

I've been participating in [Learning2Pivot](#) with doctors [Bryan Sanders](#) and [Verena Roberts](#) and many others online during this pandemic emergency. The people in these talks make a point of trying to see the forest for the trees, which is refreshing after another week in the trenches of a diabolically delivered remote learning program. One of the main ideas in these meetings is to try and work out a pedagogically credible way forward during pandemic emergency remote teaching, so I'm encouraged to give it a go.

I've been struggling with our response to COVID19 since it started). Leveraging our considerable resources to pivot effectively is at odds with much of what Ontario has done in this crisis, but there is still time to build capacity and create a more resilient, digitally transliterate system that would not only work more efficiently face to face, but could also handle remote learning much more effectively.



When I started thinking about the logistics of actually pivoting to an effective remote learning strategy, I was looking for a way to harness the power of the digital technology at our disposal while also acknowledging the digital divide and the skills gap that has resulted from our refusal to acknowledge that digital fluency is now an integral part of literacy; this 'transliteracy' includes the many emerging mediums in digital communication. We must apply the same rigour to learning the digital aspects of transliteracy that we do the traditional concepts we fixate on. If we did, we could rapidly develop a much more effective and relevant education system.

Ontario had a mechanism for integrating digital technology called [OSAPAC](#) (Ontario Software Acquisition Program Advisory Committee), but funding was recently cut to it. Instead of strengthening the very thing that could have provided direction and resources and would even help make elearning more of a possibility in Ontario schools, our educational mismanagement has cut that and doubled

down on the [Educational Quality & Accountability Office](#), whose only function in this crisis has been to cancel everything they were doing and provide no accountability at all.

What I'm suggesting below might even be attempted as a zero cost option by taking the money being poured into an accountability office that doesn't account for anything and spending it to recreate and expand OSAPAC into the Education Relevancy & Resiliency Office. Their job would be to put an end to the corporate branding of educational technology in our system (every board is now a Microsoft or Google board) and restore and expand Ontario's centrally managed and vetted collection of educational technology tools, while also ensuring that the system develops the capacity to effectively use them. ERRO's first job would be to make [this](#) happen by developing platform agnostic access to a vetted ecosystem of digital technology.



# Ontario Education and Industry Best Practices Around Technology Implementation

**1. Proper planning prevents poor performance**  
You need to understand who the stakeholders will be when it comes rolling out your new technology, and what the best strategy is to ensure a seamless transition. Be sure to ask questions first, who will be the most affected by this change? What is your roll-out time frame? How will this roll out affect the day-to-day operations of your business? How can this effect be minimized? Plan for change and manage expectations. Setting short-term goals is also a great way to ensure you stay on track.

**2. Communication is key**  
From key stakeholders right through to your new interns, everyone must know exactly why the company is changing and how this aligns with the overarching company goals. The sooner you can get people to buy in, the better off you'll be. Be sure to arrange meetings and talk to individuals or departments who you feel might be most anxious about the new technology.

**3. Get your leaders on board**  
This is perhaps the most important step of them all. Your leaders are the lifeblood of your organisation and if they're swimming against the current, it won't be long before you have an army of unhappy staff. Ensure that your leaders share your vision, understand the benefits of implementing new technology and are vocalizing this with staff day-to-day. They should be sensitive to how other staff are feeling and reiterating the clear advantages and intended outcomes of your upgrades.

**4. Train the house down**  
Don't throw your staff into the deep end. Provide all end users with enough training to ensure they're masters of the new technology. Be sure to mix it up and make training fun. Modules, videos and interactive training sessions will all go a long way to helping staff feel confident and positive about adopting new technology. Remember not everyone learns at the same pace. Provide one-on-one training for staff who need it.

**5. Build an innovative culture**  
Your next technological change won't be your last. So it's important to build a culture where your staff have a 'no fear' approach to change. Be agile and be ready if you want to stay competitive. Whether you train your staff in change management or build this into your recruitment process, you want to be a company where innovation is a way of life.

