



Planning and Implementation Considerations for BYOD and 1:1 Technology Models

Given the potential of technology to enhance learning and teaching, many districts in Massachusetts are working towards ensuring that every student has access to a mobile device, such as a laptop, tablet, or netbook. Districts generally have two options: (1) a one to one model (1:1), in which school-owned devices are loaned to all students, which may or may not be allowed home; or (2) a “bring your own device” model (BYOD), in which students are encouraged to bring a personal device to and from school, while providing a school-owned device to students who choose not to bring a personal device. This guidance provides information to help educators plan for learning environments that feature these approaches. Legal FAQs are also provided.

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Introduction

Given the potential of technology to enhance learning and teaching, many districts in Massachusetts are working towards ensuring that every student has access to a mobile device, such as a laptop, tablet, or netbook. Districts generally have two options: (1) a one to one model (1:1), in which school-owned devices are loaned to all students, which may or may not be allowed home; or (2) a “bring your own device” model (BYOD), in which students are encouraged to bring a personal device to and from school, while providing a school-owned device to students who choose not to bring a personal device. This guidance provides information to help educators plan for learning environments that feature these approaches.¹ Legal FAQs are also provided.

This guidance provides information to help educators plan for a learning environment in which every student used a device for learning and instruction.

Because of the significant investment of funds and other resources required to make the shift to BYOD/1:1, technology should be an extension of existing plans for improving learning and teaching (see **Planning**).

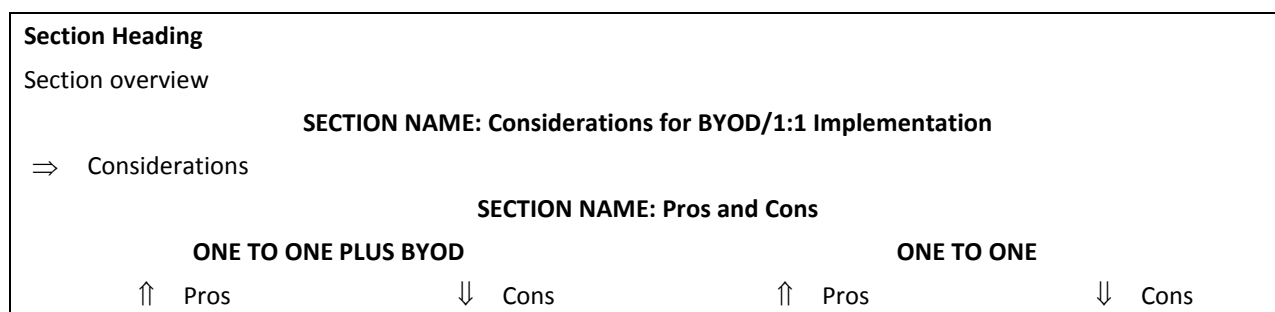
Implementing BYOD/1:1 successfully require a robust infrastructure. Key elements include affordable, high-speed broadband (external infrastructure) and Wi-Fi and devices (internal infrastructure). Districts must consider how they will sustain that infrastructure over time. There is a general expectation that students (and educators) use devices to access the school’s network, applications, and services, and be subject to the terms of the school’s acceptable use policy (AUP; sometimes called a responsible use policy or RUP). Districts must determine whether they need new policies to govern the use of devices in school, whether personal or school-owned (see **Management and Support**).

When carefully designed and thoughtfully applied, devices can amplify the impact of effective teaching practices. And the roles of classroom teachers and librarians, students, and parents/guardians will gradually shift as the devices enable new types of learning experiences. However, educators need the knowledge, skills, and support to take full advantage of the technology (see **Learning and Teaching**).

Although virtually all students have access to technology at school, access to devices and high-speed broadband outside the school day in Massachusetts varies along the lines of geography and family income. If technology is integral to reaching the district’s educational goals, it should identify strategies to narrow gaps (see **Digital Equity**).

Organization of this Document

This document has four primary sections: *Planning, Management and Support, Learning and Teaching, and Digital Equity*. Except for *Planning*, each of the remaining three sections contains the following parts:



¹ The mix of BYOD/1:1 will vary based on the grade levels served by particular school(s), infrastructure, capacity to provide technical support and professional development, and student learning objectives.

