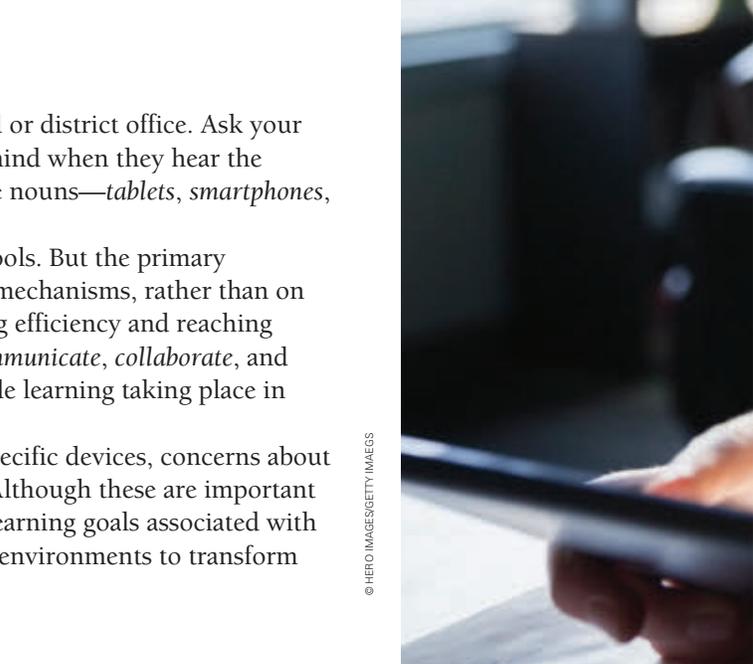


A Vision for Mobile Learning

MORE VERBS, FEWER NOUNS

Speak Up surveys give insight into how students want to learn.



Julie Evans

Try this experiment during a staff meeting at your school or district office. Ask your colleagues to write down the first word that comes to mind when they hear the phrase *mobile learning*. Chances are, most words will be nouns—*tablets, smartphones, or apps*.

Interest in mobile learning is increasing in K–12 schools. But the primary emphasis in many schools continues to be on the *nouns* of delivery mechanisms, rather than on the *verbs* that demonstrate the impact these devices have on learning efficiency and reaching important goals. Powerful college- and career-ready verbs—like *communicate, collaborate, and contextualize*—are woefully missing from most discussions on mobile learning taking place in principals' offices or school board meeting rooms.

Planning sessions often involve questions about the features of specific devices, concerns about infrastructure, and debates on policies to support (or limit) usage. Although these are important considerations, educators need to pay much more attention to the learning goals associated with mobile initiatives if they are to capitalize on the potential of mobile environments to transform teaching and learning.

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Lucky for us, today's students concentrate on what they can do with mobile technology (the verbs), rather than on the types of mobile devices (the nouns) within their learning worlds. Their perspectives provide valuable information that school leaders can use to focus on the right verbs as they craft mobile learning plans.

Since 2001, through our annual Speak Up surveys, Project Tomorrow has polled K–12 students, parents, and educators throughout the United States on their views regarding digital learning. We work with schools and districts to facilitate broad participation in these surveys and usually reach more than 400,000 participants annually. The resulting large-scale data set informs local, state, and national policies and programs on many digital learning topics—including mobile learning.

One of Speak Up's goals is to increase understanding about how K–12 students use various digital resources for learning and about these students' perspectives on how technology affects their learning lives. Reports based on findings from these surveys document that today's students have a well-developed vision for digital learning. That vision, surprisingly, is less about the technology and more about specific transformations students want to see in their overall learning experiences, both in and out of school. For many students, mobile devices and resources are the ideal means to realize new experiences that they believe are essential to their future success as leaders, innovators, and engaged world citizens.

How Students Envision Mobile Learning

For today's students, learning is a 24/7 enterprise with a myriad of informal, spontaneous, self-directed learning

experiences happening throughout the day. The traditional school experience is but a fraction of their overall learning day, and for too many students, it's the least productive and most restrictive component. Data from the 2013 Speak Up survey of more than 325,000 K–12 students provide evidence of how students view traditional education and the emerging importance of digital learning, both in and out of school.

