

SREB

Educational Technology Cooperative

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Summer Workshop Series

**Presented by
Center on Technology and Disability**

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Understanding Assistive Technology: Policy and Implications for State Leaders

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Welcome and Introductions



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Agenda

- Assistive Technology Basics
- Future of Assistive Technology
- Assistive Technology Policy
- Implications for State Leaders



What level of education do you represent?

- K-12
- Community College
- University

Assistive Technology

Understanding the Basics

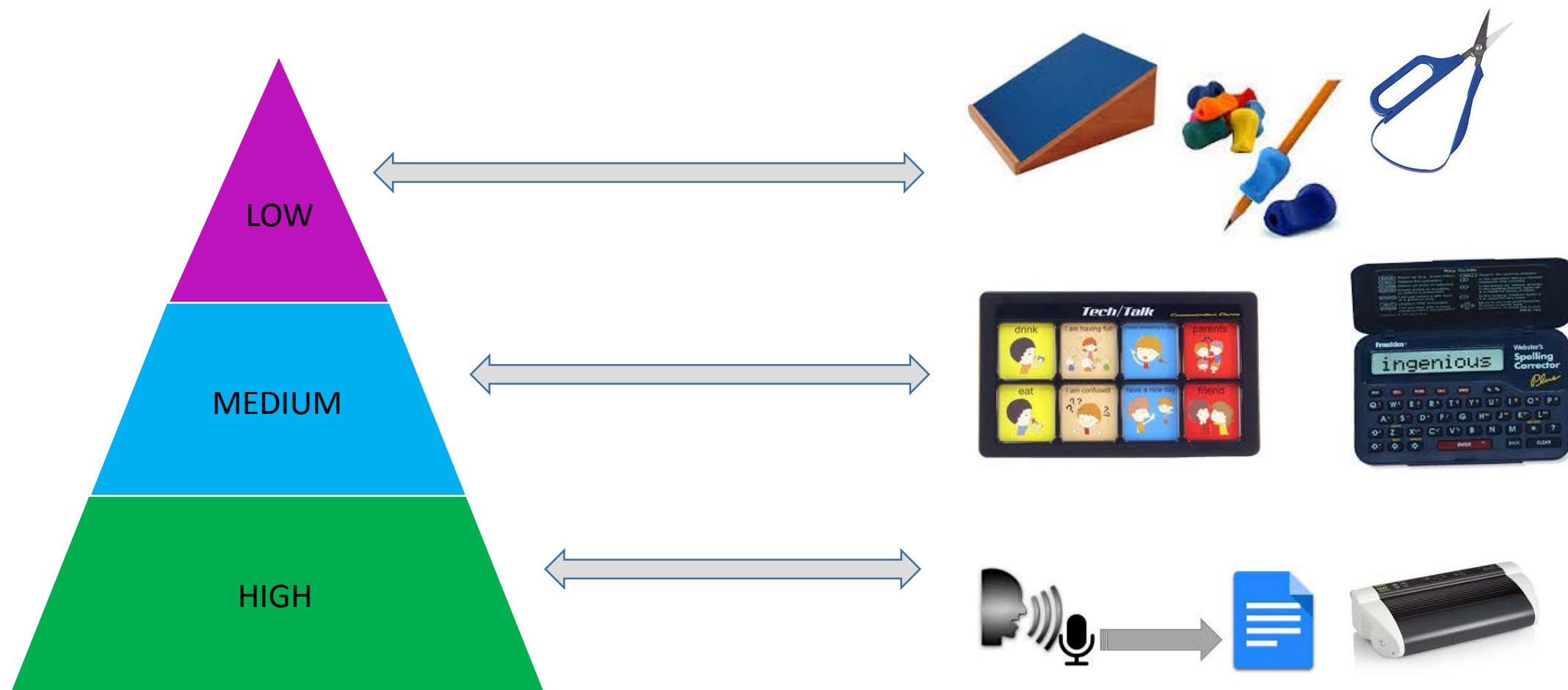
Assistive Technology Definitions

- Assistive Technology Device
 - “Assistive technology is any item, piece of equipment or product, whether acquired commercially, off the shelf, modified, or customized to increase, maintain, and improve the functional capabilities of individuals with disabilities” (Technology Related Assistance Act 2004)
- Assistive Technology Service
 - The term ‘assistive technology service’ means any service that directly assists an individual with a disability in the selection, acquisition, or use of an assistive technology device

Categories of Assistive Technology

- General categories of assistive technology products include:
 - Alternative and Augmentative Communication (AAC)
 - Aids for computer access (alternative input or output, specialized software)
 - Vision or reading aids
- Not all of these categories will be present in school or classroom settings:
 - Environmental controls
 - Transportation aids

Types of Assistive Technology



Examples of AT in the School/Institution Setting

Communication Supports

- AAC devices, communication Boards, text to speech software
- Writing software, word prediction, notetaking devices, etc.