Planning

Initiatives that use technology as the starting point are rarely successful. Because of the significant investment of funds and other resources required to make the shift to BYOD/1:1, technology should be an extension of existing plans for improving learning and teaching. Districts should identify the educational goals they want to achieve, create a shared vision of the learning experiences they want to provide students to reach those goals, and only then consider how technology can support the enactment of that vision. The district’s vision for implementing BYOD/1:1 should be developed through a thoughtful process that incorporates stakeholder input.²

PLANNING: Considerations for BYOD/1:1 Implementation	
⇒	<p>Identify who needs to be on board from the beginning A cross-functional team should identify the problems to be solved and the outcomes to be achieved so that the purpose and priorities are clear to everyone, all points of view are represented, and different budgeting options are considered (also see Management and Support).</p>
⇒	<p>Know your community’s context Schools in Massachusetts are obligated to provide every student with a device if one is required for learning and teaching. If the district is considering allowing BYOD, it should determine what proportion of the student population might need a school-owned device. Understanding the types of devices students have access to at home is also important. Tools like Your Own Technology Survey can help districts gather information about technology use and availability outside of the school day. If the district intends to make devices available for purchase, it is worth understanding what price point is reasonable for parents/guardians to be able to afford devices for their children (see Digital Equity).</p>
⇒	<p>Engage the community early and often The district’s community engagement strategy should always tie back to its objectives for student learning. For example, while technology-enabled assessments may be an ancillary reason for technology, always lead with the benefits to students and teachers, and be able to articulate how the technology will be leveraged in the broader context of learning and teaching.</p>
⇒	<p>Let stakeholders see it in action Give your stakeholders opportunities to experience the technology in action so they understand what success looks like. Possible venues include community meetings, school committee presentations, and “tech nights” in which members of the community are invited to visit the school to see demonstrations of the technology, and try it out themselves. One Massachusetts district created a “classroom of the future” and invited staff to observe different uses of the devices under the guidance of skilled teachers.</p>
⇒	<p>Pilot, pilot, pilot Before committing to a schoolwide implementation, pilot your model before making it available to all students and teachers. Districts that have successfully implemented BYOD/1:1 usually start small by piloting the model in a subject area, grade level, or with one or a few classes (while doing system tests and providing ongoing technical support and professional development). The pilot must have clear goals and an agreed-upon set of parameters. Teachers should not be required to participate in the pilot. Those that do should be encouraged to try out different apps, leverage student creativity, and share success stories with peers.</p>

² “Stakeholders” means everyone with an interest in education: parents/guardians, students, and people in the community, as well as educators.

Management and Support

Implementing BYOD/1:1 successfully require a robust infrastructure. Key elements include affordable, high-speed broadband (external infrastructure) and Wi-Fi and devices (internal infrastructure). Districts must consider whether they need new policies to govern the use of devices in school. Finally, the initiative must have an achievable financial plan, including sustainable funding mechanisms and realistic forecasting and trending.

