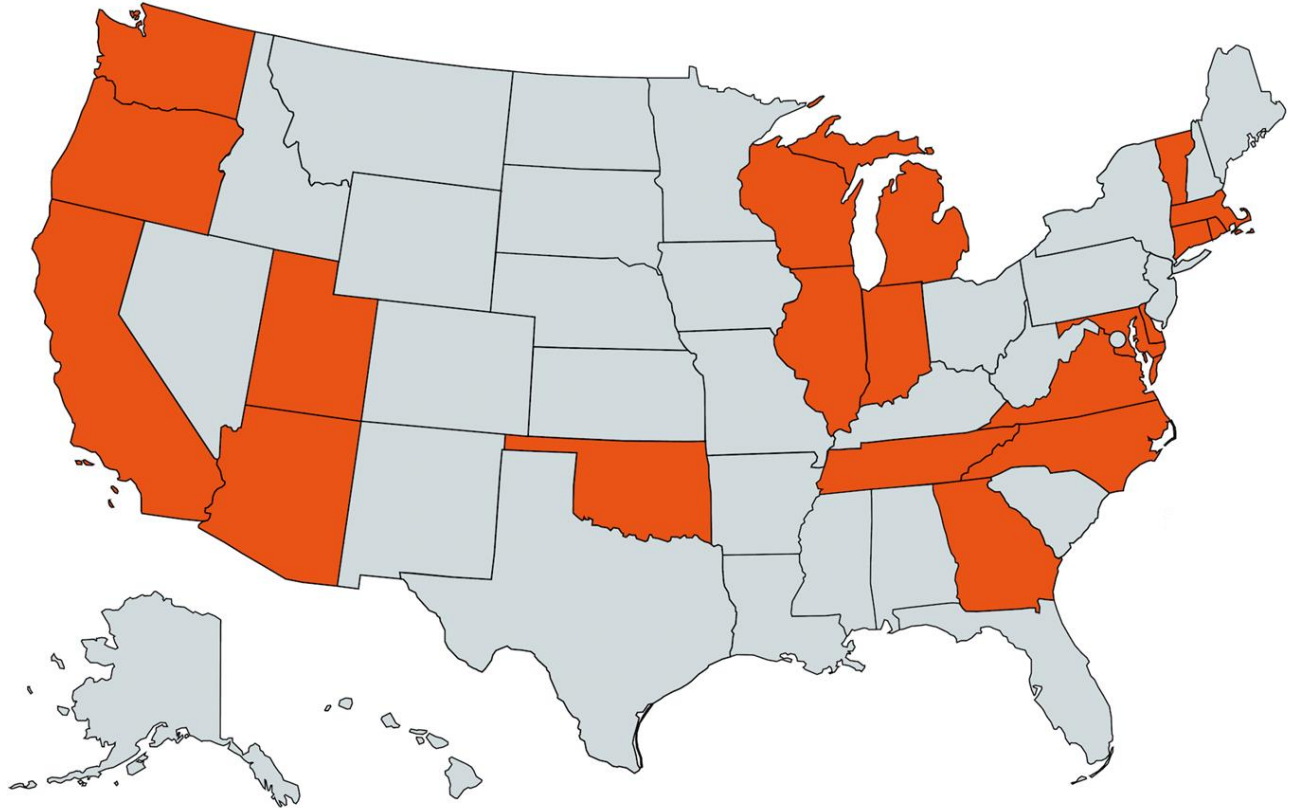
#GoOpen Ambassador Districts

- Deer Valley Unified School District, AZ
- Vista Unified School District, CA
- Williamsfield Community School District, IL
- Lawrence Public Schools, KS
- Hollister R-V School District, MO
- Liberty Public Schools, MO
- North Kansas City School District, MO
- Columbus Municipal School District, MS
- Brooklyn Laboratory Charter School, NY
- Mentor School District, OH
- Broken Arrow Public Schools, OK
- Central Valley School District, PA
- Upper Perkiomen School District, PA
- Bristol Tennessee Schools, TN
- Tullahoma City Schools, TN
- El Paso Independent School District, TX
- Mountain Heights Academy, UT
- Chesterfield County Public Schools, VA
- Hampton City Schools, VA
- Bethel School District, WA
- Puyallup School District, WA
- Kettle Moraine School District, WI

109 #GoOpen
Districts

20 #GoOpen States

- Arizona
- California
- Connecticut
- Delaware
- Georgia
- Illinois
- Indiana
- Maryland
- Massachusetts
- Michigan
- North Carolina
- Oklahoma
- Oregon
- Rhode Island
- Tennessee
- Utah
- Vermont
- Virginia
- Washington
- Wisconsin



Obstacles to Opportunities

#GoOpen - Digital Learning Conversion



Bristol Tennessee City Schools (Bristol, TN)

- There are no unicorns
- Don't forget content creation
- Focus on short term goals
- Create a small core of tech evangelists

<https://tech.ed.gov/stories/bristol>



ASSESSMENT

Understanding
learning progress

“Technology-enabled assessments support learning and teaching by communicating evidence of learning progress and providing insights to teachers; administrators; families; and, most importantly, the learners themselves.”



