



# *Inclusive Technology*

in Modern Learning Environments

Student Experiences and Four Key Federal Laws



## For students across the country, technology affords new opportunities for inclusion, deeper learning, engagement, and connection.

However, when systems or products are not conceived, designed, bought, used, and evaluated with the needs of all students in mind, technology can also exacerbate and magnify existing inequalities in our education system. Ensuring the former benefits and avoiding the latter pitfalls will demand frank conversations, thoughtful action, and unwavering commitment to equity and inclusion by a range of stakeholders.

This collaborative primer builds on “Inclusive Technology in a 21st Century Learning System” developed by the [National Center for Learning Disabilities](#). Knowing that conditions on the ground vary, our groups came together to build on this report and to identify key federal considerations around four laws—the Americans with Disabilities Act (ADA), the Every Student Succeeds Act (ESSA), the Individuals with Disabilities Education Act (IDEA), and the Rehabilitation Act—that must be considered in implementing the following inclusive technology plan:



### **PHASE 1. VISION:**

Ensuring that the vision – which should drive product selection, procurement, and resource allocation decisions related to implementation – is inclusive of all students’ needs.



### **PHASE 2. DESIGN:**

Ensuring that the design of the product embraces full inclusion.



### **PHASE 3. PROCUREMENT AND PURCHASE:**

Ensuring sufficient stakeholder engagement, clearly communicated goals on inclusion, and informed decision-making.



### **PHASE 4. USE:**

Ensuring educator and system capacity to use the product inclusively.



### **PHASE 5. CONTINUOUS IMPROVEMENT:**

Ensuring continuous learning and improvement.

This brief presents the experiences of two hypothetical students and one hypothetical district in implementing an ed tech plan that appropriately safeguards students’ rights. A note to the reader. While we only highlight two different types of disabilities and one law per phase, each law applies to all the five phases, and laws may have different individualized implications for different disability categories.

# Student Hypothetical Example: Siblings David and Ashley

---

**David** is a fifth grader diagnosed with dyslexia, a specific learning disability that inhibits reading fluency and accuracy. David's Individualized Education Program (IEP) calls for a text-to-speech tool and pictures of directions or schedules.



**Ashley** is a third grader diagnosed with autism, which inhibits her capacity to control repetitive behaviors and use speech and nonverbal communication. Ashley's IEP calls for reducing the amount of sensory stimuli when too much would inhibit her learning.

*\*These are just two of the 13 recognized disability categories under IDEA and are outlined here to be instructive of various issues facing all disability groups.*

## Four Primary Federal Statutes Impacting Technology and Disability

---

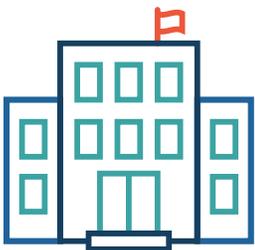
1. Americans with Disabilities Act (ADA): Prevents discrimination against individuals with disabilities in public accommodations and telecommunications.
2. Individuals with Disabilities Education Act (IDEA): Entitles students with disabilities to a free and appropriate public education (FAPE) in the least restrictive environment (LRE) and provides special education and related services.
3. Every Student Succeeds Act (ESSA): Provides all students, including those with disabilities, with challenging academic standards and holds schools accountable for the progress of all students.
4. The Rehabilitation Act: Requires federal agencies to procure, develop, maintain, and use technology that is accessible to people with disabilities (Section 508).



### *District Fictional Example:*

## *Anytown Unified School District (AUSD) 21st-Century Digital Learning Plan*

---



AUSD is looking to implement a comprehensive digital learning plan. This plan includes media maker space in every school, providing students the opportunity to design products, work on projects, and create videos. Among other provisions, the plan also includes access to carts with digital tools to support and enhance learning for students, as well as training for educators to leverage these tools effectively.

# Phase 1: *Vision*

---



## The vision guides why and how the local entity is deploying technology to support student learning.

Student and District Experience: In devising its digital learning vision and associated plan, AUSD must account for the fact that every classroom in the district has students like David and Ashley, as well as those with other disabilities.

If the vision of the district is to have every student progress in education with the knowledge, skills, and dispositions essential for college, career, and civic success, then it must ensure that the ed tech it considers purchasing addresses both foundational and higher-level learning needs of its

diverse learners – including students with disabilities like David and Ashley as well as their peers without disabilities.

The four statutes safeguard, to the extent possible, David and Ashley’s right to be educated in general education classrooms (ADA and IDEA), hold AUSD accountable for their meaningful progress (ESSA), and support accommodations for students to achieve success in the general education classroom (ADA, Rehabilitation Act, and IDEA).

---

**IDEA’s strong preference is that “to the maximum extent appropriate, children with disabilities ... are educated with children who are nondisabled ... with the use of supplementary aids and services.”**

*Section 300.114 IDEA LRE Requirement*

---

# Phase 2: *Design*

---

## The product developers design, guide, communicate, and collaborate to develop products that meet the educational needs of *all* learners.