MANAGEMENT AND SUPPORT: Considerations for BYOD/1:1 Implementation	
⇒	<p>Budget for sustainability</p> <p>Consider how you will sustain your infrastructure over time without relying on repeated capital appropriations. While some elements of technology may be appropriately built into capital budgets (such as when school buildings are built or renovated), a substantial portion of technology costs are operating expenses.³ Some Massachusetts districts have switched from a multi-year procurement model to an overlapping lease model for devices. Others purchase devices for students to keep over multiple years, replenishing one or two grade levels every year. All students must be provided with a device if one is required for learning and teaching. This raises the question of how many loaner devices schools need to purchase, repair/replace, and replenish.</p>
⇒	<p>Plan for scalability</p> <p>The district’s plan for implementing, maintaining, and upgrading its technology infrastructure should align with the educational goals of each school. The plan should include an estimate of the amount of bandwidth needed for digital learning over three years. Drivers for network bandwidth are the number of devices schools will have (including personal devices for students and staff)⁴, how often the devices will be used, and what types of applications they will use (especially video and rich media).</p>
⇒	<p>Review your policies</p> <p>Districts considering BYOD/1:1 must identify whether they need new policies to govern the use of devices in school, and have a governance structure to handle emergent issues, including documentation of which decisions will be decided at the district level and which will be left to the discretion of school leaders and teachers. Districts may want to apply their policies to personal devices brought to school, even though the student may have applications on the device for purposes other than school. Moreover, districts must decide whether to extend these policies to off-campus use if students access the network remotely.</p>
⇒	<p>Safeguard student data</p> <p>In a BYOD/1:1 environment, devices travel throughout the school and the community. Districts are strongly encouraged to audit district policies, procedures, and systems with regard to the use of student data, either as a standalone audit or as an additional component of the annual financial audit most communities undergo. Districts should clarify the ownership of student work and/or data stored in the cloud and copyright policies as they apply to student and staff work (see Appendix B for more information).</p>
⇒	<p>Articulate a support strategy</p> <p>Whether the district provides IT support within the school, adopts a “managed services” model in which support is provided by an external vendor, leverages student tech support teams, or uses some combination of these approaches, it needs a clear strategy for supporting the devices. Considerations include whether the school will provide IT support for personal devices, leverage extended warranties, insurance, and the repair/replacement model (e.g., in-house, “depot” service, etc.).</p>

³ Phipps, R.A. & Wellman, J.V. (2001). *“Funding the ‘Infostructure.’*” Indianapolis, IN: Lumina Foundation.

⁴ Many schools experience a substantial increase in the number of personal devices after holiday breaks. On a daily basis, demands on the network typically increase at the beginning of class periods, when students log on to the network at the same time.

MANAGEMENT AND SUPPORT: Pros and Cons of Mobile Device Models	
ONE TO ONE PLUS BYOD	ONE TO ONE
<p>↑ Students are responsible for the use, care, and maintenance of their own devices and related peripherals.</p>	<p>↑ Pushing out new software and security updates can be done more efficiently, and technology staff know which software and security updates will work in a 1:1 environment.</p>
<p>↓ Issues such as charging stations and adaptors, printing options, and security of the devices, can be challenging in an environment with different types of devices.</p>	<p>↑ Technology staff only contend with one device in a 1:1 environment, giving them the opportunity to develop expertise in supporting the devices.</p>
<p>↓ Schools must consider support, information and training that will be provided to parents/guardians to be good stewards of technology in the home.</p>	<p>↑ Loaners can be deployed with minimal disruption to learning because the students will know how to use the device.</p>
<p>↓ BYOD has implications for the negotiation of licenses for digital content, software, and applications required for school use.</p>	<p>↑ Charging stations can be standardized in a 1:1 environment.</p>
<p>↓ Students bringing in their own devices to school may increase the possibility of theft.</p>	<p>↑ Some districts report that it is easier to administer online assessments in a 1:1 environment.</p>
<p>↓ The need to integrate a variety of devices will increase the load on the district's existing infrastructure.</p>	<p>↓ It can be challenging to fund 1:1 on a large scale.</p>
<p>↓ More devices mean increased vulnerability to cyberattacks and other security threats, and BYOD could make it difficult to filter internet content as required by law.</p>	
<p>↓ Devices have different levels of connectivity, which could limit students' access to school resources, depending on the infrastructure.</p>	
<p>↓ Students might forget to bring their personal devices to school.</p>	

Learning and Teaching

When carefully planned and thoughtfully applied, devices can amplify the impact of effective teaching practices. The roles of classroom teachers and librarians, students, and parents/guardians will gradually shift as the devices enable new types of learning experiences. However, educators need the knowledge, skills, and support to take full advantage of the technology. Even teachers who are “digital natives”, for example, may have difficulty managing a classroom in which every student has a device.