Computer Access

- Eye tracking software, head pointers, voice input
- Alternative keyboards
- Voice input, speech to text tools

Future Ready Assistive Technology

Where are we headed?

Convergence of AT and IT

- AT in the past was often standalone devices or software – specialized and expensive purchases
- Many mainstream technology tools now have robust accessibility features built in:
 - Voice input for Google Docs
 - Digital texts with read aloud features
- Mainstream tech customized with assistive apps:
 - Communication apps replacing dedicated speech devices
 - Apps that use smartphone camera to identify objects for visually impaired

Game Changing Emerging Tech

- Smaller and less expensive hardware
- Reductions in power needs, more affordable, smaller power sources
→ portability and wearability
- New developments in user interfaces and input options (e.g., touch screens, gesture recognition, brain interfaces, haptic feedback)
- Open-source and social media-driven community development (e.g., Arduino, Do-It-Yourself (DIY) and Makerspaces)
- Consumer-level access to tools of development and creation (e.g., 3D printers, Raspberry Pi, app development tools)

Science Fiction in Your Classroom

- Haptic footwear for the blind
- Brain-computer interfaces for communication
- Translation apps for people with speech disorders
- Biometric identification
- Gesture recognition apps for sign language translation
- Custom-designed and 3D printed prosthetics
- Pocket-sized refreshable Braille displays
- “Smart” scheduling apps for people with autism and executive functioning issues

Shaping the Future of Special Education

- Rapid changes in technology will continue to shape the future of special education
- Blurred lines between AT and mainstream technologies
- Emerging technology presents new opportunities and new challenges for students with disabilities
- Anytime, anywhere learning opportunities will have a profound impact on students with disabilities
- Understanding shifts in the technology landscape imperative for state education leaders as they develop the procedures, guidance, policies, and funding structures

Are You Future Ready?

- Are we ready for the impact of multiple students accessing our network with multiple devices?
- Do we need to rethink our mobile phone policies? When is a smartphone a distraction and when is it AT?
- As technology increases data collection, how will we use data to personalize learning while safeguarding the privacy of students with disabilities?
- How do we serve students with disabilities in online learning programs?



One in five Americans (20 percent) report having a disability.

- True
- False

Assistive Technology Policy

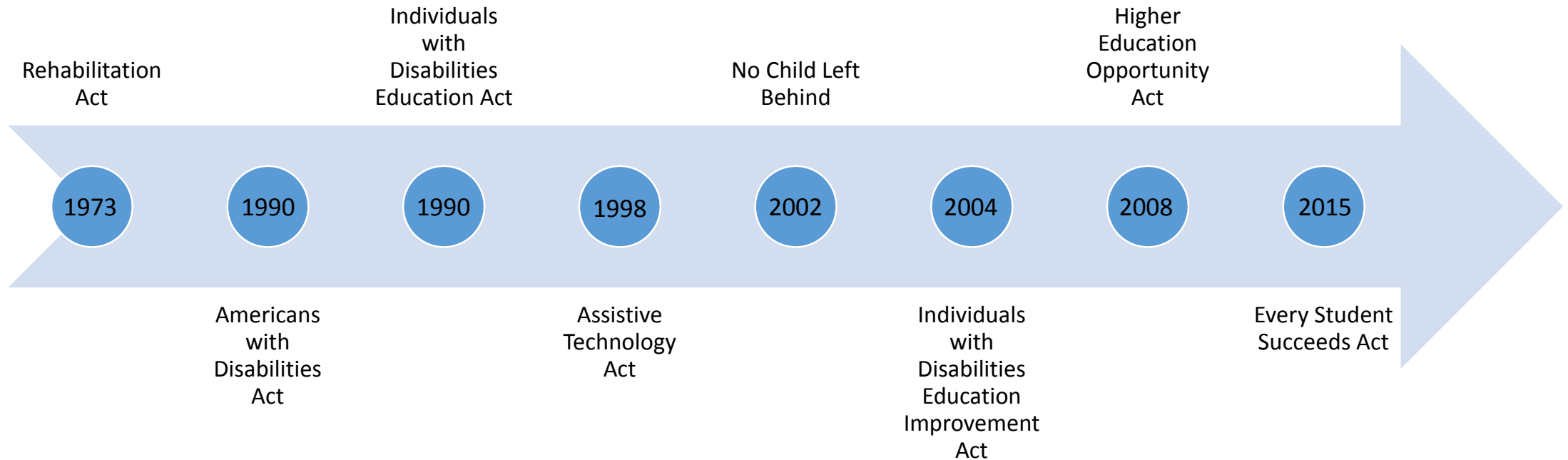
Technology Legislation Affecting Students with Disabilities