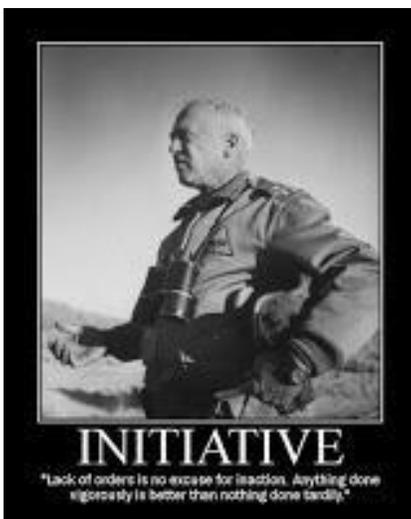
It's important for the future of any business to embrace technological innovation. Once you understand the best practices for change management, adopting new technology will be just another day in the office.

**If remote learning were a software systems upgrade in a business, Ontario Education would be getting fired.**

[I worked in IT for a long time](#) before I became a teacher and was reading about current best practices around upgrading software integrated into a business. These kinds of short term contract were my bread and butter for a while in the late nineties and early zeroes, and the do-or-die, it must work-ness of these upgrades made them a pretty edgy area of IT to work in. When you're upgrading hundreds of machines in [AstraZeneca's](#) Mississauga facility, and millions of dollars in lost production are on the line if you mess it up, the process you follow must be driven entirely by need and effectiveness.

Doing this wrong could cripple a business so it tends to be run with a ruthless effectiveness. When we were doing a JD Edwards upgrade at Ontario Store Fixtures in the mid-nineties, they brought in a retired marine colonel to oversee the update because they needed someone who did not operate in a failure optional manner. Doing this right requires a lot more than just making sure the tech works. It requires training and management buy in.

[That article](#) highlighted five vital things you need to do if you're not going screw up a critical business infrastructure upgrade and ensure it's going to work. We've systemically ignored all of them while rolling out remote learning in Ontario this spring.



Proper planning evidently didn't happen before schools shut down because we needed a [three week freeze on everything](#) before any directions were forthcoming. Losing initiative in a situation like this was damaging. What eventually emerged was a poorly supported off loading of all responsibility for this onto teachers in a system, many of whom had neither the technology nor the experience with it to do it well.

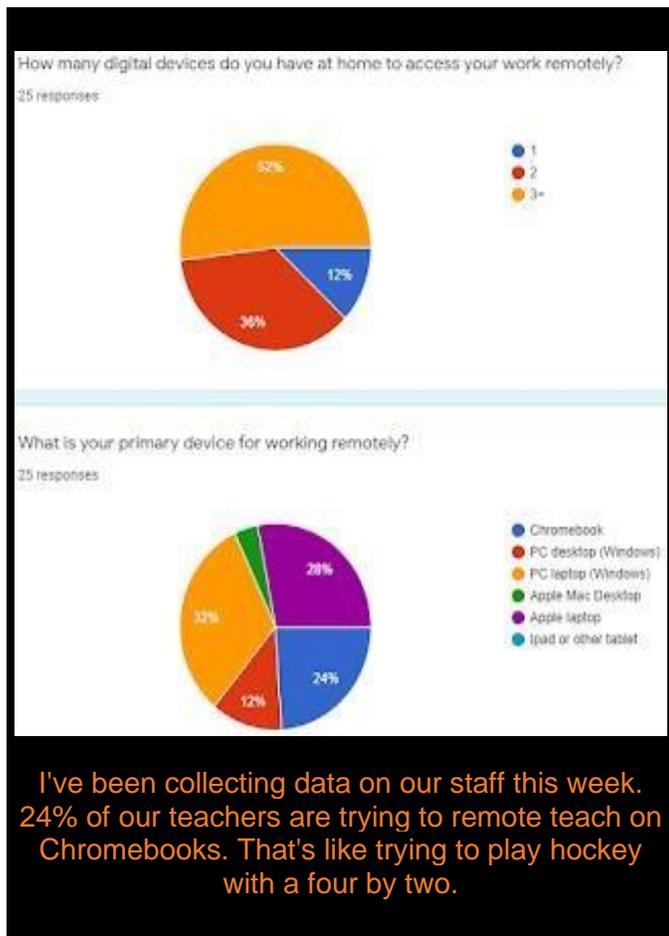
There continues to be little or no communication between partners in the system. We are constantly surprised by the latest change in direction. Leaders weren't on board because they didn't know there was anything to board - any planning appears to have been done privately and then dropped on boards to try and make happen with little or no support.

