The Bring-Your-Own Dilemma

Student devices are enjoying widespread use in classrooms. The usage question is no longer "How much?" but "How well?"

Outside New York City schools, students line up after school at what looks like a food truck, but they're not ordering gyros. With claim stubs in hand, they're hungry to get their cellphones back. That's thanks to a decade-old ban forcing students to check phones in at the truck in the morning.

Long considered a distraction to learning, cellphones have sometimes been regulated with an out-of-sight, out-of-mind attitude. In New York, students at schools with metal detectors have been forced into the strictest compliance. Parents know it as a safety issue, but aren't the devices more than just a parent-child lifeline?

Indeed, in the past couple of years, bring-your-own-device (BYOD) programs in school districts have actually been exploding, according to surveys conducted by the Center for Digital Education, rising from 22% to 56%. High schools (84%) and middle schools (74%) carry the bulk of such programs. Even New York's mayor acknowledged his son brings a cellphone to school; now the mayor is lifting the ban.

And farther outside New York City schools, in other school districts across the country, the challenge isn't necessarily behavior-related at all. According to 2014 results from the Vision K-20 Survey from The Software & Information Industry Association (SIIA; siia.net/visionk20/2014_VK20.pdf), "almost all postsecondary participants report mobile devices are allowed in the classroom." Depending on where you ask, the issue with school use of cellphones and other devices is less about distraction and more of how to leverage them as an innovative learning tool.

GETTING EFFECTIVE

More than two-thirds of school districts encourage the use of mobile apps for instruction, according the Center for Digital Education and the National School Boards Association. And according to Speak Up surveys from Project Tomorrow, whereas in 2010 only one-fifth of school principals (22%) were likely to allow students to use their own mobile devices at school, by 2013, the percentage of principals comfortable with that policy jumped to 41%, with an additional 10% noting that they had already made the policy change. Educators and school administrators, increasingly using devices in their own professional and family lives, aren't just relaxing the rules; they're looking for ways to usefully integrate them into the classroom experience.

Samsungs, iPhones, iPads, and other mobile devices can be used for everything from recording audio to creating video clips and posts, and all manner of apps, as well as actual academic research. According to data from Mobile Future, a Washington, D.C.-based nonprofit, these days 43% of all pre-K through 12th grade students use a smartphone, and 81% of teachers say mobile devices enrich classroom education. Additionally, 73% of middle school and high school teachers are using them for classroom activities. Not to mention, with more than 100,000 educational apps in Apple's App Store, the potential benefits are there for the taking.

Nonetheless, "the real value of these always on, highly convenient devices on student outcomes is highly dependent

Image courtesy: eBackpack Rockwall ISD

upon how effectively those devices are integrated into classroom instruction," says Julie Evans, CEO of Project Tomorrow. "To get the deeper impact of these devices on student learning, we need to think differently about how to help teachers change their practice to leverage the unique capabilities of the tools. A similar situation exists in the potential of online, blended, and flipped classrooms to support students' individualized needs," she says.

A MATTER OF TRUST

According to the SIIA Vision K-20 Survey, across all K–12 and postsecondary participants, mobile devices are used most frequently in the classroom to access and research digital content online. Next most frequent: Mobile devices in K–12 classrooms are used to create content, develop skills, and communicate and collaborate. In postsecondary classrooms, it's access to etextbooks and instructional materials.

Karen Billings, vice president of the Education Division at SIIA, says that both the K–12 and higher-education sectors "are implementing BYOD primarily so that students can access or research digital content online. For K–12, the devices are used heavily to create content and develop skills." However, while the highest implementers were postsecondary schools (both 2-year and 4-year institutions) with an implementation rate higher than 90%, Billings notes, "We were surprised at the high rates until we saw the restrictions they listed. They included downloading rich media files (streaming video) and use of social media, such as YouTube and Facebook."

Eric Sheninger is director of technology and innovation in the Spotswood School District in New Jersey. "BYOD begins with trusting and respecting students," says Sheninger, author of *Digital Leadership: Changing Paradigms for Changing Times.* Sheninger advocates practical plans for school leaders to follow in transforming school cultures amidst all the BYOD noise.

Alright, so once trust and respect are established, then what?

MODEL SCHOOL VIEW

Maria Harrington is a classroom technology designer at the 70,000-student, 60-school Katy ISD, the suburban school district in Houston. Recently named to a list of Top Ten Digital Schools in America by the Center for Digital Education and the National School Boards Association, Katy ISD is a good example of a positive school culture. The district now has different challenges. "We learned we had to adjust our Wi-Fi and access points," Harrington explains. Once the technical glitches are smoothed out, the paradigm can shift toward a focus on increased student achievement. "Now, students are using their own devices to access our brand new LMS Canvas; they're using their devices for blended learning courses. Our district is focusing on formative assessment and students are using their phones on a daily basis on programs like Kahoot, Padlet and GoSoapbox. Looking to the future, we are testing our web system to make sure it's compatible with all device platforms."

Currently, Katy ISD has several English-language arts teachers posting questions about student choice books being read in class (questions coinciding with their Readers/Writers workshop, says Harrington). Students are also blogging with Kidblog. "Ms. Sparks, one of our reading intervention teachers, was awarded a grant for her Thousand Stories Told project," reports Harrington. "Her students are writing letters to their future grandchildren using Google Drive and uploading to Shutterfly to create hardbound books." Chemistry teachers have students take selfies with various items' nutrition labels in their kitchen and write about the chemical additives in the ingredients' lists. A junior high librarian is launching a contest where students can create a video game, app, ebook, or graphic novel from a book to coincide with an upcoming visit by the author.