Student and District Experience: Knowing that more districts like AUSD have a vision to address needs of their diverse learners – and, indeed, are often legally obligated to do so – vendors must be aware of and responsive to the inclusive learning needs of Ashley, David, and their peers. If they are to have a comparative advantage in winning contracts with districts and fulfilling the social benefit of their companies, they must design, engineer, build, and sell products with built-in universal design features. And they must be ready to help educators understand how and why the tool should be used to support high-quality learning.

---

**“Accessibility Standard. Electronic content shall conform to ... Success Criteria and Conformance Requirements in WCAG 2.0 [Web Content Accessibility Guidelines 2.0].”**

*Section 508, Rehabilitation Act.*

---

Companies can do this by understanding and complying with standards in federal laws and regulations, and by staying ahead of statute reauthorizations that delineate those rights. AUSD and other districts’ investments in technology often reflect long-term bets on a product’s ability to support the district’s overall goals. Wise companies will design products that are tested and informed by users (including by students with diverse needs), that are dynamic, and that can

evolve with the changing equity and instructional goals of their consumers—both school districts and students like Ashley and David. Standards such as the Web Content Accessibility Guidelines (WCAG) that lay out principles of perceivability, operability, understandability, and robustness can ensure compliance both with laws and with emerging best practice. Learn more about these standards at: <https://www.w3.org/WAI/standards-guidelines/wcag/>



# Phase 3: *Procurement*

---



**The procurement phase answers how local entities address considerations in ed tech purchase contracts that account for the needs of their diverse learners.**

Student and District Experience: Few individuals have all the knowledge to effectively execute an inclusive ed tech plan that abides by quality instructional standards. For districts like AUSD, such knowledge includes not only an understanding of sound instruction and the ins and outs of specific ed tech products, but also the foresight and understanding to recognize how those products interact with the diverse learning needs of Ashley, David, and other students with disabilities. For example, a learning management system AUSD invests in could have built-in text-to-speech features that would support David’s learning—but that would simultaneously overstimulate Ashley. While hardly

any product can address every contingency or student learning need, districts like AUSD must be proactive in identifying ways to accommodate diverse students’ learning needs. Indeed, such intentionality must be embedded in the procurement process itself. That process – including both the specific or suggested language for contracts – must emphasize the need for universal design features within products, while also highlighting the need for compliance with federal civil rights laws.

---

**“A public entity shall take appropriate steps to ensure that communications with applicants, participants, members of the public, and companions with disabilities are as effective as communications with others.”**

*Title II, of the Americans with Disabilities Act*

---

# Phase 4: *Use*

---

## **The use phase accounts for how local entities align human capital and technical capacity to meet the needs of their diverse learners.**

Student and District Experience: AUSD staff recognize that the products they purchase don't exist in a vacuum – they function within a specific learning ecosystem. That ecosystem includes the needs of specific students, the skills of educators and support staff to leverage products inclusively toward their intended use, and the product's capacity to work alongside other products the district has already purchased and deployed. If any link is weakened along that chain comprising the district's learning goals, the product, the district's technical capacity, and the district's human capacity, then student learning and rights can be compromised. AUSD's investment in products doesn't end with a purchase. It also includes capacity-building and professional alignment to ensure that the product is used to benefit all learners. ADA and other civil rights laws are implicated here—to safeguard the rights of students with disabilities as well as staff members with disabilities (school leaders, educators, paraprofessionals, and others).

---

**To “increase access to personalized, rigorous learning experiences supported by technology,” local education agencies are provided technical assistance to improve their ability to “use technology, consistent with the principles of universal design for learning, to support the learning needs of all students, including children with disabilities and English learners.”**

*Section 4104, State Use of Funds, Every Student Succeeds Act (ESSA)*

---



# Phase 5: Continuous Improvement

---



**The continuous improvement phase reflects the steps local entities establish to ensure that future purchases and use of technology continuously improve the experiences of their diverse learners.**

To be successful, AUSD's process must be iterative—in other words, it must observe how effectively the intersection of the product, district learning goals, staff, and technical capacity perform over time for students as a whole and for specific subgroups of students. This iterative process accounts for the fact that laws and legal interpretations of those laws also evolve with time. For example, though none of the four laws discussed in this brief have been reauthorized since 2016, a 2017 United States Supreme Court case, *Andrew F. v. Douglas County School District*, established a finer legal point on students' rights to a quality education.

---

**“The broad purpose of the IDEA, an ‘ambitious’ piece of legislation enacted ‘in response to Congress’ perception that a majority of handicapped children in the United States ‘were either totally excluded from schools or [were] sitting idly in regular classrooms awaiting the time when they were old enough to drop out.’ ... A substantive standard not focused on student progress ... would do little to remedy the pervasive and tragic academic stagnation that prompted Congress to act.”**

*Chief Justice John Roberts’ majority opinion, Andrew F. v. Douglas County School District.*

---

## Concluding Thoughts

---

Districts, schools, vendors, and educators should look at these laws not as a checklist for merely achieving compliance. Instead, these laws can be seen as guardrails to help them achieve their own stated goals of providing all students with educational experiences that will prepare them for life's full range of challenges and opportunities. By being intentional, explicit, and proactive in visioning, designing, procuring, using, and evaluating ed tech purchases, policy makers and education leaders can ensure that new technology will advance modern civil rights movements rather than widening entrenched inequalities.