



# *Inclusive Technology*

in Modern Learning Environments

## A Collaborative Local Action Primer



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

However, when educational technology (ed tech) initiatives and products are not conceived, designed, procured, implemented, or 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, inclusive conversations, thoughtful action, and unwavering commitment to diversity, 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](#) that discusses key considerations in conceiving, procuring, and implementing education technology inclusively. Knowing that conditions on the ground vary, our groups came together to identify key local stakeholders who must be at the table to discuss how technology can best meet the needs of all learners, and to determine key questions for those stakeholders to consider and discuss. Because smaller districts may not have certain leadership structures and positions in place, and, due to limited resources, may have one person fulfilling multiple functions, we’ve also described the roles of key stakeholders involved in the procurement process to better inform who should be at the table for respective discussions.

Stakeholders are grouped in three categories: **school and district administrators**, **community and industry partners**, and **educators**. The different phases of the technology procurement, use, and evaluation process identified include:



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

Ensuring that the vision—which drives product selection, procurement, and resource allocation decisions related to implementation—is inclusive of all students’ needs (including those who are historically underrepresented, those in rural schools and districts, and those with unique learning differences).



### **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 are at the forefront when acquiring technology.



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

Ensuring educator and system capacity to use the product efficiently and inclusively.



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

Ensuring continuous learning and improvement through measurement and data informed decision making.

# Phase 1: *Vision*

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

## **At the Table:**

- **Assistive technology directors:** Align assistive technology and general education technology
- **Chief technology officers (CTOs):** Evaluate the capacity of technology to achieve system goals
- **School business leaders:** Identify the resources to address the vision
- **Special ed directors:** Ensure that all steps are in alignment with the needs of students with disabilities
- **Superintendents and school boards:** Outline the learning vision behind the use of technology
- **Other stakeholders such as parents, caregivers, students, and community members:** Inform, validate, and defend the decision
- **Legal representatives:** Note whether the vision is legally compliant with students' civil rights
- **Other staff:** Depending on the students and context, a literacy specialist, occupational, physical, and speech therapists, etc., may be needed
- **Educators/teacher leaders:** Evaluate the plan against the daily reality of their classrooms
- **ELL and other teachers:** Speak to the intersection of disability and other exceptionalities

## **On the Agenda: Guiding Questions**

1. How are we prioritizing the needs of traditionally marginalized students in our vision for learning?
2. What are we legally responsible for providing? How can we go beyond the minimum?
3. How are we being explicit about inclusiveness in our expenditure and initiative? How are we meeting the needs of subgroups (e.g., students of color, students with learning differences, etc.)?
4. Are we allocating resources not only for the tech itself, but also for professional development and other expenditures necessary to implement the tech inclusively?
5. What are the pots of money used to fund tech expenditures, and do they support a cohesive vision?



# Phase 2: *Design*

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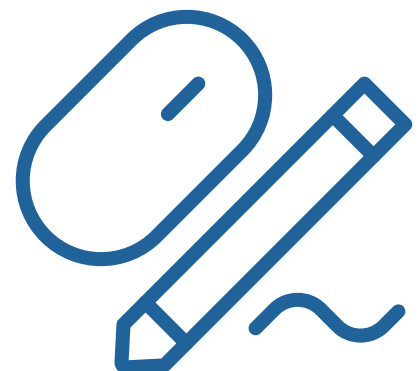
**The product developers design, guide, communicate, and collaborate to develop products that meet the educational needs of *all* learners.**

## **At the Table:**

- **Purchasers (district leaders, CTOs, etc.): Provide information on their vision, goals, and student needs**
- **Content Experts (researchers, interest groups, etc.): Provide feedback on how the ed tech and its proposed use align or don't align with best practices and research in special education**
- **Intermediaries: Work at the intersection of relationships and bridge communication gaps between the school and parents, caregivers, and the vendor (also help consider whole child needs)**
- **Users (parents, caregivers, and students): Test the ed tech product**
- **Vendors / Public Private Organizations: Create and design the ed tech product**
- **Educators / Teacher leaders: Inform the need for the ed tech products**

## **On the Agenda: Guiding Questions**

1. Who are we helping and how are we helping them? Is our product designed to effectively support the most disadvantaged learners?
2. Do we have a company-wide expectation and culture that emphasizes full accessibility? If not, what do we need to do to form that culture?
3. Do we have internal and external accessibility policies that safeguard and communicate our values?
4. Is our product abiding by accessibility standards (Web Content Accessibility Guidelines, Section 508 of the Rehabilitation Act, etc.)?
5. Does our product consider learner variability (seeing potential problems with the design, not with the learner)?
6. How are we engaging end users (i.e., learners with disabilities) in the conversation to inform how effectively the ed tech is serving all learners?
7. Are individuals with disabilities employed and embedded in the product design process?