LEARNING AND TEACHING: Considerations for BYOD/1:1 Implementation

- ⇒ **Encourage experimentation**
Teachers must feel that it is safe to take calculated risks and admit to and learn from mistakes, requiring a high degree of leadership support. Many principals in Massachusetts give teachers time to integrate the technology into their lessons and try out different applications. At least in the first year of the initiative, most principals did not require teachers to use specific applications; instead, they encouraged teachers to give feedback on what works for them.
- ⇒ **Provide ongoing opportunities for professional learning**
Provide educators opportunities, both formal and informal, to learn about the application of the technology to their teaching and to student learning. In general, schools that utilize technology well typically have strong normative cultures of disciplined collaboration aimed at specific and relevant goals that related to the learning needs of students even prior to adopting the technology.
- ⇒ **Model 21st century life and work**
According to the Department of Labor, 65 percent of today’s students will be employed in jobs that don’t exist yet. Across content areas, teachers should consider the types of activities scholars predict will be invaluable in 21st century society and work, including those that require critical thinking and problem solving; give students opportunities to form and collaborate across networks; include tasks that require the rapid learning of new skills on-demand; encourage initiative and creative thinking; develop students’ written and oral communication skills; and let students research, extract key information, and evaluate its credibility and utility.⁵
- ⇒ **Balance classroom management demands with the need for students to gain experience using technology**
Be clear about the outcomes of lessons/activities, then determine how (or whether) technology can effectively support it; plan the first lesson carefully and have backup activities in case things do not go as planned; consider the layout of the classroom; enlist the help of technically able students; select and practice using a small number of apps; and consider how the technology can enhance the learning of students with special educational needs.
- ⇒ **Emphasize digital citizenship**
Identify who will be responsible for teaching students about netiquette and internet safety in the classroom and beyond, and how it will be taught. A sound digital citizenship program includes scenarios, discussions, and interpretations of district policies and their applicability to devices, including managing one’s “digital footprint”, social media, cyberbullying, sexting, and financial literacy.
- ⇒ **Measure impact**
Set aside time in regular collaboration structures, such as grade level team meetings, common planning time, and professional development, for teachers to document and share lessons learned, especially in the first year or pilot phase of the initiative. This gives teachers a chance to measure implementation against their initial expectations and identify what can be done differently or better. Use free tools, such as Future Ready

⁵ Wagner, Tony (2016). *Tony Wagner’s seven survival skills as defined by business leaders in their own words*. Retrieved from <http://www.tonywagner.com/7-survival-skills>.

LEARNING AND TEACHING: Considerations for BYOD/1:1 Implementation

Schools' [Interactive Planning Dashboard](#) and the Friday Institute's [School Technology Needs Assessment](#) to collect data to plan and improve the use of technology. Finally, include student voices to understand how the initiative is working for them. They can play a role in selecting, piloting, and evaluating tools. Students will provide honest feedback about the extent to which they perceive technology raising their level of investment, engagement, and motivation in the educational process as a whole.

LEARNING AND TEACHING: Pros and Cons of Mobile Device Models	
ONE TO ONE PLUS BYOD	ONE TO ONE
<p>↑ Students are used to using personal devices outside the classroom, therefore making the transition from home to school more seamless and familiar in BYOD.</p>	<p>↑ As a community, teachers can leverage the common capabilities of the devices and share practices in a 1:1 environment.</p>
<p>↑ Students will be more productive and better able to demonstrate their learning (including on computer-based tests) with a device they already know how to use.</p>	<p>↑ Because teachers can count on the devices being in the classroom in a 1:1 environment, it is easier to plan and teach with the devices.</p>
<p>↑ Different technologies allow teachers and students to get creative with teaching and learning.</p>	<p>↑ Knowing that all students are using devices with the same functionality make it easier for teachers to plan instruction.</p>
<p>↑ Many students (or their parents/guardians) purchase devices that are more current, powerful, and flexible than those offered in schools.</p>	<p>↑ The district can be confident that the device(s) included in the model are capable of handling the learning and instruction tasks in which students may engage during the school day.</p>
<p>↓ In BYOD, students (or their parents) may not want to mix school work with personal information on their device or be subject to school policies governing device use.</p>	<p>↓ Some students may not be familiar with the school-provided device in a 1:1 environment.</p>
<p>↓ Students may be more easily distracted while working on their own devices.</p>	<p>↓ If all students are using the same apps and digital tools in a 1:1 environment, creativity may be limited, and “the tool” risks becoming the focus of the program, rather than the use of the tool.</p>
<p>↓ Applications may not be universal across operating systems and platforms.</p>	

