



EXPECT MORE FROM EDUCATION

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Technology matters

A message from Margaret Whitley

WHAT'S INSIDE

I am almost afraid to write an article about technology. It is mired in so much debate, particularly in relationship to children and school. At the same time it is an incredibly important topic to think about and discuss because of its capacity to consume society, and because our children are particularly susceptible to being distracted by it.

Let's start out with the premise that technologies in every form are "tools" that are very often used to communicate and, more frequently, to do things that previously humans did themselves - or were unable to do but wanted to because

they needed some type of edge that technology provides.

Technology is neither good nor bad. A hammer can be used by a carpenter to build something or it can be used by a vandal to break a window; the hammer is only a tool.

It all comes down to who's using it and for what purpose.

balance between what's best for the children developmentally, and keeping pace with the best educational tools as we help prepare them for real life. We must keep technology in that perspective.

Research supports that children, particularly under six (and to a lesser degree, those

under I2), benefit from real-life experiences. Hearing live voices and having physical contact with others wires our brain in a way to be effective thinkers and problem-solvers; not to mention helps them to develop into social and emotional beings. Children need to physically touch and manipulate to develop coordination and understanding. They need to see face-to-face reactions of

As a Montessori school, our goal is to find the balance between what's best for the children developmentally, and keeping pace with the best educational tools as we help prepare them for real life.

> others to learn how to socialize. This can take years; it is definitely not mastered by 12!

So the Facebook posts, the texting conversations ... or even Snapchat or Instagram pictures are not real life and therefore some of what gets posted is surreal—a mix of fact and fantasy. Can children make that distinction?

The other aspects of technology that are As a Montessori school, our goal is to find the difficult for young people to cope with are: its expansiveness, its permanence and its ability to feed into impulsiveness, which is why limited access is very important for children - and even many adults. We know, ourselves, how easy it is to get absorbed into screen time - whether it's a TV, a tablet or our phones.

However, on the other side of the debate, technology can also bring so much to the classroom; it allows students to access more information than ever and provides them the opportunity to learn how it can be used as an effective communication tool ... IF it's kept in check.

For the adolescent students who are moving

toward more abstract thinking, careful use of, and guidance around, technology can allow them to learn so much and effectively convey that learning to their peers, teachers and parents.

By tomorrow there will be new, more powerful apps and much more

content available through technology. But as adults, we need to learn to balance the use of these tools. We need to be educated.

We need to model for our children the behaviour that we hope they will adopt just like parents have done for centuries.

However, it's even more important today because the impact of our use of technology is different for adults than it is for children. •





Technology at Montessori Academy

ontessori Academy is not unique in the way technology has evolved in the organization," explains Wilma McIntyre, the school's technology consultant and new member of our Board of Governors.

"Often in smaller organizations, technology is implemented to solve an immediate issue or to fill a specific need rather than as part of a long-term strategic plan designed with sustainable infrastructure. This tends to create gaps in the technology infrastructure and/or compatibility issues," Wilma explains.

Together with the school's leadership team, Wilma sat down in 2014-2015 to explore the short-comings of the way the school had been doing things to see where we could make improvements that would benefit staff and students.

"The biggest issues for teachers were primarily in the area of technical support for their classroom laptops. Calls to the Information Technology (IT) support centre were time-consuming; issues often took several days to resolve; staff often had to deal with multiple agents and had to repeat the reason for the call with each new agent, all which interrupted teaching time."

Recommendations...

From a list of recommendations, the school decided to bring on a new IT service provider that would provide on-site technical support staff. This approach would:

- provide a personal relationship between the technical support person and the staff/teachers
- provide more timely problem resolution
- provide continuity both on an individual case basis as well as being able to identifying common technical issues within the organization
- reduce interruption to the classroom
- minimize teachers' involvement related to technical issues
- enable technical support staff to monitor the health of the infrastructure and general technology

To do this, the school engaged Com-IT, a social enterprise that supports Craigwood Youth Services, a local not-for-profit organization.

