Technology & Teaching Philosophy

I believe in the use of technology as a tool, but one that is as invisible as pencils and pens through its ubiquity and integrated into all facets of education in service of experiential learning that is both situated and embodied. Apprenticeships and mentoring programs are wonderful examples of this kind of learning. Within an educational setting at every level, technology can and should be employed to the advantage of its users in a broad variety of ways, whether they are students, teachers, staff or administration.

Technology is a tool for creativity and innovation. In classrooms, students publish e-books, design new products and websites, and digitally draw, paint, and edit photos and artwork. Using computers and webcams, they record videos and podcasts to publish and share their thoughts and creations with the world. They use technology to direct their own learning in meaningful and authentic ways by investigating real world issues that matter to them and working toward effective solutions.

Consequently, I believe in a curriculum that is anchored by the collaboration, critical thinking and inquiry approach of Project Based Learning and where a student-centered Plan-Do-Review process is instituted as early as preschool and carried through grade 12. I believe in robotics programs that begin at the early childhood and elementary school levels, continue through middle school and lead to high school classes in both robotics and programming. I believe coding should

be employed as a summative assessment tool where teachers ask the question, "How can students demonstrate what they learn in art, science, music, math, english, physical education, foreign language, or social studies via code (e.g., web pages/app development/ SQL database management) in such a way that adds to their own or others' knowledge and growth?"

I believe students benefit from turning to other students as mentors for specific topics or concepts, creating a collaborative environment where a student can demonstrate and enhance their own knowledge and skills by teaching others. Small group postmortem sessions following the completion of projects should be commonplace from elementary through high school, developing a culture that both recognizes and honors failure as inevitable when one is taking risks on the road to success, a process that helps build grit, character and critical thinking in students.

I believe students should regularly apply self-evaluations that include questions about how their learning fits both within their own personal learning journey as well as how it complements a wider social consciousness. As such, students use technology to explore the world beyond the classroom whether tweeting with experts, talking with authorities and influencers around the world, or engaging with people directly affected by global problems. In addition, data modeling and computer simulations help students learn in ways they could not without it. And while using technology, responsibility, independence

and collaboration with peers are but three of the skills students develop.

In my philosophy, teachers model lifelong learning by continuously molding, changing and adapting their classroom practice both to adjust to changes in the world (technological or otherwise) as well as to improve differentiation of their teaching, support, and guidance for students. Student tech crews are available to support staff as well as other students when classroom tech inevitably fails.

Recognizing that everyone is both student and teacher, I believe that 20% time should be implemented at all levels, including for staff. And while teachers offer professional development to students on their expert topics, similarly, students should offer professional development to teachers on their expert topics, keeping in mind that both strive for a goal of continual improvement. Teachers and students should interact with each other and with other schools, other teachers, other experts in specific fields via text, Twitter, Instagram, Facebook and even email. Likewise, administration should support release time (e.g., by having guest teachers available) for teachers to visit other classrooms to see how lessons are taught, how classes are organized, and how the process works best. I believe everyone should be able to have a presentation, lesson or activity recorded on video for later analysis and improvement.

I believe MakerSpace classrooms should have 3D printers available for rapid prototyping of projects and connect to library/media centers where

staff and students check out all manner of tech equipment to use in service of their passion projects. I believe students benefit from 1:1 access to devices at all grade levels, and that a laptop and a tablet should be supplied to each teacher because potential should not be limited by a lack of access. Rooms should be outfitted with smartboards or flat-screen computer connected TVs, all webcam enabled to facilitate connecting with experts worldwide. At the same time, operating separate video, audio and design studios recognizes that people develop, refine and share their learning in a broad variety of ways.

Technologies, both simple and complex, are necessary in my philosophy. Robust wifi access should be available throughout the school campus, both within and outside of classroom spaces to reaffirm the belief that learning can and should be ongoing everywhere. I believe a free expression of ideas can be encouraged by classroom walls that are covered both by whiteboards and by windows with lots of glass to write on. And because flexibility is a critical element of creativity, students and teachers should have height adjustable desks and chairs, and everything (even storage) should be on wheels for easy reconfiguration.

Technology is a tool for efficiency and productivity.

Using technology, the full range of administrative staff effectively manages mountains of data on a daily basis. Directors develop slideshows and infographics helping boards and staff better understand and implement policy. Principals use learning management systems (LMS) to stay aware of and communicate student issues quickly and discreetly with both parents and teachers. Counselors create everything from complex course

schedules to up-to-the-minute transcripts in student information systems in a fraction of the time. Human Resources, accounting and secretaries use LMS's and spreadsheets to track staff benefits and records, manage million dollar budgets, and provide valuable statistical reports. Meanwhile, teachers in classrooms use those same systems to track and share attendance data with both the office and parents.

I believe in the use of technology as a tool to extend education to the length and breadth of human imagination and vision. For while (thanks to technology) we know that we are made of the stuff of stars, we do not yet know all that we can or will become.

I believe in the use of technology.

Kevin J. Burgam
February, 2018