Digital Equity

According to the [U.S. Department of Education's Office for Civil Rights](#), technology for students and teachers can impact the quality of education as well as students' ability to engage with digital resources outside the classroom. For those districts or schools where access to the internet or to other technology outside of school hours is a necessary or presumed aspect of what is expected from students, it is critical that students have access to necessary technology outside of school and that districts support students who do not have internet access at home, such as through providing wireless access via a Wi-Fi hotspot at school that is available outside of school hours (see [Frequently asked questions about BYOD/1:1 in Massachusetts](#)).

DIGITAL EQUITY: Considerations for BYOD/1:1 Implementation	
⇒	<p>Survey parents/guardians about internet connectivity at home Consider including a brief survey in back-to-school notifications to understand the level of internet access students have at home. Such a survey could serve multiple goals, including whether parents/guardians prefer communications from school via email, which will save printing and postage costs. The Consortium for School Networking (CoSN) suggests asking the local telecom provider to sponsor the survey.</p>
⇒	<p>Engage community organizations and local business organizations Consider hosting a community forum on the topic of digital equity. One outcome of the forum should be a list of safe places for students and parents/guardians to go to obtain free wireless access, and their hours of availability. Examples include libraries, municipal buildings, coffee shops, bookstores, community centers, museums, and places of worship. Several national chains have free wireless access, including Starbucks, McDonald's, Panera Bread, and Dunkin' Donuts.</p>
⇒	<p>Obtain and disseminate information about discounted programs offered by local providers Through the Office of Digital Learning, the Department provides a list of programs that may be offered to communities in Massachusetts. For example, Lifeline is a federal program that provides a monthly discount on landline or wireless phone service to eligible low-income households. EveryoneOn, a national nonprofit, offers free or \$9.95 home internet service through local providers, discounted devices (including \$150 tablets and \$199 laptops) and free computer and Internet courses. Consider hosting "tech nights" to help parents/guardians visit these websites, determine their eligibility for the program, find local companies that offer discounted services, and apply for discounts.</p>
⇒	<p>Provide offline options If the district provides devices for students to use at home, consider providing tasks and activities that do not require internet access. Whether this is possible depends on the capabilities of the device. For example, Chromebooks are designed to be used primarily while connected to the internet, while laptops and many tablets provide applications and storage that can be accessed offline.</p>

DIGITAL EQUITY: Pros and Cons of Mobile Device Models	
ONE TO ONE PLUS BYOD	ONE TO ONE
<p>↑ BYOD permits anytime, anywhere learning, especially if the district provides students with 24/7 access to school resources.</p>	<p>↑ In a 1:1 environment, students do not have to worry about devices being treated as a status symbol, because all of the devices have the same capabilities.</p>
<p>↑ Districts can provide devices for sale at different price points, and offer multiple payment methods (such as installment plans) that make it easier for parents/guardians to purchase a device from the school.</p>	<p>↑ Districts using lease-to-own programs can resell the devices or provide them to students at the end of the lease.</p>
<p>↑ Teachers can use certain apps to be more connected with students and parents/guardians.</p>	<p>↓ Some students will have access to devices at home, and others will not.</p>
<p>↓ If the district provides some students with a device to use while in school, but does not permit them to use them outside of school, those students will be at a disadvantage as compared to students who own their own devices.</p>	
<p>↓ Districts may consider BYOD because the cost of most devices will be passed on to students' parents/guardians. But even if flexible payment plans are available, the devices may be too expensive for some parents/guardians.</p>	
<p>↓ Students may treat the devices as a status symbol.</p>	

Appendix A: Frequently asked questions about BYOD/1:1 in Massachusetts

1. Are schools obligated to provide students with a device if one is required for learning and instruction?

Yes. Under Chapter 71, Section 48 of the Massachusetts General Laws, schools must purchase at public expense textbooks and other instructional materials and supplies intended for use and re-use over a period of years. Schools then in turn "loan" those instructional materials free of charge to students, who must return them at the end of the school year.⁶

Costly tools such as a tablet or other computer or graphing calculator fall in the category of instructional materials and supplies that, similar to textbooks, are intended for schools to purchase and use and re-use over a period of years. If such technology is required, schools may encourage each student to purchase these devices. Students are likely to do so because they may need those devices for future classes and other use outside of school. Schools are advised to be prepared to provide such devices free of charge to students whose families do not choose to buy them or cannot afford to do so. If students need such devices to complete out-of-school assignments, schools must provide that access.

