

A Buyer's Guide to Education Connectivity Tools for K-12 and Higher Ed



Technology isn't just a tool for improving the overall classroom experience. It also enables institutions and teachers to better serve individual students, using interactive and personal devices to customize learning on a 1-to-1 level.

Today's K-12 and college students grew up with personal technology in their hands, so they already have the fluency needed to make use of these solutions during their educational journey. School districts across the country have given the green light to technologies that support this digital form of learning, primarily through the adoption of tablet devices in K-12 classrooms.

In both K-12 and college settings, online education portals are used to facilitate discussions, manage assignments, and distribute reading materials. These innovations have enabled the modern school experience to make great strides in serving all students and raising the standard for education, but they represent only a partial effort to build a 21st-century learning infrastructure.

The classroom of the future needs to embrace integrated technologies that improve student connectivity both throughout the school day and once they go home. A combination of collaboration and communication tools can support learning for every student while increasing engagement. These technologies can also simplify tedious aspects of the teaching experience, such as grade management and recordkeeping, allowing educators to focus their efforts on supporting student learning.

A true digital learning environment isn't bound by the brick walls of a school or university campus. It should exist everywhere students can find a broadband connection. Most schools already have some of the components of this learning environment in place, but continued innovation is needed to build a comprehensive experience that supports students both at school and at home.

NEC offers every kind of technology educators need to create this digital learning environment in their classrooms. Here's an overview of the solutions that will build a seamless experience for teachers and students alike.

Laser Projectors

Projector technology has already been used in schools for decades. But laser projection offers a more sophisticated solution that provides a better educational experience while simplifying connectivity and usage for presenters.

The primary benefits of laser projection include better colors, higher contrast and resolution, and the ability to scale to incredible sizes. In a university lecture hall serving hundreds of students, laser projection can create a beautiful, crystal-clear image that lecturers can use as an aid throughout their presentation, and the quality of its projection will help keep students engaged with the material. These laser projectors can also be used in K-12 theaters, gymnasiums, or other common areas where students gather for presentations or events.

Laser projectors also provide benefits to institutions with respect to their cost-effectiveness and energy efficiency. Among these benefits include:

- Lower maintenance costs
- No expensive lamps to replace, which saves organizations roughly \$2,000 per year
- Reduced energy consumption and thermal emission
- Longer device life span

With the Quick Start feature built into NEC's laser projectors, there's no waiting period while the projector warms up and loads its software. These devices can be turned on and off in an instant, serving as a time-saving solution that keeps students engaged. It also doesn't take long for these projectors to save school money in the long run: NEC research shows that the higher upfront cost of a laser projector is paid for by energy and maintenance savings after only two years of use.

Collaboration Tools

High-quality collaboration tools are a cornerstone of any digital learning environment, enabling students to work on group projects both in class and at home.

But this seamless connectivity isn't just about the ability to collaborate over the internet. Teachers are now able to easily manage their oversight of an entire classroom while providing support and feedback through the platform of their choice.

Three such collaboration tools are easy to integrate with NEC technology and have been proven to support digital learning on several critical levels.

NEC Collaboration powered by ThinkHub

Designed to support and enhance brainstorming sessions, ThinkHub is an easy-to-integrate collaboration tool that works with the technology, content and solutions you're already using in your school. ThinkHub's mission is to improve productivity in brainstorming and collaboration sessions by minimizing setup time, facilitating communication, and optimizing teacher support for students.

While students are using ThinkHub to work on projects and presentations with classmates, teachers can actively monitor each individual's participation by having students share their device screen to the ThinkHub Canvas. Teachers can provide live annotations and notes and notify students of these changes. They can also use ThinkHub as a tool for housing and sharing many types of content, including videos, PDFs and images.

Thanks to NEC Collaboration powered by ThinkHub, students are able to learn and engage through the intuitive touchscreen behaviors they have grown accustomed to through their own personal technology. And because they're able to work in small groups, students can take a more active role in guiding their own education, while still benefitting from the teacher's oversight.

Mosaic

Mosaic's software features a suite of tools that enable collaboration, including a limitless canvas for drawing and designing, as well as features that enables image and file sharing, real-time document editing, and communication through online chat and video conferencing.

The company behind Mosaic, DisplayNote, reports that users of this software solution see a 63 percent uptick in productivity. Over the course of a school year, that's a lot of additional learning time for students making regular use of this technology.

In addition to being Windows-compliant, Mosaic is also compatible with Raspberry Pi, making it easy to integrate into an educational institution's mobile network. Mosaic is a versatile component of this digital learning environment, connecting easily with projectors, displays, desktop devices, and other educational technology. If you're using Mosaic in conjunction with Raspberry Pi, you can be confident that NEC's wide range of education solutions will blend seamlessly with your digital network.

Touch Surface

The NEC Touch Surface is an interactive whiteboard that brings digital functionality to a traditional whiteboard experience. Although it looks like a traditional whiteboard and can even be used with dry erase markers, the NEC Touch Surface is a software- and hardware-agnostic solution that offers multi-purpose functionality within any K-12 or college classroom.

The Touch Surface is easy to set up, requiring no additional drivers or software. It's a simple plug-and-play solution that can integrate well in college classrooms where a new teacher is coming into the room every hour. Compatible with both Windows and Mac software, the NEC Touch Surface requires no hardware-specific training, enabling teachers and presenters to quickly use it without wasting valuable class time.

OPS Integrated Digital Signage

Digital signage offers a number of applications within a digital learning environment. In a physical institution, these signs can be used to support classroom presentations, enable small group work and student collaborations, and facilitate news and other communications from the administration to the larger student body.

In addition to their ease-of-use and simple connectivity, NEC's digital signage solutions are also modular in design, allowing institutions to adjust hardware and features based on changing needs in computing technology, signal distribution, wireless data transmission, and more.

NEC's digital signage solutions are based on "open pluggable specification," an Intel specification that has become the industry standard. This means that NEC's solutions are easily integrated into a larger digital environment, requiring minimal setup time or regular maintenance.

Widescreen Desktop Monitors

The traditional desktop computer isn't obsolete in the world of education, but its role has changed. In fact, desktop computers offer increased value to students and educators when integrated into a comprehensive digital learning environment.

Computer labs in schools facilitate student collaboration while encouraging hands-on learning. Additionally, many NEC display monitors include HDMI inputs in which a Raspberry Pi Model B can be easily added to turn traditional desktop computers into high-powered workstations featuring Mathematica and other pre-loaded educational software.

Today's widescreen monitors are built with energy-efficient technology that offers better picture quality and higher resolution than their predecessors. This attractive display will help keep students engaged whether they're doing homework, working on a group project, or following along with a digital presentation.

Conclusion

Educators aren't afraid of bringing technology into the classroom, and they shouldn't be. No matter what kind of solution they need, NEC's hardware and solutions aim to serve teachers and students by being as intuitive and tech-agnostic as possible.

Today's K-12 and college environments rely on this technology to maintain student attention, increase engagement, and support a high-caliber educational experience. If your institution is eager to adopt new technologies but doesn't know where to start, use this buyer's guide to help you navigate the ever-expanding opportunities to build and enrich your digital learning environment.