“For these systemic changes in learning to occur, education leaders need to create a shared vision for how technology best can meet the needs of all learners and to develop a plan that translates the vision into action.”

Bear Creek Middle School

Empowering Librarians as Technology Leaders



Fulton County School District (Atlanta, GA)

- Device in itself is not personalized learning, but a tool to facilitate personalization
- Two-tiered professional learning strategy
- 7 instructional principles

<https://www.thinglink.com/scene/785128426003496961#>

Choice and Voice

Students express their learning styles and preferences as learners in the lesson.



Choice for Demonstrating Learning

Students have multiple ways to demonstrate mastery of standards. They can leverage both technology tools and traditional tools.

Mastery Based Assessment

The students drive the curriculum rather than the curriculum driving the students. Assessments are guided by proficiency and competency.

Varied Strategies

Students are given more than one way or modality to learn the material or access content.

Flexible Pacing

Students move through the curriculum at a pace that fits their individual abilities and allows for mastery of learning rather than a time-bound learning schedule.

Co-planning Learning

Students, parents and community are involved in planning and setting goals, demonstration of learning, pace, and mastery level.

Just-in-time Direct Instruction

Direct instruction is available to students when it is needed regardless of the availability of an in-person teacher.



Everywhere, All-the-Time Infrastructure



Quality Digital
Content &
Resources



Digital Citizenship
& Responsible Use



Home Internet
Access



High-Quality,
Low-Cost Devices



High-Speed
Connectivity to Schools



Data Privacy
& Security



High-Speed Wifi
Throughout Schools

Connectivity

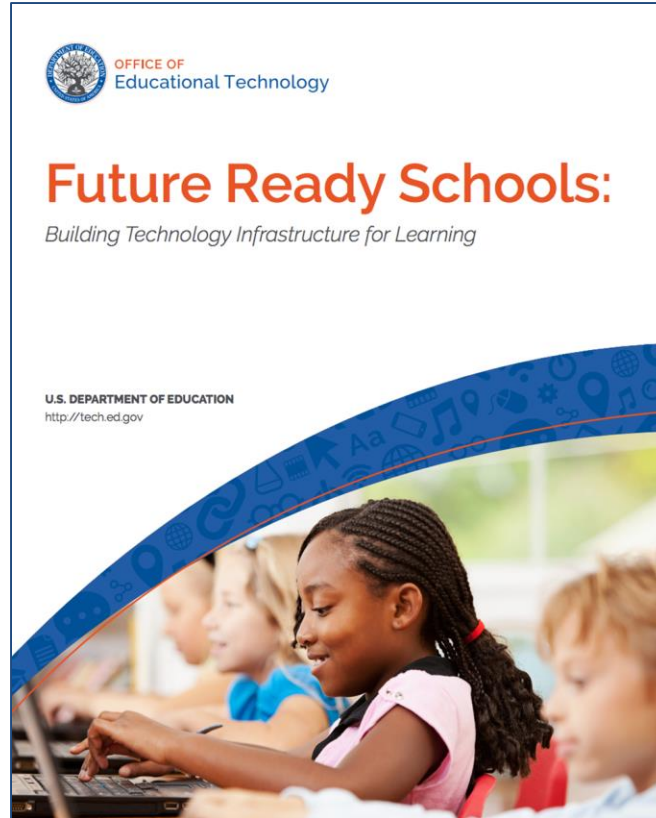


High-Speed
Connectivity to Schools

- 88% of school districts meet FCC's minimum connectivity goal - 100 MBPS/1000 students
- 34.9 million students (75%) are connected to high speed broadband
- Challenge: 11.6 million students still lack high speed broadband access
- Cost, lack of physical infrastructure pose challenges for rural schools
- *Infrastructure Guide*

Building Infrastructure for Learning

<https://tech.ed.gov/futureready/infrastructure>



Key Questions

Important considerations as you plan to bring and increase connectivity

1. Getting Started: Assess Your Current Situation and Set Future Goals (Section 1)
2. Getting High-Speed Internet to Schools (Section 2)
3. Getting High-Speed Internet Throughout Schools (Section 3)
4. Getting Devices to Students and Teachers (Section 4)
5. Determining Responsible Use, Student Privacy, and Other School Policies (Section 5)

Future Ready Schools: Quick Reference Guide of Key Questions for Planning Technology Infrastructure

The questions listed below address many of the important considerations as you plan to bring and increase connectivity throughout your district and schools. Each set corresponds to further guidance within *Future Ready Schools: Building Technology Infrastructure to Support Learning* at tech.ed.gov/infrastructure.

