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All Inventors!



EVENING PUBLIC LECTURE

What is technology  
doing to our minds  
and bodies?

MAY 26  
2016

11010 142 Street, Edmonton

**6:00 PM** Registration and reception  
(hors d'oeuvre and no-host bar)

**7:00 PM** Public lectures and discussions

**9:30 PM** Adjournment

To what extent are the smartphones, tablets and digital gadgets we cherish in our lives increasingly reshaping our minds and bodies?

Join **Michael Rich** and **Larry Rosen**, two of the world's leading researchers, in an evening public lecture to discuss the promise and peril of technology on health and the neuroscience and psychology of digital distraction(s).

### TICKETS

**\$10 each or six for \$50**

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# Bits & Bytes

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# Message from the President

**Ryan Layton**

**My** life changed one Christmas many years ago. I clearly remember being at my grandmother's home on Christmas morning and seeing a large present under the tree. As I examined that box I had no way of knowing how it would influence my life for years to come.

The Nintendo became a part of who I was as a young boy in a small town. This piece of technology spoke to me and allowed me to create new connections with peers who had also developed this same interest. I became so enthralled by these digital worlds that at times I would not hear or recognize anything outside of my television. This was my first experience with being technologically distracted.

Digital connection continues to be an important part of many people's lives today but, just as I learned many years ago, this can come with increased distractibility. A recognition of this fact has led to new regulations on the use of technology that have begun to permeate our society. Although these guidelines protect everything from etiquette to safety, the desire to maintain a constant connection can be very powerful. Even today I noticed a number of people texting and driving as well as checking their phone while in face-

As educators we must have a good look at the use of technology in our classrooms and schools and ensure that any tools used in our classrooms are pedagogically sound and that students are actively engaged.


to-face conversation with someone else.

It is important to note that many students experience technological distraction, either consciously or unconsciously. This can originate from technology brought into the classroom from home or tools that are used for school projects, such as Chromebooks, iPads, laptops and so forth.

As educators we must have a good look at the use of technology in our classrooms and schools and ensure that any tools used in our classrooms are pedagogically sound and that students are actively engaged. I would encourage you all to promote the healthy use of technology through the following strategies:

1. Help students recognize when they are distracted and what they are doing while they are distracted.
2. Discuss common distracting tasks that are performed on technology (social media, screen/message checking and so forth).

3. Establish guidelines for the use of technology in the class/school, such as
  - a. ensuring that screens are off or closed during instruction,
  - b. dedicating times during the day to disconnect and
  - c. providing technology-free zones.
4. Set an example of the proper use of technology in your own life.
5. Provide opportunities for students to increase attention by, for example, slowly increasing the amount of time students are required to focus on activities such as reading, writing or numeracy.

As we strive to both decrease distraction and increase attention, our schools will become more conducive to teaching and learning. In turn, students will be able to carry those skills beyond the classroom to find a better balance between staying digitally connected and being engaged in the concrete world around them. 

# Ever Thought of a Technology Sabbath?

**Gerald Logan**

Ever thought of a technology Sabbath? Here is why it will make you a better person.

If the thought of turning off your cell phone, iPad, computer and TV makes you feel a little uneasy, you are normal. Mark Bittman, writing in the *New York Times*, said he “woke up nervous ... was jumpy and twitchy.” Others who have tried an extended period of time without technology described it as an addic-

messages. While this has become the norm, is it good for us?

Sleep experts have suggested for several years that, if we want a restful night’s sleep, we turn off the screen 60 minutes before we try to go to sleep. Interestingly, MediaSmarts, a Canadian media watchdog, reports that 39 per cent of the teens asked in their 2013 study said that they sleep with their cell phones so they would not miss a text. Other experts suggest that the always-on media prevent us from ever truly resting and enjoying other activities.

the CBC Radio’s *The Current*. Turkle says that smartphones are affecting our relationships. The title of her new book, *Reclaiming Conversation: The Power of Talk in a Digital Age*, pretty much tells the story.

