FINAL FRAMES

Two legendary faculty members are retiring this year:
Blackie Parlin and Scott M. Jacoby

Technology @ Newark Academy

FOSTERING RELATIONSHIPS

BY JEFF VINIKOOR

By almost any measure, Newark Academy is a tech-savvy school. Every student has an Apple Macintosh laptop, and almost all carry smartphones. Teachers post assignments on a web-based learning management system, which allows students to track assignments and submit their work online. And students routinely access a plethora of digital tools – for collaborating with each other, for accessing information, and for producing everything from essays and lab reports to movies and computer applications.

At

the same time, Newark Academy is a school that cherishes personal relationships. Indeed, a distinguishing characteristic of the Newark Academy community is the deep connections that students have with each other and with their teachers – connections that teach social and emotional skills and that bring together, and bind together, the members of a diverse community. Protecting these relationships from technologies that threaten to disrupt them – from devices and applications that erode connectedness and diminish empathy – has, in recent years, become a persistent challenge.

"I think Newark Academy has won the cultural war over obsessions with cell phones, especially in public spaces," observes Upper School Principal Rich DiBianca. Students, for example, aren't allowed to use their cell phones while at lunch or while walking down hallways. "But there are many little battles still to be fought," he adds. "Because we value face-to-face interactions, we make those a priority. In a relationship-centered community, we must protect our interactions."

At the same time, Newark Academy has sought to embrace and champion technologies that enhance teaching and learning. Director of Technology David Kapferer leads a team of educators and technicians charged with identifying and implementing technologies that advance the school's educational mission. "We seek technology that simplifies a task, makes a process more efficient, or empowers us to accomplish what is otherwise unimaginable," says David. "We want to provide teachers who are eager to innovate with the hardware and software they need to take their classes to the next level in ways that strengthen teacher-student relationships."

In the pages that follow, we highlight three educational technologies that are not only improving pedagogy but also deepening relationships in Newark Academy's English, math and language classrooms. Each of these tools aims to help students grow as thinkers, creators and empathic individuals.

Immersive Instruction in the English Classroom

When Alexandra Mahoney began her career in the classroom in the early 1990s, she often found herself tethered to the chalkboard during discussions of poetry and literature. "I would usually be stationed in the front of the room recording the class's ideas," Alexandra says. "As I wrote, students were focused on my movements at the board, whereas I wanted them to be focused on engaging with each other and with the text."

In recent years, Alexandra has sought to find and adopt new tools that offer more flexibility in her classroom configuration while still allowing her to record and project content. Her search has not been easy. "I've tried a lot

of technology that actually impairs the fluidity of classroom conversation because it's slow or glitchy," she says. "If technology interrupts the dynamic of a class, it fails." This year, however, Alexandra has found an effective technology that integrates seamlessly into her classroom. Using an Apple Pencil with an iPad Pro connected to Apple TV, Alexandra can now move throughout the classroom during discussions while still projecting notes for the students to see.

This technology has enabled Alexandra not only to take notes and mark up text in visually engaging ways but also to sit among students during discussions. She uses the Apple Pencil to project her own handwritten notes for the class, which can then be stored and revisited. "Handwriting preserves the crucial spark of connection that happens in live teaching," she says. "These tools, then, actually enhance learning by strengthening the interactions of the students with me and with each other."

When 6th grader Evan Bulan came across a news article that explored how *Pokémon Go* can be used in the classroom, he knew that his classmates would be intrigued by it. "Since games are not usually allowed in schools," he explains, "a school that uses a game like *Pokémon Go* to teach science and math seemed pretty unique."

Exploring New Technologies in the Math Classroom

To share the article with his peers, Evan posted it on a digital pinboard created by mathematics teacher Rob Rezvani using the website Padlet.com. Rob began using the board three years ago in order to encourage students to contribute to his class's ongoing conversations about the many ways in which mathematics is, as he says, "more than just numbers." Evan's article is one of more than 20 that students have posted this academic year.

Rob regularly devotes class time to discussing student contributions to the board. During these conversations, Rob asks the students to consider the mathematical principles that make new technologies possible. "I want my students to ask 'What is the math behind this?' and 'Are there any other applications for that math?'" he says. The discussions that ensue are driven by the students' passionate curiosity and their natural fascination with new technologies.