Although only one-third of high school students say they're interested in what they are learning at school, a growing cohort of students see online classes and texts, digital games, and mobile devices as vital gateways to their increased engagement in learning. Of respondents who identified themselves as advanced technology users, 50 percent of boys and 49 percent of girls had played an online game specifically to learn something; 44 percent of boys and 51 percent of girls had found a video online to help with homework; and 46 percent of boys and 56 percent of girls had researched a website to learn more about a topic. About 20 percent of students of both genders had found an expert online to answer their questions (Project Tomorrow, 2014b).

Central to this new type of learning engagement is a shift in the learner's role, from a passive consumer of information to an active developer of the knowledge and skills that the learner considers important for his or her future. The traditional school model is predicated on the idea of students as consumers of knowledge. Today's students place a higher premium on the experience of creating content and sharing their discoveries, masterpieces, and manuscripts with the world. They also expect to use technology to direct and monitor their own learning experiences.

A disconnect between adults' and

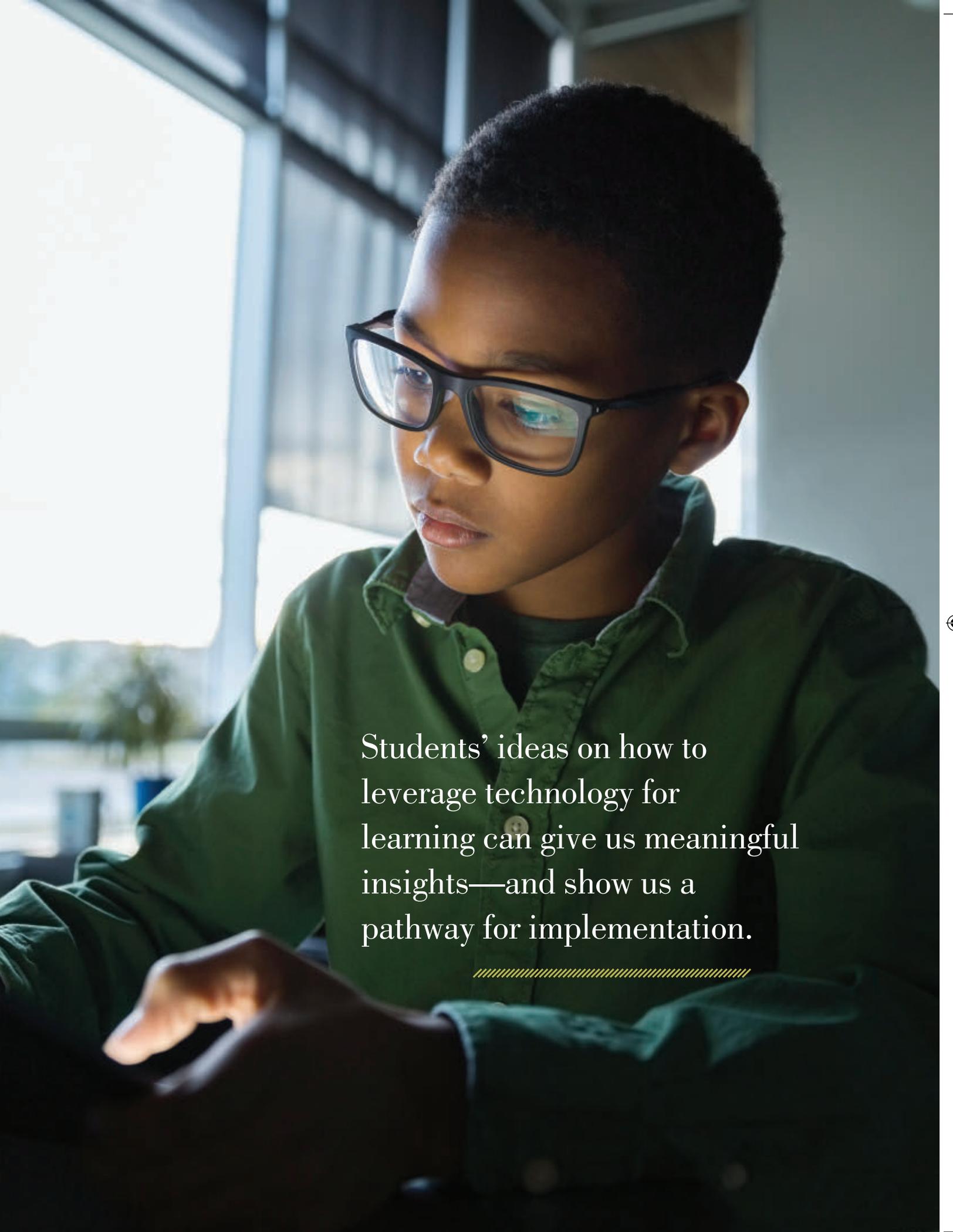
students' perspectives on the role of digital tools for learning plays out every day in schools, for example, when students can't use smartphones in class. Many education leaders are valiantly trying to reconcile their traditional views with this new learning order in which students can, with a few clicks, access more information and expertise about a topic than their teacher or school library might have. Adjusting to this new learning order—what some call the digital conversion of our classrooms—isn't for the fainthearted. But understanding how students want to bring the best elements of their informal, self-directed learning into the classroom can help school leaders plan for this digital conversion.