Indeed, Katy ISD has been working the BYOD angle for several years now. Broadly, "devices are being utilized to foster personalized learning and interaction with students beyond the classroom walls," says Harrington. Specifically she explains, "Students are now receiving notifications on assignments, which computer lab to meet in, and test reminders on an instantaneous text message basis. If an announcement has a date, students can create a calendar event in their phone to track what's going on with each class. They're shifting how they use devices from entertainment to class and time management, assignment creation and delivery, and collaborating with other students." She adds, "They're now using them to create rich multimedia products — an iMovie trailer instead of a poster, a Google Presentation instead of a book report." Apple iPhones are most prevalent with students in the school district. They're most commonly used for quick document edits and creations, student collaboration, formative assessment, and time management.

Aren't some students left behind? "Most students have a smartphone in our secondaryschools, but beginning last year, our district rolled out Digital Divide Funding for iPads in the classroom," says Harrington. "We've purchased iPads to distribute to classroom teachers to supplement our BYOD policy so that all students can participate in device-driven activities and instruction," she says. "Students without access to a smartphone have the opportunity to use one in class and check one out of the library for overnight takeout to complete the homework assigned."

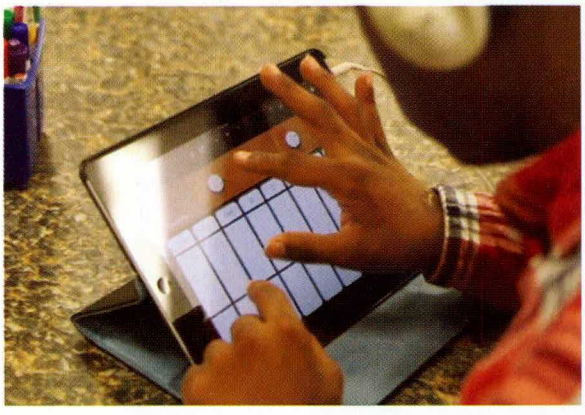

Image courtesy: eBackpack Southampton Public Schools

Image courtesy: eBackpack Webb School of Knoxville

ELSEWHERE ACROSS THE COUNTRY

Michael Zilinskas, CEO of eBackpack, a device-agnostic classroom workflow solution built specifically for school districts, has a unique bird's-eye view of BYOD activity. He sees "increased support for BYOD initiatives at schools across the country, both public and private, in various new ways. Historically, we'd see a 1:1 (student-to-device ratio) or a BYOD school," he says. "Now," he observes, "we're seeing much more hybrid school deployments—BYOD/BYOT at different grades or campuses combined with 1:1 programs. We're also seeing where schools are assisting in BYOD initiatives to try and create 1:1 programs." His classroom workflow platform provides a common user experience across all devices. That is of tremendous benefit, he says, "particularly for the teacher who gets involved in classroom-level support."

In visiting a diverse cut of school districts nationwide, Zilinskas witnesses everything from homework completion, video and audio projects, and even hybrid applicability in projects such as science labs "that blend a combination of pictures of an experiment with text and audio descriptions." He also sees an increase in students demonstrating their knowledge in creative ways through BYOD programs, with his cross-device classroom workflow and collaboration platform supporting text, drawings, audio, video, and hybrid projects as well as turn-in and sharing from a variety of apps. "Music classes use audio capabilities, physical education classes and sports use video for analysis, and foreign language classes love the hybrid capabilities [of our BYOD platform]," he says. From incredible presentations by art teachers, students using the device camera capabilities and support turn-in and creation of their digital portfolio, to providing feedback to other students on shared projects, and receiving feedback from their teacher — Zilinskas has seen power in making BYOD programs succeed.

LIBRARIANS' PERSPECTIVE

Emily Gover, who earned her Master of Information Science from State University of New York–Albany, is an information literacy librarian and an advocate of knowing and using digital tools for learning. According to Gover, "Collaboration is huge with BYOD. There are so many apps and tools that allow students to collaborate with one another both inside and outside the classroom." She adds, "Formative assessment can also be improved with BYOD. Tools like Socrative work well with BYOD programs." As for choice devices, "Students bring iPod Touches, iPhones, iPads, and Android tablets/phones. The beauty with BYOD is that, in many cases, as long as a device can connect to the web, they can learn in new ways. However," she warns, "there may be roadblocks with apps only being supported by specific operating systems (e.g., Only iOS version 6 or later)."

Michele Kirschenbaum is a full-time school librarian for the New York City Department of Education. What's new with BYOD in her sector of the universe? "Cloud computing," says Kirschenbaum. "With more schools adopting 1:1 initiatives with iPads or Chromebooks, it's easier than ever to sync assignments and projects across devices." She points to tools such as Google Drive, Dropbox, and Evernote, which all make it simple to find and access assignments, class notes, and texts at home. "This," she says, "increases transparency between the classroom and home."

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>
> *–Julie Evans, CEO, Project Tomorrow*

Nonetheless, evethose districts that have adopted a BYOD policy "are still struggling with how to effectively and efficiently provide devices for students who may not be able to afford them, and how to train teachers on best practices for teaching in a classroom where conceptually every student has a different device with various levels of functionality and content," according to findings of the Project Tomorrow 2014 Speak Up survey.

"The plethora of digital tools and resources available to educators today, from tablets to digital books, makes it challenging for school leaders to know how to make the right decisions and sound investments," notes Evans, CEO of Project Tomorrow.

Nonetheless, in so many cases, where there is a will, there is a way; where school leaders can align forces for a common good, there can be solutions, and where once there was a grand dilemma, there is now a great deal of progress being made. Keep up the great work, exert your leadership on whatever level you may work, and don't forget to use all that technology to connect with those who might assist you in advancing your own important corner of education. Good luck!

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