The conversations typically end with the students offering their thoughts on how they would improve each technology. "It's not unusual," says Rob, "for students to consider how they would make a new technology even better, even more awesome."
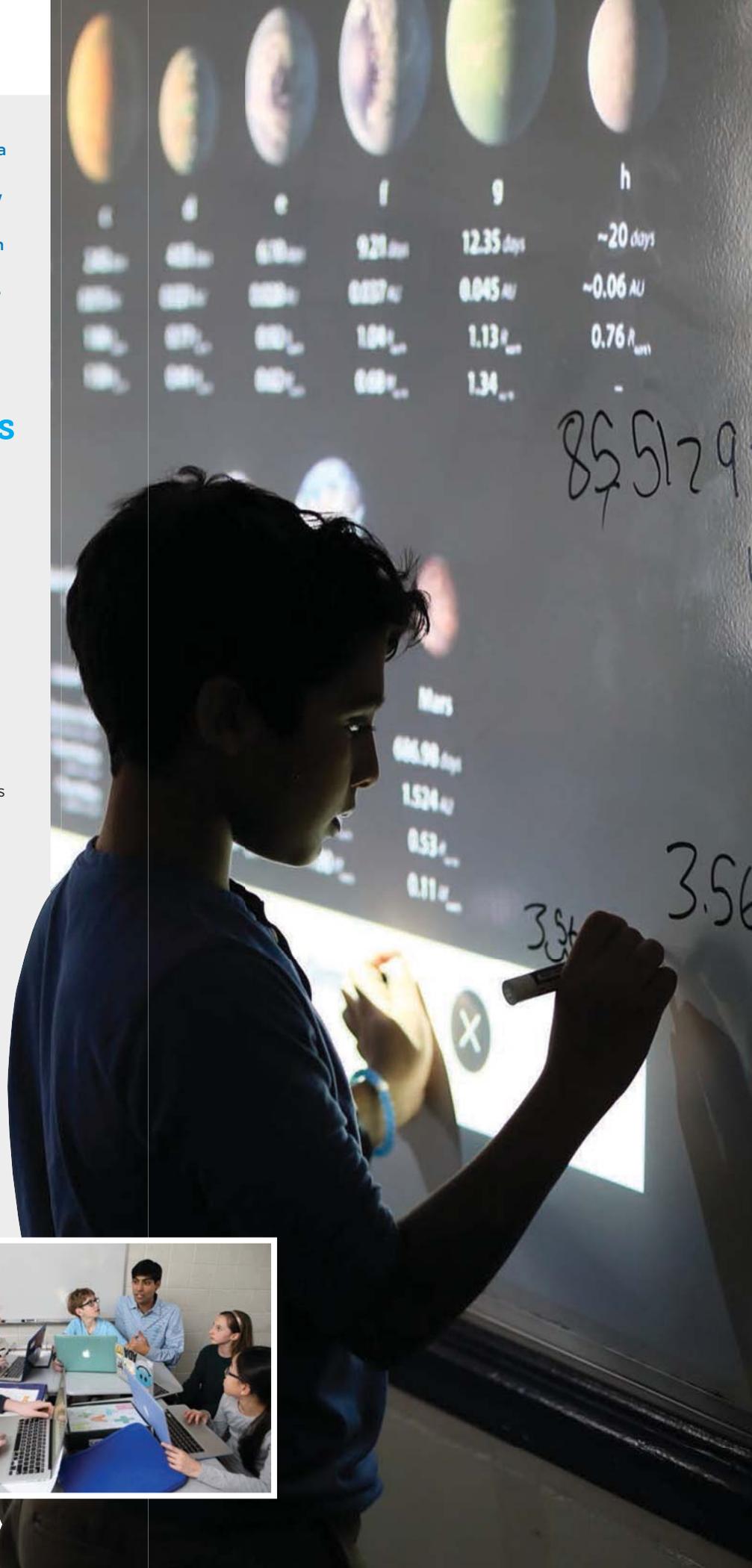
Digital Conversations in the French Classroom

A primary aim of the Newark Academy Languages program is to graduate students who have not only an appreciation for other cultures but also the ability to communicate with native speakers of other languages. "The best way to learn another language is to speak that language frequently," observes French teacher and incoming Languages Department Chair Mary Lysinger. "Building the verbal skills required for conversation in a new language requires sustained and guided practice."

While some technologies are detrimental to communication – one needs only to observe a group of teens texting instead of speaking to understand how digital devices can prevent personal interaction – the Languages Department is piloting a digital technology that encourages conversation in ways unimaginable in the traditional language classroom. That technology comes in the form of a networked software platform called Digital Language Laboratory, or DiLL for short, and it's changing the way language students interact with each other and with their teachers.

Once it has been installed on each student's laptop, DiLL software transforms the classroom into an interactive language lab, an environment that requires verbal participation from all students in response to teacher-generated exercises. DiLL records student responses,

enabling learners to listen to and to correct their speech. Teachers can review student responses and offer them feedback. DiLL also allows students to hold conversations in real time with other students via the DiLL platform – even if those students aren't in the same classroom.

"During a speaking exercise in a typical classroom, a handful of students might respond to a given prompt," explains Mary. In a DiLL classroom, on the other hand, every student answers. "Nobody can hide," adds French teacher Debra Ronan, who has used DiLL with her Middle School French students. "All students can practice their verbal skills without being put on the spot in front of peers." The DiLL pilot, which began this fall in French classrooms, has been a resounding success. This spring, Spanish and Mandarin students have begun to use and benefit from the technology as well.   **NA**