

6 Key Elements of a Modern Digital Learning Ecosystem



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Technology is a fundamental component of modern teaching and learning. Students are learning on digital devices that empower them to access information online, collaborate with their peers, and create projects that demonstrate their learning—while digital literacy and citizenship have become essential parts of the K-12 curriculum.

To support digital learning effectively, educators need the right tools. For instance, student devices must be equipped with software that protects student data and the school network, as well as tools that make it easy to manage classrooms and devices.

Successful digital learning requires an ecosystem of software working together to support the safe and productive use of technology for education. A modern digital learning ecosystem should strive to position schools for success and protect their edtech investment. **Here are six key elements to consider.**



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Web filtering

The Children's Internet Protection Act (CIPA) requires schools that apply for E-Rate discounts to certify they're using "technology protection measures" to block access to online content considered harmful to minors. An effective web filtering solution fulfills this requirement and is foundational to successful digital learning.

A high-quality school web filter should...

- Provide the same user experience from any device or location to support remote learning and BYOD initiatives.
- Give administrators very fine-tuned control over students' use of the internet for learning.
- Handle SSL decryption without bogging down the network.
- Empower teachers to control the settings, so they don't have to bother IT with requests.
- Filter website content in multiple languages.



Student safeguarding

Keeping students safe while they're online requires more than just blocking harmful content. It also ensures safe interactions between students.

Nearly half (46%) of youth ages 13-17 have been bullied or harassed online, [according to Pew Research](#). Student anxiety and depression have skyrocketed since the start of the pandemic, and nearly 20% of high school students say they have seriously thought about suicide, the National Alliance on Mental Illness [reports](#).

Software that monitors students' online activity and sends real-time alerts to administrators when certain trigger words are detected—indicating possible bullying or threats of harm to themselves or others—can help safeguard students and prevent trauma or tragedies from occurring.

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Classroom management

To ensure productive digital learning, teachers need an easy way to manage students' use of digital devices.

Teachers need to be able to see what students are doing on their devices, keep them focused on a lesson, share someone's screen with the entire class, blank their screen to get students' attention, and message students discretely to offer help or get them back on task. An effective classroom management program can do all of these things and is an invaluable tool to support high-quality digital learning.

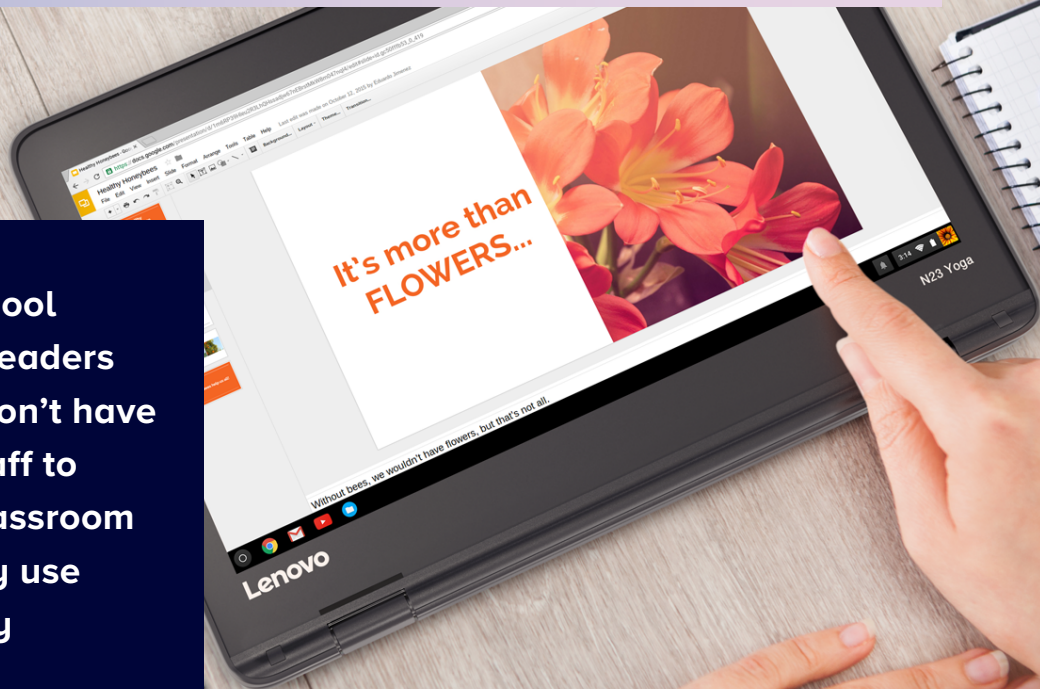


Mobile device management

According to the Consortium for School Networking's annual ["State of EdTech Leadership" survey](#), 52% of school district IT leaders say they don't have enough staff to support classroom technology use adequately.

Mobile device management (MDM) software can help reduce this burden by giving IT leaders an easy way to automatically inventory all software and hardware assets to ensure optimal usage and compliance. MDM allows IT admins to monitor software, capture device insights, assess security posture and understand device usage across their entire device fleet.

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Cybersecurity

More than 2.6 million U.S. students were affected by ransomware attacks from 2018 to 2021, the [Government Accountability Office \(GAO\) reports](#). Network security breaches have resulted in lost money and instructional time for schools nationwide, with recovery time ranging from two to nine months.

To guard against cyberattacks, schools need strong endpoint protection on all devices used for learning. A modern, easy-to-manage endpoint security platform can predict, stop, and remediate the effects of malware with autonomous threat responses that trigger protective actions in real time, as well as one-click recovery that reverses unauthorized changes and restores any data affected by an attack.



Device optimization

Digital learning can only happen if student and teacher devices are running smoothly. Digital downtime threatens learning and productivity, but it can be minimized with the help of software that assesses, predicts, and prevents device performance issues.

Using advanced AI technology, device optimization software can monitor factors such as available storage, battery life, potential machine failures, and apps that are affecting performance. IT staff receive real-time system alerts so they can be proactive in addressing these issues, resulting in much less downtime—and more focus on student learning.

How Lenovo can help

Lenovo's comprehensive edtech portfolio contains all the elements needed to create an effective digital learning ecosystem. Schools can purchase Lenovo devices and choose from software bundles that address these key areas—streamlining the procurement process and making it simple and affordable to support digital transformation.

Visit lenovosoftware.com to learn more, schedule a personalized demo, or request a quote.

Streamline edtech purchasing

Access Lenovo's ecosystem of software solutions and partnerships purpose built for the education space. Choose from any combined bundle to best fit your school's needs.



One stop shop

End-to-end services and support from customer-focused experts.








Maximize budgets

Leading edtech solutions bundled at an affordable price for schools.



Monitor and assess

Evolving feature sets to support unique needs and environments.

	Bundle 1	Bundle 2	Bundle 3
 <ul style="list-style-type: none"> Pioneer of classroom management software Robust feature set maximizes teaching time Host in the cloud, locally, or both Supports mixed device environments 	✓	✓	✓
 <ul style="list-style-type: none"> Cloud-based, AI-driven web filtering Documentation with built-in reporting Categorization available in over 40 languages Real-time keyword monitoring 	✓	✓	✓
 <ul style="list-style-type: none"> See all devices, on or off network Data collection for usage and inventory management Customizable dashboard and reporting 365 days of historical logs 		✓	✓
 <ul style="list-style-type: none"> EPP solution Easy to deploy and manage Predict, stop, and correct effects of attacks One-click remediation and recovery 			✓
 <ul style="list-style-type: none"> Monitor, predict, and prevent device issues Uses AI to monitor school and district patterns Less device downtime and reduced IT support costs User experience scoring and asset optimization insights 			✓