"Com-IT was a unique solution," Wilma explains, describing the new and innovative partnership. "While Com-IT provides the technical support services, its parent organization, Craigwood Youth Services, enables MA to leverage the knowledge and experience of a non-profit charity. The partnership model proposed by Craigwood is a symbiotic relationship where both parties have a vested interest in there being a mutual benefit, other than just an expense model."

Having an on-site IT specialist has made huge improvements to the process; foremost, it allows teachers and staff to focus on the students and work needed to run an effective organization.

Solutions for our students

As for the technology needs of the students, at the Junior High level in particular, there was the challenge of working multiple



Junior High students working closely both online and in the real world.

types of devices brought from home by the students.

The various makes and models of laptops had their own applications and issues that needed to be addressed on a regular basis.... Again this fell to the teachers.

In the end, the decision was to invest in Google Chromebooks and Google Apps for Education that would help teachers by allowing them a standard suite of technology and apps that they could better control and use in the classroom. (See Shawn's article, "Adopting a 'Technology as tool' mindset," on pg. 2.)

Introduced to Junior High in September 2015, the Google Chromebooks and Google Apps for Education have had a very positive impact on the teachers and students' daily activities, facilitating sharing and collaboration, which is so integral to learning in any classroom—especially in our Junior High program.

For more on how the Chromebooks are helping students, see the article "The student perspective" on page 4 from two of our Year 8 students. •

Finding the balance

How can we leverage technology without losing our connection to each other?

By George Rizkalla, Alumnus

iven the reputation of millennials as entitled, self-centred and "forever dependent," I'm slightly embarrassed to identify myself as one of *that bunch* that was born in the early '80s till the late '90s. As easy as it might seem to classify the entire generation into one crazy bucket, it should be noted that the eldest of these millennials—myself included—experienced a significantly different upbringing than the youngest of this group.

Perhaps the best term for the elder millennials would be "The Carphone Children." As kids, we witnessed times when computers were *present* but not yet ubiquitous... We had internet, but it was dial-up, and strict hourly quotas prevented excessive use. Email was *checked*, and not pushed, and the 2lst century phenomenon of constant interruptions wasn't experienced until our late teen years.

My first engagement with computers was actually in a Montessori classroom at 7II Waterloo St. in London. I have vivid memories of the three Commodore Amiga computers that ran an application containing "Aesop's Fables."

During my Montessori years, the computer was a consultation tool—a glorified encyclopedia, if you will. It presented the same data, but in a different form. One could see *more* pictures, and one could

find such pictures *faster*. But it wasn't until my high school years that technology had developed to a point where a lay person could really engage with a wider community of individuals and that it became as interactive as it is today.

As I began my studies in the field of Computer Engineering at the University of Waterloo, my peers and I looked to the internet to explain concepts that we struggled with as we complained (in our entitled, *millennial* way) about the lack of teaching skills of our professors.

(Now,) we are capable of communicating with and working with others around the globe with ease. One can watch live feeds of polar

bears in the Tundra and Orcas by Hanson Island. But one also cannot deny we are becoming increasingly accustomed to living life behind a lens rather than faceto-face with our immediate surroundings.

Modern technology has empowered our young people to know and see the far reaching effects of excessive consumption and pollution. They can read evidence of global warming and see images of the effects of poverty in their global community. But if they are not mentally and physically engaged with the people that sit next to them and with the nature that sits outside their front doors, they will never truly feel a call to action to save them.