The key is realizing that students' ideas on how to leverage technology for learning can give us meaningful insights—and show us a clear pathway for implementation.

For today's students, the optimal learning experience is

- *Social.* Students want to leverage emerging communications and collaboration tools to create personalized

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A young boy with short dark hair and black-rimmed glasses is looking intently at a laptop screen. He is wearing a green button-down shirt. The background shows a modern building with large windows and a view of a city and mountains under a bright sky. The lighting is soft and natural, coming from the window.

Students' ideas on how to leverage technology for learning can give us meaningful insights—and show us a pathway for implementation.



networks of peers, teachers, and experts who inform their education process.

■ *Untethered.* Students envision technology-enabled learning experiences that transcend classroom walls and that aren't limited by traditional print or location-dependent resources—or even by teacher knowledge and skills.

■ *Digitally rich.* Students want to use relevant digital tools, content, and resources to provide context for their learning and to learn more productively—not just because these tools are engaging (Project Tomorrow, 2014b).

Although many emerging technologies can support this vision,

mobile learning is uniquely qualified to deliver on students' expectations. Mobile devices are becoming ubiquitous; 90 percent of U.S. adults now have a cell phone, and 58 percent have a smartphone—a cell phone with Internet access capability. K–12 students are also becoming “mobilists”: In 2013, 89 percent of high school students and 73 percent of middle school students had a smartphone, compared with 44 percent of high schoolers and 34 percent of middle schoolers in 2010 (Pew Research Center, 2014; Project Tomorrow, 2014b). Many secondary-level students also have access to digital readers, tablets, and laptops, as shown in Figure 1.