The digital transliteracy needed to remote teach in online spaces has never been developed in staff. The digitally fluent ones have had to develop it on their own time and with their own resources. They've had to fight to attend events like the [ECOO Conference](#), which had its funding stripped this year much like OSAPAC's was previously. We've systemically devalued digital transliteracy and this has resulted in an atrophied response during an emergency.

Our education system has some tough, resilient educators who keep fighting to build system integrity and efficacy, but it's hard to innovate when you're just trying to find enough space to breathe. All that aside, let's fix this situation and pivot to a system that has the capacity to remote learn effectively for as many staff and students as possible. Here's how to do it:

### STEP 1:

Pull the plug on remote learning: [As Nam Kiwanuka suggested on TVO](#), it's time to stop playing cat and mouse with parents, students and educators and end this round of remote learning. Use May to wind down remote learning, but let's not waste that time. It can also be used to collect actionable data on [the digital divide](#) in our staff and students.



A digital divide in staff you say. Surely, they all have digital technology at home to do this. Well, they don't. [Digital transliteracy in the general population is appalling](#), and most teachers follow that trend. Many don't have the tech needed to remote teach from home or the digital transliteracy to leverage it effectively.

Instead of trying to assess who has what during an emergency, why don't we keep information on access to digital technology for all? Knowing this would go a long way to explaining why students (and staff) who struggle in school tend towards poor use of digital tools.

How can you be expected to be fluent on a device when you don't have access to it? This is akin to being angry with a student for not learning to read and write when they don't have access to any reading or writing material.

We really have to expand our sense of literacy to include emerging communications mediums. The printing press fundamentally changed what literacy looked like in the fifteenth Century, our [digital](#)

[revolution](#) is doing the same thing now, we simply need to recognize this expanded idea of literacy and act on it.

While we're wrapping up remote learning 1.0, restart OSAPAC and gather all the boards together. End the corporate branding of school boards and make a centralized agreement with all

educational technology companies that gives access to vetted, secure online tools to everyone. Engage the various boards who have all specialized in different systems and bring them together to create a merged digital ecosystem of tools. This would have the added benefit of syncing familiarity with systems for students elearning outside of their local board. For the few who have developed best practices around video conferencing and other problematic applications, leverage that experience so we can establish a coherent, viable, province-wide culture around its use in education.

## STEP 2

Instead of cancelling PD make it mandatory for everyone in the education system. June becomes digitally transliteracy training month. Re-orientate on logistics for closing the digital divide in our staff and actually train them in accessing and effectively using a wider range of digital tools that aren't brand specific.

# ACTION TIMELINE

**MAY:** To do list while we still have contact with some students

- finish up Remote Learning 1.0
- collect as much detailed data as possible on digital divides in student lives
- collect data on digitally literate educators and have them begin planning a COHERENT, CONSISTENT AQ that ensures all educators are operating to a reasonable standard of digital transliteracy

**June 2020**

**STAFF TRAINING**

SUN	MON	TUE	WED	THU	FRI	SAT
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

**Mandatory Ontario Educators Digital Translteracy AQ**

A 4 week mandatory PD with testing to ensure that all educators are operating at minimal standards of digital translteracy

**July 2020**

SUN	MON	TUE	WED	THU	FRI	SAT
		1	2	3	4	
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

**SYSTEM LOGISTICS**

Based on data collected during Remotelearning1.0 from staff and students, ensure all members of Ontario Education have access to technology & connectivity, and enable it if they don't.

**August 2020**

SUN	MON	TUE	WED	THU	FRI	SAT
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

**A PLATFORM AGNOSTIC DIGITAL ECOSYSTEM CENTRALLY ADMINSTRATED TO ENSURE PRIVACY & SECURITY IS LIVE FOR ALL ONTARIO EDUCATION PARTNERS TO ACCESS**

If we experience a second wave of COVID we're ready to leverage the technology that exists with trained staff on a system designed to make best use of our DIGITAL ECOSYSTEM