If young people are never afforded quiet time without notifications and vibrations, they will never have the opportunity to engage in quiet reflection and concentration. As the millennial generation transitions into parenthood, it is perhaps we who will be challenged most to provide our children with a

balanced lifestyle that allows them to leverage the tools that we have built for them, while not denying them the thoughtful, reflective and experiential childhood that we were blessed to have. •



George Rizkalla

Adopting a 'Technology as a tool' mindset

By Shawn Butler

The absolute most important thing to understand about Junior High's use of Google Chromebooks (and other technology) is that we treat it only as a *tool*, much the same that a pencil or a rolling pin is a tool. The focus isn't on the technology itself but how it can best be utilized in our environment for learning and efficiency.

We believe that pen-to-paper is still the best way of doing things for many aspects of the Junior High program. School boards are far too quick to think that adding more technology into classrooms will increase student performance.

It doesn't. And studies now prove that. It would be the same as adding more pencils to the classroom and then sitting back and waiting for student performance to improve.

Ultimately, it's *how* the technology is being used that counts and the Junior High staff team is very careful to always be re-evaluating whether an assignment or project is best suited to an *old school* or *new school* way of doing things.

The decision to invest in a fleet of Google Chromebooks came after a very long period of careful research as to what would work best in our Continued on page 4



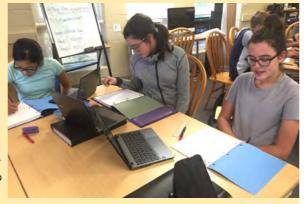
Adopting a 'Technology as a tool' mindset —continued from page 3

learning environment. And by "work best" we asked questions like:

- What will allow the students to work collaboratively?
- What will allow for the most efficient use of time?
- What will offer the easiest way for students to access their work?
- What will be the least distracting?

It took over a year to make the decision, but in the end there was no doubt that choosing Google Chromebooks, along with Google Apps for Education, was the right and only choice. (Sydney and Courtney offer perspective on that.)

Adolescence is also a crucial developmental period in which learning to be good digital citizens is vitally important. By having this technology, we are able to help the students become cognizant of their online



Junior High students using their Chromebooks

behaviour in a professional working environment. They, too, learn to adopt the "technology as a tool" mindset. We teach them that there is no difference between behaviour online and in real life ... it's all real life! After all, a Montessori Junior High program is ultimately about the preparation for real life, beyond high school and university.

These technologies will be ever-present in their lives, so it is paramount at this stage that the school and parents form a strong partnership in teaching them how to use these things as important tools in their life.

After all, a tool is just a device in your hand that allows you to more efficiently carry out a particular function. Whether it's a pencil or a Chromebook, the purpose remains the same. •

The student perspective: How Google Chromebooks are used in Junior High

By Courtney & Sydney Elgie, Year 8

he Google Chromebooks have been used for almost everything in Junior High, but mainly as a source for accessing Google Apps. These include Slides (like PowerPoint); Sheets (like Excel); Docs (like Word); Google Keep, a way of remembering tasks; and, most importantly, Google Classroom.

Google Classroom is a virtual classroom space that allows us to check for announcements and assignments on an ongoing basis. However, we are still strongly encouraged to use handwriting for our lesson notes, journals and a variety of handouts and assignments where handwriting is still considered valuable and important for our development.

The Chromebooks have improved our work by allowing us to hand in assignments whenever and wherever we may be. We are not only able to grow individually, but as a community. Google Apps can be used as tools to accomplish almost anything that Junior High has going on, from keeping track of money tallies for the Micro-Economy committee, to sourcing recipes for the Baking committee.

There are no more "my dog ate my homework" excuses simply because it is all stored in our personal 'cloud'. It has improved the speed of our work flow and helped us not only personally, but also when collaborating with our peers and teachers. We are able to share documents with others and have the chance to watch others plug in their input simultaneously wherever they are — from across the room, to halfway around the city, or even Australia!

Google Classroom prepares us for the future because of the exposure to technology in the modern age. We now have tools in our tool-kit to help us collaborate in the future — in high school and beyond. Overall, Google Apps for Education isn't just about new technology for the sake of it. It's about big ideas, creativity, collaboration and ultimately getting things done. •



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