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Evolution of Legislation Related to AT



Shifting K-12 Policy Landscape

As AT and mainstream technology have converged, the federal K-12 policy landscape has shifted to focus on:

- Innovative ways to leverage technology for learning
 - ConnectED
 - Future Ready Schools
 - 2016 National Education Technology Plan
- Evidence-driven instruction for students with disabilities
 - Results Driven Accountability
- Increased flexibility for states to develop their own plans for school improvement and innovation
 - Every Student Succeeds Act

Policies Affecting AT in Higher Education

- Section 504 and ADA protect students who are otherwise qualified for program or activity, and may do so with accommodations
- ADA Amendments Act of 2008 provided additional clarification on determining disability – found that guidelines had been too strict and not in keeping with the intentions of ADA
- 2010 Dear Colleague Letter on Electronic Book Readers clarified existing law (ADA, Section 504) in response to higher education use of ebook readers – emerging tech must be accessible

Guidance on Emerging Technologies

- New policies and clarification of existing law have made clear that emerging technologies are an important part of education and we cannot exclude students with disabilities from these opportunities.
- As we implement new technologies, there is a **continuing** legal obligation to
“provide an equal opportunity to individuals with disabilities to participate in, and receive the benefits of, the educational program, and the obligation to provide accommodations or modifications when necessary to ensure equal treatment”

“Emerging technologies are an educational resource that enhances learning for everyone, and perhaps especially for students with disabilities. Technological innovations have opened a virtual world of commerce, information, and education to many individuals with disabilities for whom access to the physical world remains challenging. Ensuring equal access to emerging technology in... classrooms is a means to the goal of full integration and equal educational opportunity for this nation’s students with disabilities.”

(U.S. Department of Justice; U.S. Department of Education, 2010)

Implications for State Leaders

What does this mean for you?

What Does This Mean for You?

- Provision of assistive technology and related services is a legal requirement
- Technology purchasing decisions MUST consider accessibility for students with disabilities
- Mainstream and AT devices in use by students with disabilities may require changes in learning spaces, infrastructure, and funding
- New technologies will require rethinking special education policies and procedures

It's the Law...

But, technology advances, increased funding, and a national focus on technology for learning also mean that state and local education leaders have an unprecedented opportunity to

- Blend and braid funding streams for innovative technologies
- Develop plans for school improvement or quality enhancement plans that combine technology tools with high quality instruction to drive improved outcomes
- Maximize learning resources
- Ensure that students with disabilities are receiving equal access to engaging and challenging learning experiences

Questions to Consider

- How can we leverage multiple funding sources for new technologies?
- When is technology “assistive”? When is mainstream technology the right choice for a student? How will funds be used for these devices?
- What policies do we need to ensure equitable access to technology?
- How does our concept of least restrictive environment (LRE) change when boundaries to learning are blurred or learning happens in virtual spaces?
- What policies can support the use of accessible digital content and open educational resources (OERs)?

How Do We Get There?

- Break down silos and build bridges between technology teams, AT specialists, special and general educators to leverage technology to meet the needs of students with disabilities.
- Invest in planning, budgeting, building infrastructure, and training opportunities to realize the potential that technology advances offer for students with disabilities.
- Work to establish systems for state -wide collaboration among general and special education around the effective use of assistive and instructional technology.
- Blend and braid funding to create PD around how to use technology to benefit ALL students

What Is My Role?

You are in a unique position to help set the agenda and vision for technology enriched education in your state.

- Guide the discussions to rethink, reshape, and redesign both special and general education
- Ensure new technologies are in compliance with federal disability law
- Create supportive structures for the use of technology to ensure that students with disabilities have fair and equitable access to learning opportunities



Who manages assistive technology services for your institution or school?

- IT Staff
- Educational Technology Staff
- Disability Services Staff
- Special Education Staff
- Consultants or other

What's Next?

- Fill out survey if you haven't already
- Join us August 16th for “Understanding Accessibility” webinar to go deeper into these issues
- Contact Alise (acrossland@air.org) or Tracy (tgray@air.org) with questions



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“Assistive and Instructional Technology Supporting Learners with Disabilities”

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