So what would you do with your time on a digital Sabbath? Bittman did things like read books, go for walks and learn to enjoy the quiet time.

What could we do with some unplugged time in our classrooms? I set up the school timetable with no activities outside the classroom in the morning. This meant that my teach-


If the thought of turning off your cell phone, iPad, computer and TV makes you feel a little uneasy, you are normal.

tion. I have noticed that any dead air at principal meetings has everyone with their phone out checking text and e-mail messages. I expect that any group over the age of 12 is the same today—addicted to media.

It has been reported for several years that we are consuming more hours of media in a day than we are awake, meaning we are “multitasking.” We listen to music or watch TV as we check e-mail or send and receive text

The constant bombardment by media has affected the length of our attention span. Reports of the worst-case scenarios say that we are able to focus for only a few seconds. Other writers say that it has affected our ability to form meaningful relationships.

If you are a long-time ETC member, you likely remember Sherry Turkle’s public lecture at Barnett House. Her research focuses on this very topic, and she recently did an interview on

ers and students could focus on learning reading and math with no distractions. I think it would be forward thinking for teachers, with the help of their students, to set up a schedule where there would be long periods of time in the classroom unplugged. During this time the students could work on collaborative assignments in which they would practise their conversation skills and work on developing relationships with their classmates. 

# Five Great Reasons to Get (or Update) Your Online ATA Account Now!

## ATA Staff

Please encourage all the teachers you know to get or update their ATA account. Here are some reasons why they should do this:

### 1. Receive bargaining updates

All collective agreements between ATA bargaining units and their respective school jurisdictions expire on August 31, 2016. As new negotiations get under way, regular updates and other information critical to keeping you informed of developments regarding bargaining will be posted in the Members Only section of the Association website. To gain access to the Members Only section, you must have an online ATA account.

### 2. Use ATA library online resources and databases

The ATA library has an extensive collection of books, periodicals, videos and other materials focusing on educational research and professional development for teachers. Library services and materials are available in both

French and English. An online ATA account is necessary to log in to our catalogue to reserve books or videos.

### 3. Vote in ATA elections


Provincial Executive Council conducts the business of the Association and is made up of 20 members, 18 of whom are elected by you. To vote in Association elections, you need an online ATA account.

### 4. Get no-cost ATA specialist council memberships

As a benefit of ATA membership, active members are entitled to join one specialist council of their choice at no cost. Active members must have an online ATA account to select and join the specialist council of their choice.

### 5. Print your own ATA member card

The Association is launching online self-serve membership card distribution. With an online ATA account, you will have the convenience of printing your own ATA member card from the Association website when you

need it. ATA member cards are useful when your identification as a teacher or member of an association is needed to attend events, receive discounts or be eligible for other offers from retailers and service providers. 



With an online ATA account, you will have the convenience of printing your own ATA member card from the Association website when you need it.

Visit [www.teachers.ab.ca](http://www.teachers.ab.ca) today.

# Qubit Technology

**Carol Tonhauser**


Canva ([www.canva.com](http://www.canva.com)), Smore ([www.smore.com](http://www.smore.com)), and Tackk (<https://tackk.com>) are three examples of user-friendly eFlyer tools. These tools have a variety of features, including ready-made templates and social media sharing. The tools vary in account membership options from free basic accounts to educational subscription memberships.



smore

tackk®

Looking to connect all your apps together? IFTTT (If This Then That) (<https://ifttt.com>) is a web service that aggregates your apps into one location and then performs actions based on the criteria you set in place.

Padlet (<https://padlet.com>) and Lino (<http://en.linoit.com>) are two examples of digital bulletin board collaboration tools for teachers and students. Users can post text content, images and video. Both tools provide collaboration opportunities, ideal for sharing content with colleagues and students. 