# Phase 3: *Procurement*

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

## **At the Table:**

- **Communications teams:** Help communicate the roll-out of the initiative to families and the broader public
- **Disability, ELL, district, and other representatives:** Speak to intersection of disability and other issues
- **Ed tech teams:** Weigh in on the technical capacity of the district and existing systems
- **Legal representatives:** Ensure legal compliance with regards to students' civil rights
- **Professional development providers:** Ensure that staff are effectively trained to use ed tech to maximize learning benefits
- **School business leaders:** Work with the business office to draft and advance the RFP, go through the procurement process, and ensure that accessibility becomes an institutional expectation
- **Superintendents and school boards:** Approve and oversee the final decision
- **Individuals with expertise on disability issues:** Inform alignment between initiatives and research
- **Vendor representatives:** Place the bid, inform product capacity, and ask clarifying questions
- **Curriculum developers (at the district level as well as lead teachers at the school):** Eventually integrate ed tech into the school's instructional design
- **Local school staff (i.e., special and general ed teachers, etc.):** Advocate for solutions that are practical and useful

## **On the Agenda: Guiding Questions**

1. How does this procurement process align with the school/district strategic plan?
2. Is there a clear educational rationale for the purchase of the product?
3. Does the product address the equitable needs of all learners?
4. How does the product address different levels of learning needs, including skills and dispositions and higher-level learning needs?





# Phase 3: *Procurement*

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## On the Agenda: Guiding Questions *(continued)*

5. Has the purchase of the product been thoroughly vetted through a local review process that includes considerations of how students with disabilities are served (i.e., pedagogical and physical accessibility)? Is there a quality material review process?
6. Does the product follow the district's data privacy policy? Does the security measures in place interfere with the accessibility provisions of the product?
7. Has the district piloted this specific product to make sure it works for different learners?
8. Does the procurement plan include provisions for sustainability?



# Phase 4: *Use*

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

## **At the Table:**

- **CTOs: Approve the tech (assess bandwidth needs)**
- **Instructional coaches: Assist educators on the best ways to leverage the tech**
- **IT support personnel: Help provide technical support to educators**
- **School leaders: Help inform PD and other needs that impact instruction**
- **Students and families: Help inform the use of the product**
- **Curriculum directors: Align curriculum needs with ed tech capacity**
- **Lead teachers and/or pilot phase teachers: Plan for educator needs in implementation**
- **Library and media specialist: Help bridge ed tech implementation and PD for teachers**
- **Technology integrators: Work more closely with teachers on the integration of ed tech at the classroom level**

## **On the Agenda: Guiding Questions**

1. Has there been a pilot phase to ensure that the product is effective for all learners?
2. For whom do the features matter and under what conditions? Can teachers convey the use and benefits effectively?
3. How is successful use/deployment of the product measured?
4. What is needed in terms of knowledge and skills of educators along with the technical capacity/IT support to use the tool or curriculum successfully?
5. Have teachers developed sufficient expertise on Universal Design for Learning features and accessibility implementation (assessment, pedagogy, technology use, etc.) for both the tech and the associated materials?
6. What is the expected timeline to evaluate effectiveness?
7. What is the expected timeline for scaling implementation of the ed tech tool to other classrooms/schools/etc.?



# Phase 5: *Continuous Improvement*

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**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.**

## **At the Table:**

- **Curriculum directors:** Align curriculum needs with ed tech capacity
- **CTOs:** Approve the ed tech (assess bandwidth needs)
- **Instructional coaches:** Assist teachers on the best ways to leverage ed tech
- **IT support personnel:** Help provide technical support
- **School leaders:** Help inform PD and other needs that impact instruction
- **PTA and funders:** Help ensure long-term sustainability of the initiative
- **Students and families:** Help inform long-term use
- **Lead teachers and/or pilot phase teachers:** Reflect on challenges/successes and plan next phase of implementation
- **Library and media specialists:** Help bridge tech implementation
- **Technology integrators:** Work more closely with teachers on the integration of tech at the classroom level

## **On the Agenda: Guiding Questions**

1. What benefits have resulted from the effort (i.e., academic growth, engagement, etc.)?
2. What does the data show us about the outcomes among different types of learners?
3. Were there unanticipated challenges in implementation that can help inform future purchases and work?
4. How are we pursuing funding (fundraising, etc.) to sustain programs and deployments we found effective?
5. What investments in professional development are needed to support future successful implementations?

