



Hybrid AI to support student learning

Enhancing accessibility and inclusivity while prioritizing safety and security

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Artificial Intelligence (AI) is providing powerful new ways to advance accessibility and inclusivity for all students. From making learning content more accessible to providing new ways of communicating, AI can support educators both in anticipating roadblocks and providing resources to minimize them.

Practical applications of AI in the classroom

When combined with the Universal Design for Learning (UDL) guidelines, AI expands opportunities for all students to engage in learning more efficiently and effectively.

CAST (Center for Applied Special Technology) provides key strategies for how AI and UDL can work together to improve:

- **Accessibility** – Ensuring educational materials are accessible, such as generating automated, accurate captions for video content or using multiple modalities to engage with content.
- **Flexibility** – Adjusting content difficulty, pacing, and style in real time, matching individual student needs rather than providing static content.
- **Inclusivity** – Creating an environment where every learner feels valued, no matter their differences.
- **Assistive Intelligence** – Helping students more quickly understand, process, and engage with information using AI-driven assistive technology and educational tools.



New tools to enhance learning

Innovative AI applications, powered by AI PCs and AI infrastructure are allowing educators to put these elements into practice by expanding the possibilities available to students and educators. From apps that recognize speech patterns to enable clearer communication to platforms that unlock access to digital content for people through adaptive controls, these tools are changing the ways in which we engage with content as well as with one another.

- **Voiceitt** – This AI-based app enables people with non-standard speech to communicate using their voice. It uses machine learning to recognize unique speech patterns, translating them into standard speech or text to facilitate in-person conversations and connection
- **Cephable** – This on-device AI software platform allows users to create and engage with digital content through adaptive inputs such as voice commands, facial expressions, and head movements.

Addressing data privacy through Hybrid AI

As AI tools become more prevalent in education, it is essential that we focus on data privacy and security. Communication and accessibility platforms often collect significant amounts of user information, including text, audio, and video, raising important questions about what data is being gathered, where it is stored, and who has access to it.

Implementing a hybrid AI approach to strategically use personal, enterprise, and public systems to run workloads where they make the most sense gives K-12 schools the flexibility to use powerful AI tools while maintaining greater control over privacy, security, and accessibility:

- **Personal AI** – Operates on personal smart devices or edge devices and is accessible only to one user.
- **Enterprise AI** – Resides within the district or institutional enterprise infrastructure and is accessible only to a group.
- **Public AI** – Runs on the cloud and is accessible to anyone.

Hybrid AI combines the features of personal, enterprise, and public AI, enabling schools and districts to build customized AI tools, agents, and learning solutions tailored to their unique educational goals. Sensitive student information, including voice, video, or individualized learning data, can remain within personal or enterprise AI environments, while public AI can support work involving publicly available information.

By balancing innovation with responsible data practices, hybrid AI creates new opportunities for more inclusive, personalized, and secure learning experiences. Schools must carefully evaluate which environment or combination of environments is appropriate for different types of data to ensure that AI is used responsibly in educational settings.



Infrastructure flexibility that grows with you

Hybrid AI gives school districts a flexible path to innovation that balances accessibility, inclusion, privacy, and security as needs evolve over time. By thoughtfully blending personal, enterprise, and public AI environments, districts can build, buy, or blend AI tools that support both educational goals and responsible data practices. Most importantly, hybrid AI enables schools to embrace innovation while protecting the trust that students, families, and educators depend on. Learn more about [hybrid AI solutions](#).



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A career educator, Dr. Tara Natrass currently serves as Chief Innovation Strategist, Education at Lenovo, focusing on creating transformational learning experiences through innovative programs, professional learning, redefining teacher roles and responsibilities, and emerging technologies. Tara spent over 20 years teaching and leading in school districts, most recently as Assistant Superintendent for Teaching and Learning for Arlington Public Schools (VA) and then transitioned to consultative roles as a Chief Innovation Strategist at Dell Technologies and Managing Director of Innovation Strategy at ISTE+ASCD. At ISTE+ASCD, Tara led teams focused on AI strategy, higher education, and professional learning.

Tara has actively supported educators in realizing safe and responsible use of AI including leading AI Task Forces for state departments of education and districts while also serving on the steering and advisory committees for Teach AI and the EdSafeAI Alliance. She was recognized as one of the leading Women in AI in EDU by ASU+GSV.

Tara earned a doctorate in Education Leadership and Policy from Vanderbilt University.