SUPPLIED


## Augmented Reality and Books

**Gail Reid**

There are some great educational books that use a concept called *augmented reality*—technology that places computer-generated images into the user's real world. At a recent Scholastic Book Fair I bought a book based on the Jurassic Park movies that uses augmented reality. *Jurassic World: Where Dinosaurs Come to Life* offers incredible facts about dinosaurs; the included app even uses images that bring dinosaurs to life—see the picture above to see how you can show the size difference between you and a dinosaur. The velociraptor and I are about the same size, even though it is standing on a table.

The publisher, Carlton Kids, produces other publications that use this technology, including *iScience*, *iSolar System* and *iDinosaur*.

There are even colouring books that bring children's colouring pages to life, for example Crayola Color Alive ([www.crayola.com](http://www.crayola.com)) and Disney Color and Play (available for both Android and Apple); both have multiple titles to choose from.

Another app that is ready to download is Quiver ([quivervision.com](http://quivervision.com)). Quiver's web page has colouring pages, many of them free, that work with the app and can be printed to use in your classroom. 



# League of Legends

**David Martin**

Due to the perseverance of two students, our school recently started a *League of Legends* game club (<http://na.leagueoflegends.com>). When I held the first meeting, more than 120 students, out of a student body of 1,600, came to sign up.

This caused a problem as I struggled with how to organize such a large group of students! However, I soon realized that a game club had something unique that most other school teams/clubs struggle with:



- I don't have to cut anyone, because I am not governed by the number of uniforms, playing time or the constraints of the physical world.
- All skill levels are welcome; beginners can play against beginners, and experts against experts.
- Students can play from literally anywhere in the world, and ultimately play against any other high school in the world.

As I chaired the first meeting, which started after the cheering and high-fives stopped, I heard one student say, "Finally! A place where us misfits can go." Immediately it hit me—most schools foster academics with honour rolls and awards; they encourage athletics with sports teams and ribbons; and they strengthen the fine arts with band and theatre productions. But what about the "techies"?

Now, I understand that most (hopefully all) schools try to give all students some connection to their community, but now I realized that at least one student had yet to have a connection with ours. The discussions that began after my introduction were mind blowing. "Can we have T-shirts?" "Can we make an official tournament?" "Can we play in the gathering area on the big

... after the cheering and high-fives stopped, I heard one student say, "Finally! A place where us misfits can go."

screen for all to watch?" And, of course, "Can I play during class time?" (which received a quick No!).

Some students in the crowd showed such excitement and enthusiasm it was near impossible to calm them down. We may have just hooked more students into knowing that school is actually pretty cool!

## How did this begin?

Two years ago, a student introduced me to the game *League of Legends*. As a gamer myself, I immediately got

hooked. It is free to play, so spending money won't give you an edge, and it uses team play. During the summer, as I was playing, a student asked me if we could start a club. I thought it would be an amazing idea.

During a weekend, two students and I came to the school and developed a Prezi, "The Benefits of Gaming." We presented it to our superintendent and the associate superintendent of learning, and they approved a day as a trial. I selected the lucky (and trust me—they felt extremely lucky) 20 students to play the game while the superintendent observed.

## The trial was a success!

The game club has been approved, and the plan is to have students create teams of up to five members and play after school on various days. We are now organizing our school's first

*League of Legends* tournament; prizes will be school wear, branded with logos of the game, and other technology.

I am glad that my students pushed me to start this club, because I have already seen the positive impacts it can have on the culture of a school. For information on the amazing benefits of gaming, I encourage you to read the article at [www.apa.org/pubs/journals/releases/amp-a0034857.pdf](http://www.apa.org/pubs/journals/releases/amp-a0034857.pdf). 📄

# Storytelling Through Technology

**Jessica Lysak**

When a digital communication is finished ... it should be remembered for its soul not the bells and whistles of technology.

—Benjamin Porter

**A digital story** is defined through the eyes of a Grade 6 student:

*A digital story is a creative way to use technology to tell a story. A digital story has many different components to it that need to be done before it is complete. A digital story can be interactive and enjoyable for an audience to watch.*

In the fall of 2014, Division II students had the opportunity to experience writing a curriculum-based story using technology, music and digital images. The themes chosen for the stories are what sparked the interest of the children's masterpieces. Grade 4 students wrote about one of six Albertan highlights that stemmed from the past, such as the Calgary Stampede or the Royal

Tyrrell Museum. Grade 5 students wrote a story based on one of the regions of Canada, such as the Arctic or the Cordillera. Grade 6 students wrote a story based on the children's United Nations rights to freedom, such as the right to an education or the right to choose your own religion or belief.