Toward New Mobile Verbs *Personalize Students' Learning*

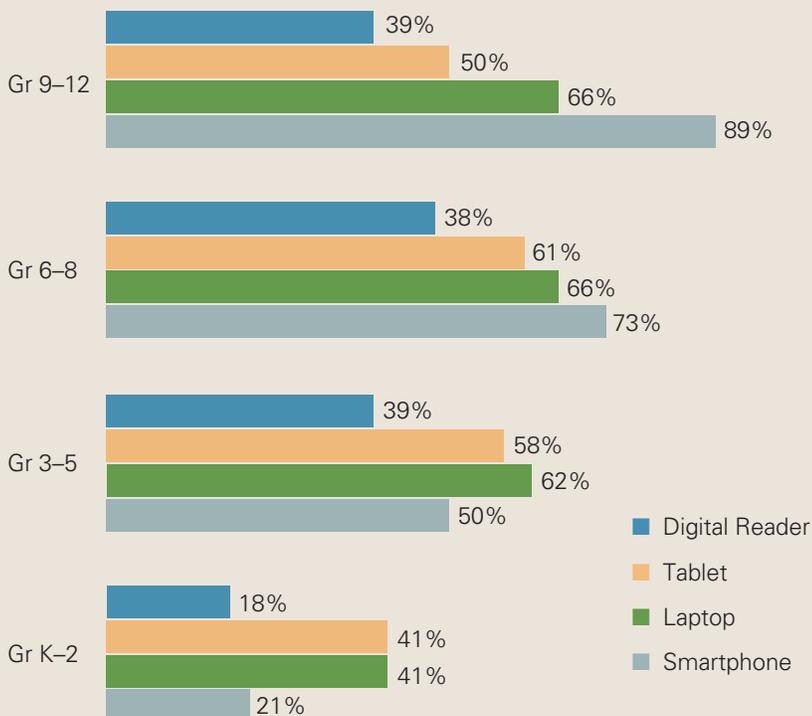
Young people are leveraging these tools for self-directed learning. From New York to California, today's students are using mobile devices to personalize the learning process for themselves. In a Speak Up survey conducted in 2013, students reported using smartphones, tablets, and laptops to complete homework assignments, facilitate projects, collaborate with classmates, self-remediate through online videos and social networks, and pursue self-directed activities around academic topics of interest (Project Tomorrow, 2014b). Such experiences have helped students appreciate how going mobile can lead to deeper engagement in learning, improved productivity, better relationships with teachers and peers, and growth in skills needed for college and careers.

Increasingly, parents and other family members—rather than the local school—are giving students access to these devices. Despite high-profile media stories about one-to-one programs, only 32 percent of students in grades 6–12 say their school has provided them with a laptop for schoolwork. School-provided tablet programs are even less common; 16 percent of high schools and 21 percent of middle and elementary schools provide such devices for student use at school. However, 67 percent of parents of school-age children say they'd be willing to purchase a mobile device for their child to use in school, if schools allowed it (Project Tomorrow, 2014a).

Let Them Use Their Device

Given their high level of access to mobile devices and their thirst for personalizing learning, it makes sense that students would prefer to use

FIGURE 1. K–12 Students' Personal Access to Mobile Devices



Source: *The New Digital Learning Playbook: Understanding the Spectrum of Students' Activities and Aspirations* by Project Tomorrow, 2014, Irvine, CA: Author. Copyright 2014 by Project Tomorrow. Used with permission.

their own device at school. When asked to identify how their school could improve technology usage in the classroom, 53 percent of students said that being able to use their personal laptop, tablet, or smartphone would make it easier for them to do schoolwork (Project Tomorrow, 2014b).

Grasping the importance of using a personal device is key to understanding the new verbs associated with mobile learning. Imagine for a moment that you arrive at your office or classroom one day and are assigned a generic device that you can use only at limited times during the day. You have no access to your bookmarked websites, personalized settings, or any content you've created to support your efficiency as a teacher or administrator. Many would agree that this situation would affect a person's productivity and possibly generate stress and frustration. Yet in many schools today, the only access students have to mobile devices is through a cart that, sporadically, brings a set of generic laptops or tablets into the classroom.

It's no surprise, therefore, that students feel that using a school-provided mobile device—even a high-quality brand or the latest model—is a less-satisfactory option than bringing their own device. This is also true for students in economically challenged communities.

The availability of lower-cost and more fully featured mobile devices with Internet access—including smartphones and tablets—is challenging the conventional wisdom that students in low-income U.S. communities lack access to these devices and the Internet. Speak Up research documents that the percentage of students in Title I high schools who access the Internet primarily through a mobile device (65 percent) is almost the same

FIGURE 2. What Is the Best Device to Help You?