2. Can schools provide devices to students based on certain criteria, such as family income or eligibility for free or reduced-price lunch?

No. Schools also may not require the student's parents/guardians to provide a reason for requesting a device. Schools must provide a device free of charge to students whose families do not choose to buy them or cannot afford to do so.

3. Must schools provide a student on a 504 accommodation plan or an individualized education program (IEP) with a device or assistive technology if such a plan requires it?

Yes. In these cases, the technology must be provided to the student regardless if the school is implementing BYOD/1:1. Assistive technology must be provided to students when necessary for students to receive a free and appropriate public education.⁷

4. Must schools ensure that all web content is accessible to students with disabilities?

Yes. Schools must ensure that all websites used in school comply with [ADA accessibility requirements](#).

5. What is the best practice for assigning homework that requires an internet connection?

Schools may assign homework that requires an internet connection as long as all students have equitable access to the internet. Schools should never assume that all students have internet access outside of school without first consulting with parents/guardians (see **Digital Equity**).

6. Can schools charge a fee for damaged, lost or stolen devices?

Yes. In general, schools may charge a fee to a student for the cost of replacing a damaged or lost textbook or other instructional materials provided by the school. The policy should mirror the school's existing policy for textbooks. Some schools advise students and parents that the school will not release the student's report card or other student records until the student pays for lost or damaged books. While such a message may get the family's attention, school officials should be aware that state and federal law guarantee parents the right to receive copies of their children's student records, including report cards. A public school cannot withhold student records, or a diploma, pending payment of fines or fees.

⁶ The exception to this general rule is consumable supplies - those supplies that typically are used up by students during the course of the year. Schools may ask students to supply their own notebooks or binders, papers, pencils and pens, and tissues. We advise schools to keep these types of consumable materials on hand so that students who do not have such supplies will not miss any instruction.

⁷ See [Access to Learning: Assistive Technology and Accessible Instructional Materials](#) for more information.

7. Can schools charge an insurance fee for students to use school-owned devices?

No. A school may not take deposits from students, require students to purchase insurance policies, or otherwise charge students in advance of loss or damage. The school itself may purchase an insurance policy to cover loss or damage that students and their families might refuse to pay. The school itself may purchase an insurance policy to cover loss or damage that students and their families might refuse to pay. Some schools advise students and parents that the school will not release the student's report card or other student records until the student pays for lost or damaged books. While such a message may get the family's attention, school officials should be aware that state and federal law guarantee parents the right to receive copies of their children's student records, including report cards. A public school cannot withhold student records, or a diploma, pending payment of fines or fees.

8. Can schools let students bring their personal devices to school in the absence of a schoolwide BYOD/1:1 model?

Yes, and schools may adopt a policy regarding student access to personal devices while in school. However, careful attention must be paid to equity. For example, it would be inequitable for a school to assign work that requires a device if not all students have access to one, or work that would put a student without a device at a disadvantage. If a device is required for learning and instruction, the school must provide one free of charge to such students.

9. Can schools provide different kinds of devices to students?

Yes; however, schools are advised to pay careful attention to the capabilities of different devices and ensure that all students have equitable access to learning and instruction, regardless of device. For example, not all devices support professional software programs or optical drives, and some devices work best when connected to the internet, such as Chromebooks or netbooks.

10. Do schools have access to digital information stored on a device owned by a student or a staff member? Can a school search student-or staff-owned devices?

It depends. In general, digital information stored on a personally owned device is the property of the owner. A school may prohibit a device from being brought to school if it contains digital information that violates school policies.

As a condition of allowing a device belonging to a student or staff member to access the school's network, applications, and services, the school can require users of the network to adhere to certain policies, which may include the school's right to search the device.

