SYNERGY SPARKS DIGITAL LITERACY

REDEFINED ROLES CREATE NEW POSSIBILITIES FOR TEACHERS AND STUDENTS

By Kristine Gullen and Tovah Sheldon

earning and leading happen everywhere
— and technology unlocks access to information.

Want to visit a local museum, but you're not sure how to get there? Down-

you're not sure how to get there? Download directions from a map app, key the address into a GPS or your phone, and a voice provides turn-by-turn instructions to the destination.

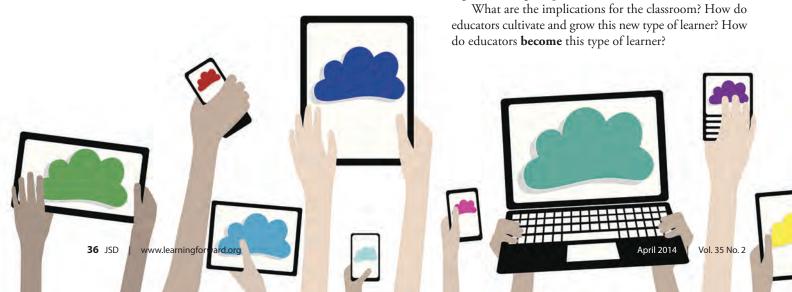
Interested in an exhibit at the Smithsonian National Museum of Natural History, but can't get to Washington, D.C.? A website provides a self-directed virtual tour (www.mnh.si.edu/vtp/1-desktop).

Students — even preschoolers — are curious and

boldly confident in knowing how to access information on a multitude of devices. Why are some adults uneasy about using technology?

Knowledge has become an accessible commodity, and reaching for information on the Internet is remarkably comfortable and intuitive to most youth. Yet the unrestricted access and unabashed confidence of students using digital devices has placed many educators on unfamiliar and sometimes uncomfortable footing. Educators are often no longer the only experts on the information, tools, and know-how used to gain knowledge.

For teachers, becoming proficient with digital tools isn't enough. With the exponential rate of innovation, and the creation of websites, apps, and devices, roles are changing. The person whose disposition is to be curious, confident, and eager to try something new, explore, engage, and try again learns what is needed to teach and lead regardless of age or position.



TEACHER REFLECTION

As educators who support and develop the global and digital literacy of teachers and leaders in Michigan, we see a spectrum of responses, from confidence to curiosity to defensiveness and even nostalgic reflections.

At a workshop on technology integration, a veteran teacher, visibly frustrated with trying to negotiate a website, said, "Remember the three R's? When it comes to reading, writing, and arithmetic, that I know how to teach. Why do I need to learn this?"

Leadership and teacher preparation are shifting. While there is foundational content contained in the three R's and in every discipline, in this age of connectivity and information growth, obtaining knowledge is just the beginning (Gullen & Zimmerman, 2013). Deepening the level of cognitive demand by applying, integrating, and communicating what we have learned to authentic realworld situations is essential. Tony Wagner (2008) states, "In today's world, it's no longer how much you know that matters; it's what you can do with what you know" (p. 111). Technology can be a lever in transforming instruction and empowering learners and leaders with a whole new set of emerging literacies.

EDUCATIONAL IMPLICATIONS

Reading, writing, and arithmetic now fall under a broader category of literacy, which encompasses knowledge

from any or all disciplines along with the ability to create, question, critique, and communicate verbally, graphically, digitally, globally using a variety of platforms, devices, texts, images, and sounds.

At first glance, it might seem overwhelming. Teachers often lament, "I am a math teacher (or science or mu-

sic or business or history). I am not trained to teach reading, literacy, or whatever you now call it." How can every teacher possibly be expected to know how to do all of this? Learning Forward's Standards for Professional Learning (Learning Forward, 2011) can provide support. Enacting the Learning Communities standard within a classroom can reframe the role of the teacher and student to compel a new type of classroom design — one that is "committed to continuous improvement, collective responsibility, and goal alignment" (Learning Forward, 2011).

| INTERNET EVOLUTION | |
|-----------------------------------|--------------|
| 1995 | 2013 |
| Users of the internet | |
| 16 million | 2.75 billion |
| World's population that is online | |
| | |
| 0.4% | 38.8% |
| 0.4% Registered doma | 30.070 |

Sources: Internet World Stats, 2014;

Verisign, 2013.

Experts who can support educators with the knowledge, tools, and processes to elevate content into 21st-century literacies are all around us. For instance, educators can engage students in creating a classroom learning community by learning and leading together.

ENGAGING STUDENT VOICES

Taking a first step to re-create this new synergetic structure of learning, we invited a series of student groups in spring 2013 to provide insights and recommendations into the redesign of learning, projects, and instruction. Students were asked three questions:

- 1. How do you learn what is important to you?
- 2. When you think of the most engaging classwork and



projects you have completed this year, what did you do?

3. If you could design or reimagine a class, how would you integrate technology?

As a warm-up, students introduced themselves and shared their favorite thing in school. Socializing with friends, engaging in sports or clubs — even before launching the planned questions, students were teaching us. We wondered: If socialization was a favorite part of being in school, how do we link peer-to-peer interaction with the content we want them to learn (Erickson-Guy & Gullen, 2013)?