*I liked how we got to choose what to write about for our digital stories. By having a choice, it allowed me to choose a topic that I was interested in and wanted to learn more about.*

—Grade 6 student

**The first step** of this project was to expose the children to the different possibilities they had to choose from for their writing piece. Then they were responsible to choose one specific topic. Once the topics were chosen, the students were asked to create a web. The web had to include things they knew about and wanted to learn about, and why they chose their specific topic.

*Choosing my topic helped bring my interest up because I got to choose a topic that I liked and not just a random topic. When I was told we were doing digital storytelling, I wasn't looking forward to it because I am not very good with the computer. I liked creating a web with all of my ideas because it helped me stay organized.*

—Grade 4 student

**Step two** had three different parts to it. The children started researching their specific topics, created story-

boards for their stories and started writing. Some students found this process easy, whereas other students didn't.

*This was hard for me to do because I couldn't think of a lot of ideas for my story and had a hard time finding ideas that I wanted to include in my story when doing my research.*

—Grade 4 student

Before the students started writing their stories, they created storyboards with six to eight frames. They used diagrams and simple sentences on their storyboards. Once the students' storyboards were complete, they started to write their stories. As the students were writing, they were required to think about their audience and how to captivate their interest. Did they want to include beginning or ending messages about their stories or include sound effects to represent specific parts of their stories?

**Step three** was to allow for peer and teacher feedback. As the stories were read, descriptive words were added to the stories to allow for more detail and excitement throughout. Once the students completed their final drafts, they recorded their stories on the computer using GarageBand or Audacity. It was interesting to watch the students record their stories. Some students recorded their voice once and were happy, whereas other students tried numerous times until they were satisfied.



*Recording my voice was my favourite part of the project because I got to add expression in my voice and different sound effects.*

—Grade 5 student

**Step four** gave the students time to explore and experiment with the program GarageBand. Before the students were allowed to add music to their stories, they were required to think about "What kind of musical instruments might enhance my story?" "Is it necessary for me to have music playing throughout my entire story or just certain parts?" "How am I going to incorporate flow with my story and music?" Some students decided to have music playing only at the beginning of the story, whereas other students decided to have music playing throughout their entire story. This part of the project was a lot of fun for the students because they experimented with different musical instruments and enhanced their stories with a musical component.

*GarageBand was my favourite part of the project because it allowed me to have a different meaning to my story by adding the music. My family liked the music I chose to add to my story and felt it played an important part of my digital story because of how I changed my instruments as the story was being told.*

—Grade 6 student

**Step five** was to look for images that related to the students' stories. This was a difficult step for a lot of the students as they wanted to add cartoon images or just couldn't find the right image to represent specific parts of their story. A lot of teacher guidance was used during this time.

*I found this step to be the most difficult because I couldn't find the right images for my story. I knew what kind of images I wanted to use, but just couldn't find the right image to make my story make sense. I asked my friend for a lot of help during this part of the project.*

—Grade 6 student

Students were asked to incorporate a minimum of 10 images in their stories, and the images had to reflect their stories.

**The final step** was using iMovie to piece everything together. Most students found this process easy, as they were familiar with iMovie from previous years. During this step, the students needed to include their voice recordings, images and music in their digital stories.