Schools must consider students' First and Fourth Amendment rights, as well as state law protecting students' rights to freedom of expression ([M.G.L. Ch. 71 Sec. 82](#)) when developing and implementing relevant policies. ESE recommends consulting with school or district counsel on these issues.

11. Are schools required to block or filter internet access to certain content on a device if the device is accessing the school's network?

Generally speaking, yes. The [Children's Internet Protection Act \(CIPA\)](#) was enacted by Congress in 2000 to address concerns about children's access to obscene or harmful content over the internet. CIPA imposes certain requirements on schools or libraries that receive discounts for internet access or internal connections through the E-rate program, a program that makes certain communications services and products more affordable for eligible schools and libraries. In early 2001, the FCC issued rules implementing CIPA and provided updates to those rules in 2011.

Schools subject to CIPA may not receive the discounts offered by the E-rate program unless they certify that they have an internet safety policy that includes technology protection measures. The protection measures must block or filter internet access to pictures that are: (a) obscene; (b) child pornography; or (c) harmful to minors (for devices that are accessed by minors). Before adopting this internet safety policy, schools and libraries must provide reasonable notice and hold at least one public hearing or meeting to address the proposal.

Schools subject to CIPA have two additional certification requirements: 1) their internet safety policies must include monitoring the online activities of minors; and 2) as required by the Protecting Children in the 21st Century Act, they must provide for educating minors about appropriate online behavior, including interacting with other individuals on social networking websites and in chat rooms, and cyberbullying awareness and response.

Schools subject to CIPA are required to adopt and implement an internet safety policy addressing:

- Access by minors to inappropriate matter on the internet;
- The safety and security of minors when using electronic mail, chat rooms and other forms of direct electronic communications;
- Unauthorized access, including so-called “hacking,” and other unlawful activities by minors online;
- Unauthorized disclosure, use, and dissemination of personal information regarding minors; and
- Measures restricting minors' access to materials harmful to them.

An authorized person may disable the blocking or filtering measure during use by an adult to enable access for bona fide research or other lawful purposes, and CIPA does not require the tracking of internet use by minors or adults.

Schools can find out more about CIPA or apply for E-rate funding by contacting the [Universal Service Administrative Company's \(USAC\) Schools and Libraries Division \(SLD\)](#). SLD also operates a client service bureau to answer questions at 1-888-203-8100 or via email through the SLD website.

Appendix B: Additional Resources

External links and models

[Forsyth \(Florida\) County Schools Bring Your Own Technology \(BYOT\) Initiative](#)

[Consortium for School Networking \(CoSN\) Digital Equity Action Toolkit](#)

[Hannover \(Pennsylvania\) Public School District BYOD Initiative](#)

[Bring Your Own Device \(The Education Network\) \(UK\)](#)

[Rethinking Acceptable Use Policies to Enable Digital Learning: A Guide for School Districts \(CoSN\)](#)

[Sample Out-of-School Connectivity Survey \(CoSN\)](#)

Federal laws and regulations

[Children's Online Privacy Protection Act \(COPPA\)](#)

The Children's Online Privacy Protection Act (COPPA) gives parents control over what information websites can collect from their children. The Federal Trade Commission has a [Frequently Asked Questions](#) page about compliance, and Harvard Law School's Cyberlaw Clinic offers [an Overview of COPPA and the Family Educational Rights and Privacy Act](#) (FERPA), which offers a sense of some of the laws that may apply as schools begin to use cloud computing tools.

[Children's Internet Protection Act \(CIPA\)](#)

To be eligible for participation in the E-rate program, school and library authorities must certify that they are enforcing a policy of internet safety that includes measures to block or filter internet access for both minors and adults to certain visual depictions.

[Family Educational Rights and Privacy Act \(FERPA\)](#)

FERPA is a Federal law that protects the privacy of student education records. The law applies to all schools that receive funds under an applicable program of the U.S. Department of Education. The U.S. Department of Education's [FERPA resource website](#) includes [FAQs](#), [model notifications for district officials](#), and a [model notice for directory information](#).

