Technology has become a vital component of our education system. It can provide personalized learning, enable access to education when in-person learning is not feasible, increase opportunities for deeper and expanded learning, and broaden the range of available courses and social and emotional supports beyond those offered locally.

However as schools were asked to implement distance learning programs with little preparation or support during the pandemic, existing disparities in access to technology, digital literacy, and quality of digital tools were brought into sharp focus. Many schools continue to struggle to provide high-speed internet access and culturally and contextually relevant software that engages and meets the needs of individual students. At the same time, education technology has become one of the fastest-growing global industries, with students and teachers accessing hundreds of unique tech products and services in classrooms every year.

Against this backdrop, district leaders face numerous challenges when making decisions about technology. Financial resources are limited, yet the options are nearly infinite. Few products are backed by empirical research, so district leaders must make decisions without evidence of efficacy or impact. Ensuring the widespread, impactful, and long-term use of new technologies by educators, students, and families can be daunting. Despite these challenges, district leaders must design and implement technology initiatives that benefit their students and promote equitable access.

The framework presented here was designed to assist district leaders in making informed decisions around the adoption and effective use of technology in their schools. It focuses on three critical phases of technology integration: selection, infrastructure, and implementation. Throughout, we consider how equity and evaluation inform the process.
Leaders who effectively leverage technology:

- Select technology that serves meaningful purposes for students in equitable ways.
- Design infrastructures that integrate new technologies with existing systems and provide privacy, security, and equitable access and use.
- Develop implementation plans to ensure that teachers, staff, leaders, students, and families equitably and effectively use technology.

Equity

There is not a one-size-fits-all approach to leveraging technology for student success. District leaders must be deliberate, strategic, and transparent as they adopt new technologies. At a minimum, district leaders need to ensure equitable access to high-speed internet, high-quality devices, and digital tools. Additionally, digital content should be culturally and contextually relevant, engaging, and meeting the needs of all students. Educators, students, and families need meaningful opportunities for learning about technology; ongoing supports to address their individual needs; and appropriate accommodations to ensure successful implementation.

Evaluation

To make the most of education technology, it’s important for leaders to regularly assess how well a technology product is achieving its goals. The decision to integrate a new technology into the education system should be driven by a clear understanding of its benefits and how it addresses a pressing need. Equally important, leaders have the responsibility to remove existing technologies that are no longer serving a useful purpose. To achieve this, district leaders should establish clear goals for technology implementation and articulate success criteria. By doing so, decision makers can better evaluate the efficacy of new technologies and refine the suite of digital tools in use over time.
Leveraging technology for student success requires a systematic and iterative approach that begins with a clear vision of how technology can support educational goals. This starts with learners and educators sharing their most pressing needs and exploring how technology can equitably address these needs. For example, technology can be effectively leveraged to improve communication, collaboration, personalization, self-directed learning, timely data for decision making, and engagement.

Selection extends beyond adopting new technologies. District leaders should regularly review their existing suite of technologies and assess which to retain and which to eliminate. Establishing a routine evaluation process for current software, hardware, support systems, and approved uses of technology can help leaders make informed decisions before investing in new purchases. By doing so, leaders can ensure that they are using resources effectively and efficiently to achieve their goals for student success.

QUESTIONS TO ASK

• What pressing needs of our learners and educators will this technology meet? Which existing technologies are no longer serving a meaningful purpose in our system?

• Are any members of our community not benefiting from our current suite of technologies? Can we add new technologies, remove existing ones, or reform practices to better meet their needs?

• What goals will be achieved by adopting or retaining this technology? How will we assess whether our implementation of technology is successful?
To effectively support the integration of new technologies, district leaders must design infrastructure that ensures privacy, security, and equitable access and use for educators, learners, and families. This requires a holistic approach that considers both technical supports (e.g., software, hardware, and internet access) and nontechnical supports (professional development, resources, and learning communities).

No piece of education technology functions in a silo. The suite of technology products and services an education system employs should be regularly evaluated as an integrated whole to ensure that they are working together effectively to support the goals of the system. By reviewing and updating technology infrastructure as technology use evolves, district leaders can ensure that their systems are able to adapt to meet the changing needs of learners and educators.

QUESTIONS TO ASK

• What are the current roadblocks to integrating new technologies? What changes are needed to overcome these roadblocks and ensure successful implementation?

• How can existing systems be leveraged to ensure equitable access to technology? Whose participation is necessary for successful adoption and implementation?

• Does the current infrastructure adequately support the existing suite of technologies? How can it be improved to support the adoption of new technologies?
To successfully implement a new technology initiative in an education system, it’s important to ensure that all users have the knowledge and resources they need. This includes understanding how to use the technology, why it’s important, and how to access ongoing support as they integrate it into their existing practices.

Implementation involves initial and continual learning opportunities for educators, learners, and families in a variety of formats. Learning opportunities should promote uptake of the new technology and sustained, effective, and equitable use of the technology to support education goals.

Implementation is not a one-time enactment of adoption or support. Rather, it should be a program of continuous discovery, learning, and improvement throughout the life of the technology within the education system. The process of implementation should also inform selection and infrastructure efforts.

**QUESTIONS TO ASK**

- How can we better support educators, learners, and families in adopting new technologies? What resources and training are necessary to deepen understanding and facilitate effective use of the digital tools we’ve chosen to implement?

- Are there any disparities in technology adoption and usage across our learning community? What measures can we take to promote greater uptake and ensure equitable access?

- Are we seeing positive results in relation to our goals? What obstacles need to be overcome, and what support systems can be put in place to facilitate effective use of this technology? Should we continue to invest in this technology or consider alternatives?
Relevant Resources


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