1. Getting Started: Assess Your Current Situation and Set Future Goals (see Section 1)

- What is the vision for learning that technology will be supporting?
- What digital learning resources will be needed?
- What kind of professional development will teachers need to become proficient with digital learning?
- What is your current network capacity?
- What is the current state of your physical infrastructure?
- How many and what type of devices does your network support now? What is planned for the future?
- What resources are available to fund the transition?

2. Getting High-Speed Internet to Schools (see Section 2)

- What are the options for high-speed Internet access in your area?
- Which of the connectivity path is best for your district's needs?
- What are the elements that will affect cost in your area?
- What funding sources are available to get Internet to schools?
- What resources are available for rural schools?

3. Getting High-Speed Internet Throughout Schools (see Section 3)

- What are the steps in planning a wireless network inside a school?
- What physical infrastructure considerations will impact the network?
- How should the network be provisioned, configured, and managed?
- How should security risks to the network be managed?

4. Getting Devices to Students and Teachers (see Section 4)

- Why are devices important?
- Which factors should be considered when selecting devices?
- What about BYOD programs?
- How will you pay for devices?
- What funding sources are available?
- How often will devices need to be replaced?
- How will devices be maintained?
- Should your school allow devices to be taken home?
- How should devices be rolled out?

5. Determining Responsible Use, Privacy, and Other School Policies (see Section 5)

- How should devices be managed?
- How can schools ensure and encourage responsible use of devices?
- What are school obligations for protecting the privacy of students?
- How should content filtering on devices work?
- Which policies for lost or damaged devices make sense?

<https://tech.ed.gov/files/2015/02/Infrastructure-Quick-Reference.pdf>

When Bus Rides Become Hotspots

Reducing the Homework Gap



Sunnyside Unified School District
(Tucson, AZ)

- District-provided devices to do homework before and after school
- Partnership with Tohono O'odham Indian Reservation

<https://tech.ed.gov/stories/internet-access-to-low-income-homes>

A large, stylized Wi-Fi symbol in the background, composed of four concentric, rounded arcs in a light blue color. The arcs are slightly offset from each other, creating a sense of depth and movement. The symbol is centered horizontally and vertically on the page.

Connecting to the Future



How do you know what
technology is right?

Rapid Cycle Evaluations for Ed Tech

ED TECH RCE COACH *beta*

 [Login](#) | [Create Account](#)



Is your Educational Technology
moving the needle in the classroom?

The Ed Tech Rapid Cycle Evaluation Coach helps you evaluate educational technology use in your school so that you can make better, more informed decisions and improve student outcomes.

GET STARTED

“The RCE Coach” Workflow

The Ed Tech RCE Coach will guide you through the following steps:



1

GETTING STARTED

The Coach will recommend an approach to evaluate your technology.

2

PLANNING YOUR RESEARCH

The Coach will help you design an evaluation based on the outcomes you are interested in and your unique context.

3

PREPARING YOUR DATA

The Coach will use your data to create two comparable groups—technology users and non-users.

4

ANALYZING YOUR DATA

The Coach will automatically conduct the analysis and give you the results.

5

SUMMARIZING YOUR FINDINGS

The Coach will compile your results and all of the information you have entered into one succinct document or presentation.



Districts that are interest in
joining a pilot: edtechrce.org



What is your vision?



Does this vision provide learning
experiences for **all students**?



Do your **existing resources** allow
you to achieve this vision?



What **partners** do you need?



What can **OET** do to support you
in your transition to digital
learning?



Student Support and Academic Enrichment (SSAE) Updates

FY 2017 SSAE Funding & Timing

- » FY 2017 Consolidated Appropriations Act includes a total of **\$400 million** for SSAE
- » Funds distributed to SEAs in July 2017
- » The Act made important changes to SSAE for FY 2017

New Option for FY 2017: Competitive Subgrants

- » Whereas the SSAE statutory authority only provides for formula grants, the appropriations law adds an option for States to distribute Title IV, Part A funds competitively
- » <https://safesupportivelearning.ed.gov/sites/default/files/TIVPA%20SSAE%20Webinar%204%20Slides%20v7%205.24.2017.pdf>

Minimum Allocations for Competitive Subgrants

- » If a State distributes funds competitively, the minimum expenditure requirements are moved up to the State level
- » In addition, LEAs receiving competitive subgrants are not subject to the minimum expenditure requirements applicable to formula subgrants

Percentage of Funds for Technology Infrastructure

- » An LEA that receives a competitive subgrant **only for** activities under the effective use of technology content area may use up to **25 percent of funds** for technology infrastructure



OFFICE OF
Educational Technology

Thank you!



<https://www.facebook.com/officeofedtech>



[@OfficeOfEdTech](https://twitter.com/OfficeOfEdTech)

Web: tech.ed.gov

Blog: <https://medium.com/@OfficeofEdTech>