[Section 504 of the Rehabilitation Act and Title II of the Americans with Disabilities Act](#)

Under Section 504 of the Rehabilitation Act of 1973 and Title II of the Americans with Disabilities Act of 1990 (ADA), schools must provide accommodations or modifications to students with disabilities that permit them to receive all educational benefits provided by educational technology in an equally effective and equally integrated manner.

[Individuals with Disabilities Education Act \(IDEA\)](#)

Under the IDEA every child is entitled to a free and appropriate public education. This statute is applicable in determining what accommodations must be made for students with disabilities using electronic devices.

State laws and regulations

[M.G.L. Ch. 71 Sec. 48](#)

M.G.L. Ch. 71 Sec. 48 requires that schools purchase at public expense textbooks and other instructional materials and supplies intended for use and re-use over a period of years, to be loaned to students free of charge for the duration of the school year.

[M.G.L. Ch. 71 Sec. 82](#)

M.G.L. Ch. 71 Sec. 82 provision affords Massachusetts students First Amendment protections, "The right of students to freedom of expression in the public schools of the commonwealth shall not be abridged, provided that

such right shall not cause any disruption or disorder within the school. Freedom of expression shall include without limitation, the rights and responsibilities of students, collectively and individually, (a) to express their views through speech and symbols, (b) to write, publish and disseminate their views, (c) to assemble peaceably on school property for the purpose of expressing their opinions.”

[An Act Relative to Bullying in Schools \(Chapter 92 of the Acts of 2010\)](#)

The Massachusetts “anti-bullying law” requires that schools create a comprehensive bullying prevention and intervention plan to address bullying of all forms, including cyber-bullying, defined as bullying through the use of technology or any electronic communication.

Safeguarding student data

Safeguarding student data is an essential part of using data effectively to support student learning. ESE strongly encourages districts to audit district policies, procedures, and systems with regard to the use of student data, either as a standalone audit or as an additional component of the annual financial audit most communities undergo. Below is a selection of resources to help districts formulate sound policies for protecting the privacy of student data.

- The [U.S. Department of Education's Privacy Technical Assistance Center](#) provides information on data privacy, confidentiality, and security practices related to student-level longitudinal data systems. Resources include a data sharing agreement, data privacy and security governance checklists, security best practices, and a model notification of rights.
- The Consortium for School Networking has a [Protecting Privacy in Connected Learning Toolkit](#) with an in-depth, step-by-step guide to navigating FERPA, COPPA, the Health Insurance Portability and Accountability Act, the Protecting Pupil Rights Amendment, and related privacy issues. The website is free but requires registration.
- The Massachusetts Comptroller has a guide on [Internal Controls for Information Systems and Technology](#), and the Information Systems and Technology section of comptroller's [Internal Control Guide](#) may be a useful starting point for designing security audits at the local level.
- The Internet Keep Safe Coalition's [iKeepSafe Generation Safe](#) offers online videos, incident management resources, and a comprehensive self-assessment.
- The [Consortium for School Networking](#) and [Data Quality Campaign](#) have created [10 Principles to Guide the Use and Protection of Student Data](#).
- The Consortium for School Networking has a [four-page English and Spanish handout](#) to help school leaders discuss student privacy.
- Districts can check whether a company has signed the [Student Privacy Pledge](#) created by the Future of Privacy Forum and the Software & Information Industry Association.
- EverFi offers Massachusetts middle and high schools a free, online [Ignition Digital Literacy & Responsibility course](#) for students that includes online privacy and security issues.

Broadband Capacity Targets for Connection to the Internet Service Provider (ISP)

School Year	2017-18 Targets	2020-21 Targets
Small districts (fewer than 1,000 students)	Minimum 100 Kbps/user Scalable to 1.5 Mbps/user	Scalable to 4.3 Mbps/user
Medium districts (3,000 students)	Minimum 100 Kbps/user Scalable to 1 Mbps/user	Scalable to 3 Mbps/user
Large districts (more than 10,000 students)	Minimum 100 Kbps/user Scalable to 0.7 Mbps/user	Scalable to 2 Mbps/user

“Users” include students, teachers, administrators, staff, and guests. All districts should be able to provide at least 100 Kbps/user and be able to scale to the targets based on user needs.