Student responses to our first question — "How do you learn what is important to you?" — confirmed this concept. There was great consensus within and between groups that most of what they want to learn they find online, whether on social networking sites, twitter feeds, or just browsing.

Yet students also talked about dynamic teachers, ones with passion for their subjects and for their students. Students described the classes that connected real-world issues to what they are studying — whether it was in reading great literature, exploring historic events, or learning the background of a mathematician or scientist. Students liked learning about the people behind the theories.

There was also talk of classrooms that were engaging, and teachers who willing to learn with and from them. One student said, "My teacher didn't have all the answers. She asked real questions, and we figured it out together."

When asked to describe engaging classwork or projects, students shared times when they debated, had to study different perspectives, and the online research they needed to do in order to prepare.

Students spoke about classrooms that encouraged them to tap into resources such as neighbors, relatives, and online searches, and the need to search and re-search again. They described projects where they could bring in all sorts of technology, not just what the teacher knew how to use, and that

QUICK TECHNOLOGY RESOURCES FOR EDUCATORS

21 Things for the 21st Century Educator

www.21things4teachers.net

50 Education Technology Tools Every Teacher Should Know About

www.edudemic.com/50-education-technology-tools-every-teacher-should-know-about

13 Free Web Tools Students and Teachers Should Know About

http://blogs.kqed.org/mindshift/2013/07/13-free-web-tools-students-and-teachers-should-know-about

International Society for Technology in Education (ISTE) Resources

www.iste.org/learn/resources

GROUND RULES FOR STUDENT DIALOGUES

hen gathering a group of students to hear their opinions and suggestions, be ready. We found most students are very comfortable, willing, and eager to share with adults who listen. Positive outcomes often happen if these conversations are planned well. Setting ground rules is an important first step. We would suggest asking students to agree to:

- Speak from their own experience, not what they have heard from others;
- Describe the characteristics of the learning, not the people involved; and
- Remember that the conversation is to help design or redesign instruction. Think about positive examples of current lessons or projects and also suggestions for future planning and design.

students became the experts and the leaders.

REIMAGINING A CLASS

When we posed the final question — "If you could design or reimagine a class, how would you integrate technology?" — the room erupted. In great detail, students described apps, talked about websites, video clips, and attempted to describe all sorts of media and new technologies. Finally, one student asked, "Can I show you on my phone?"

Within moments, students began reaching for their out-ofsight devices. They began showing, sharing, laughing, and adding to the conversation. They made suggestions on how to use a shared document for group planning and creating group projects as one student showed a collaborative report he had created with others. Others shared online video conferencing tools that enhanced communication inside and outside the classroom.

One student shared a favorite feature from YouTube called Spotlight and launched the online tutorial on how to make an interactive lesson (www.knewton.com/blog/edtech/2010/12/15/how-to-make-an-interactive-lesson-using-youtube). Others shared their videos that were already created and available on YouTube, TeacherTube, and SchoolTube.

As web addresses and ideas came faster than we were able to capture, another student took a leadership role for the group and launched a live chat using TodaysMeet (http://todaysmeet.com). Students readily signed in and created a text thread. Suggestions were captured instantly.

WILLINGNESS TO LEARN

It's hard to imagine going back to the flip phones from just a few years ago, much less conquering the unknown devices next year's upgrades will bring. What is essential is the willingness to learn.

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Cultivating and intentionally using new technology takes a disposition to risk and try again. It begins by redefining the roles of teacher/student and learner/leader. When educators create inclusive-synergetic learning communities, students often share insightful perspectives and create new possibilities.

Using digital tools to access information and to connect with others is common practice outside the school day. In the classroom, if educators want to learn how to leverage 21st-century skills, opportunities abound to create a classroom learning community where all members are learning and leading together.

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How to build schools where adults learn

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be driven by these two considerations.

Kathy Bieser, principal of the International School of the Americas in San Antonio, Texas, says that, in the same way that good teachers plan with particular students in mind, she plans every faculty learning experience with the learning practice and needs of the adults in mind. "I have to be open to what is going to happen and adjust, adapt, keep working at it with the teachers, the leadership team, and myself" (Breidenstein et al., 2012, p. 99).

The second lesson is more complicated. It is quite clear that when a group needs an instrumental approach, a socializing approach will not be helpful. Sue Snyder made the right choice in turning her faculty meetings into classes. The adults needed concrete procedures and specific knowledge. However, there are limits to instrumental learning practice.

Jeff Price, principal of Serna Elementary in San Antonio, articulated the limits when he encountered them in his school: "We ask ourselves: Why aren't we going to scale on this? Why aren't we seeing whole school learning? When we are not, we know it's often because teachers aren't sharing their work and learning, especially from our success. We can't go to scale without sharing our work" (Breidenstein et al., 2012, p. 95). An instrumental learning practice helps individual teachers improve their teaching practice; a socializing learning practice improves the school.

Building schools where adults learn requires leaders to be persistent, intentional, and transparent in their efforts connecting a learning practice to improvements in teaching practice. While this is easier said than done, with time and systematic experimentation, learning leaders can meet teachers where they are by providing professional learning that both supports current learning and teaching practices and nudges faculty toward more complex and collaborative ways to work and learn.

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