*The most difficult part of iMovie was trying to get my images to match up with the story. Some of my sentences were longer than I thought they would be, and that made me have to make my images longer. Sometimes I had to change the timing of my images lots of times before I was actually happy with the way it looked and sounded.*

—Grade 5 student

**As a concluding activity**, the Division II students hosted a film festival for their families to celebrate their amazing work. 📺

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*Editor's note: this article was originally published in the journal of the Fine Arts Council, A Fine FACTA, volume 15 number 1, fall 2015.*

## CALL FOR ARTICLES

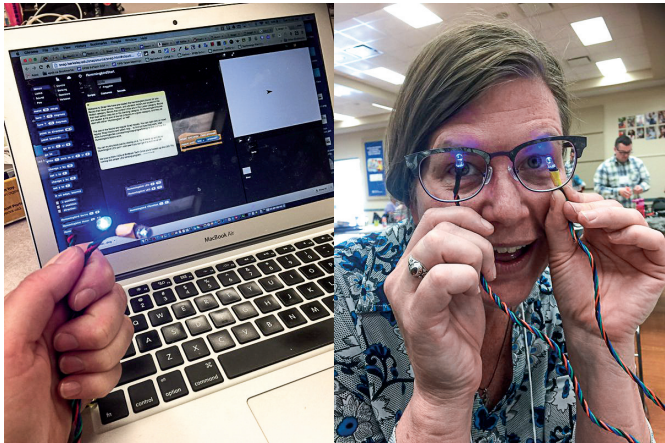


ETCATA would love to publish articles by its members.

If you attend a wonderful technology conference, have a great review of an application (software, Web 2.0, tablet and so forth) or would like to recommend an article, contact either **John Korassa** (john.korassa@ecsd.net) or **Gail Reid** (greid@esl-almadina.com).

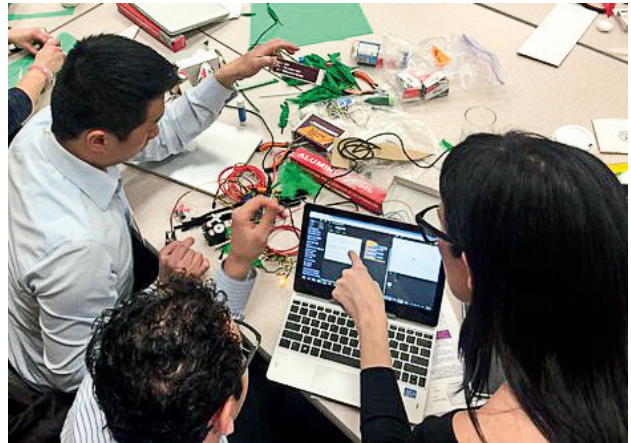


# We Are All Inventors!



RHONDA JESSEN@RLJESSEN

Success - we used Snap to get the LEDs to light up for the bird's eyes—teamwork was needed. @janetbell #etcata



DANNY MAAS@DANNYMAAS

Angry Birds Yoda taking shape at Invent to Learn Maker PD challenge. @smartinez & @garystager #etcata #makered

## Nicole Lakusta

Over four days, with two-day stops in Edmonton and Calgary, Gary Stager and Sylvia Martinez, authors of *Invent to Learn: Making, Tinkering and Engineering in the Classroom*, worked with 200 educators, administrators and support staff.

The workshop gave participants an opportunity to understand the research behind making and inventing, and then gave them hands-on project-based learning experiences in trying out various robots, tools and resources to make and tinker with. Examples and samples were

shown throughout of how students are engaged in complex problem solving with new technologies. There were also many opportunities to see where the activities would fit into the current Alberta curriculum and competencies and the Learning and Technology Policy Framework (LTPF). Making with a different number of low- and high-tech construction materials, computing devices and software (such as Snap and Scratch) had the participants thoroughly excited, engaged and enamoured with the process.

Even if you did not participate in one of the Invent to Learn workshops,

ETCATA members can still obtain benefits from these sessions by

- speaking with a colleague who attended the workshop,
- contacting an ETCATA executive member,
- reading the Storify summaries from Edmonton (<https://goo.gl/SQo3h4>) and Calgary (<https://goo.gl/rYyQCd>),
- reading *Invent to Learn* or
- diving into the resources mentioned in *Invent to Learn* on the website <http://inventtolearn.com/resources/>.

Enjoy tinkering, making and learning!

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