

# Student Voice

## *Hands-On Learning in a Technology-Focused World*

As a part of the high school class of 2023, I have experienced an education filled with technological advancements. In schools throughout my home state of New Jersey, teachers apply many innovative high-technology tools to aid learning. With more and more schools gaining internet connections, any type of learning is possible.

It is common practice, for example, for students in career and technical education classes to use virtual reality hardware to replicate firefighting and welding practices. Likewise, simulators recreate science and engineering labs that would be too expensive or too risky for a high school campus: Students can work with virtual particle accelerators and toxic chemicals without putting themselves at risk. Improved photo processing applications are integral to photography classrooms. Artificial-intelligence light controls in school theaters can read a stage and determine whether lights should be turned on or off. All in all, the classroom format and tools we use to learn have changed dramatically.

The rapid acceleration of new technology in classrooms can feel overwhelming at times. Students may feel pressured to incorporate new technology tools in their learning as well as to pursue career pathways that focus on developing and applying current technology. However, to amplify creativity and ingenuity in the absence of such tools, classroom time away from technology should be just as important. Students can still learn in a relevant, experiential way by writing diary entries outdoors during English class or holding mock trials in history class using books alone to support arguments with evidence. Instead of using artificial intelligence to build models of the solar system,

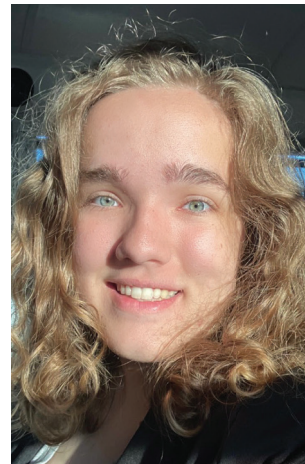
students could make a model out of items around the science classroom. Such activities foster innovation and build students' capacities to assess their environment and develop purposeful work.

Students doubtless will be using technology to solve challenges after they graduate. But as applications and search engines become more powerful, artificial intelligence more advanced, and hardware's computational power increases, no one set of tools mastered in today's classroom will likely be the key to future success. If schools can teach students how to innovate with and without the use of technology, they will be equipped to succeed in every area of study and every environment.

State boards can encourage learning with and without technology by altering learning standards to promote responsible technology use, using phrases such as "...analyzing primary sources," "using different tools," and "...through hands-on learning."

And they can help ensure equitable access to opportunities for students to use technology. In New Jersey, the Higher Education Technology Infrastructure Fund will provide \$55 million to institutions of higher learning to support such access. Such funding could be extended to K-12 schools.

I'm fortunate to have experienced deep learning with technology: computer emulators to learn cybersecurity, robotic human models to learn CPR, and virtual tours of historical sites. And without: going on "thought walks" to discuss literature, analyzing physical copies of historical artifacts, and writing poetry on a local beach. A balanced education can help every student achieve the greatest possible success. ■



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