Schoolwork Task	Middle School Students' Device Selection
Create a multimedia presentation or write a report	Laptop
Do Internet research for class	Laptop
Communicate with classmates or teachers	Smartphone
Create a video for schoolwork	Smartphone
Take notes in class	Tablet
Read a book or article	Digital reader

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as the percentage of students in non-Title I high schools who do the same (67 percent). Increasingly, in terms of mobile device usage, the traditional divide between students with different home and community demographics no longer applies.

Parents' views on the value of students using their own mobile devices at school echo their children's. This issue is gaining attention in many school and district offices. Widespread parental (and student) support for Bring Your Own Device policies has many schools rethinking their approach. In 2010, 22 percent of school principals said they were likely to allow students to use their own mobile devices at school; by

2013, that percentage had jumped to 41, with an additional 10 percent noting that they'd already made such a policy change (Project Tomorrow, 2014a). Financial considerations are also a factor in these policy decisions: 32 percent of technology administrators noted that having students use their own mobile devices was an explicit strategy to address budget challenges.

Differentiate Tools by Tasks

Today's students have a different perspective on the roles various mobile devices play in meeting their learning goals. Whereas many education leaders continue to hunt for the holy grail of mobile devices (the one perfect

Many education leaders are valiantly trying to reconcile their traditional views with this new learning order.



device to put in learners' hands), most young people have transcended that question. They approach the connection between various devices and learning goals by emphasizing a new verb; they *differentiate* the tools they choose by the task required.

For example, when one Speak Up survey asked middle schoolers what would be the best device to accomplish various academic tasks, their responses showed that their desire to do each task efficiently trumped their desire to use any particular device just because it was engaging (see fig. 2 on p. 15). Through their experiences using these tools for learning, students have gained knowledge about which types of activities are best served by which mobile devices or functions.

For today's learners, mobile devices are tools, not toys. Students acknowledge that working with a smartphone or tablet can raise their engagement in class, but the stated reasons they value such machines have more to do with efficiency and the effectiveness of the learning process than with the compelling nature of the devices. In addition, if we accept that most students' vision for learning places a high premium on social, untethered, digitally rich experiences, their optimum learning environment would have to include access to a wide range of mobile devices with differentiated functions that support many

ways of learning and many kinds of final products. One size does not fit all in students' prescription for effective mobile learning.

Toward Reengineered Instruction

Changes in education policy or district practices often catalyze new ways of thinking about teaching and learning. If we are to realize mobile tech's potential to heighten learning, besides including smartphones, tablets, or laptops in classrooms, many teachers will need to reengineer their instructional practice. Students' increased access to information, the plethora of multimedia content on the web, and the portability and always-on capabilities of these devices must be leveraged, not stifled by predigital classroom pedagogy.

Project Tomorrow is helping evaluate several mobile learning projects, examining how projects using mobile devices affect student learning and teacher effectiveness, and exploring teachers' technology integration processes. Early results from these studies indicate that several elements are key to effectively tapping the potential of mobile learning: purposeful planning around learning goals, identification of good mobile-enabled content and curriculum, embedded teacher training, and leadership buy-in (Kajeet & Project Tomorrow, 2014).

Like students, teachers who work in classrooms with one-to-one mobile devices are coming to value the activities these devices make possible more than the machines themselves. When asked how technology use benefits their students, these teachers highlighted students learning to work collaboratively, developing creativity and critical-thinking skills, taking ownership of their learning, and applying academic concepts to real-world problems. They talked about building their own effectiveness as teachers by personalizing learning, creating more interactive and relevant lessons, and helping students develop college- and career-ready skills (Project Tomorrow, 2014a). They used more verbs and fewer nouns.

Increasingly, schools and districts are following suit, placing more emphasis on how technology will change students' learning lives and less on the features of devices and networks. Today's students will be proud to hear this. ■

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Julie Evans (jevans@tomorrow.org) is chief executive officer of Project Tomorrow in Irvine, California. Follow her on Twitter @JulieEvans_PT.

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