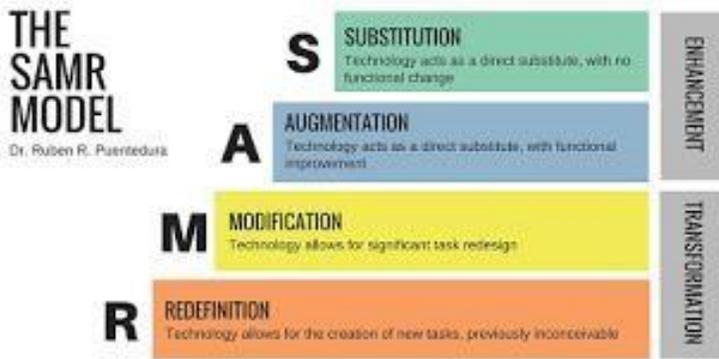
**ACCESS TO TECHNOLOGY**

RESTART OSAPAC & STANDARDIZE A NON-CORPORATION SPECIFIC TECHNOLOGY ECOSYSTEM FOR ALL SCHOOL BOARDS IN ONTARIO

**THERE ARE NO MORE GOOGLE BOARDS & MICROSOFT BOARDS - ALL BOARDS HAVE FULL ACCESS TO ALL EDUCATIONAL SUITES OF SOFTWARE WHICH IS CENTRALLY ADMINISTERED BY THE MINISTRY TO ENSURE PRIVACY AND SECURITY**

this is continually updated to ensure relevance with emerging technologies

This isn't an optional training, it's mandatory. Everyone is on the clock and we have their attention, time to fix years of [lazy assumptions](#) and develop digitally empowered transliteracy in all education staff - that's everyone from admin support to teaching assistants to building maintenance - everyone becomes minimally fluent in using digital tools to communicate and operate like the rest of the world expects in 2020.



For teachers this is a pedagogically driven process. Best practices have been developed by digitally transilliterate teachers for years now, and it's mostly ignored. When digital technology is pushed into a resisting teacher's practice (and that's most of them) it's usually as a substitute (use Google docs instead of photocopies - it's cheaper!). But digital tools don't just offer substitution, they offer a different way of doing things.

Watching teachers all struggling to gain access to video conferencing simply so they can digitally recreate the out of date lecturing they habitually deliver in school was a fine example of the S in SAMR.

Static lessons and rote student work that is easily plagiarized goes away when educators realize that they are no longer the font of information; we are living in an information rich age. Students don't need to wait for you to pontificate on a subject, credible information on it is all around us. By pivoting toward student centred learning where teachers are showing students how to access this freely available information rather than disseminating it means a fundamental shift in pedagogy from a rigid, 20th Century, information poor world to the world we live in now. Over this month teachers would not only learn basic technical skills and familiarity with digital learning tools, but also consider a more viable 21st Century pedagogy.

There would be testing in this **mandatory training** that would be pass fail. Educators who don't participate or cannot demonstrate mastery of the basic principles in digital transliteracy would be expected to retake the course in the summer - they're not teaching in the fall without it - this is what a 'robust' response to an emergency would look like.

### STEP 3

Spend the summer building remote learning capacity by working to minimize the digital divide while developing a vetted digital ecosystem for all school boards. There are no more Microsoft boards and Google boards, everyone is both, and more. OSAPAC is back and developing a centralized repository of digital tools. This is an ongoing, responsive process where educators request access to emerging digital tools and OSAPAC does what it always used to do and get Ontario education access to secure, vetted and relevant technology at a wholesale price.

Over the summer staff would have access to an increasing pool of online learning tools as well as being delivered the technology they need to proceed with an effective remote learning program when it's probably needed in the fall.

July and August also gives us time to develop an integrated, grade specific curriculum that focuses students on digital transliteracy. The goal would be to develop a two-week intensive curriculum that gives students the awareness they need to operate with digital tools in a less habitual learning focused context, and to be more mindful and coherent in their use of educational technology. So much of our expectations reside in 'digital natives' familiarity with technology they habitually use for entertainment. We'd no longer leave digital transliteracy to chance and wishes.

## STEP 4

Leverage our transliterate school system. In September, if we're face to face, we still proceed with the opening digital transliteracy crash course, because we don't know if there will be a second wave and remote learning returns. If it does not, we have a school system that has taken real steps towards being literate in a relevant way, which will also improve our learning efficacy while face to face. If we do end up remote learning again, we've actually laid the groundwork to do it with a degree of effectiveness we can only dream of at the moment.

### STEP 4.1

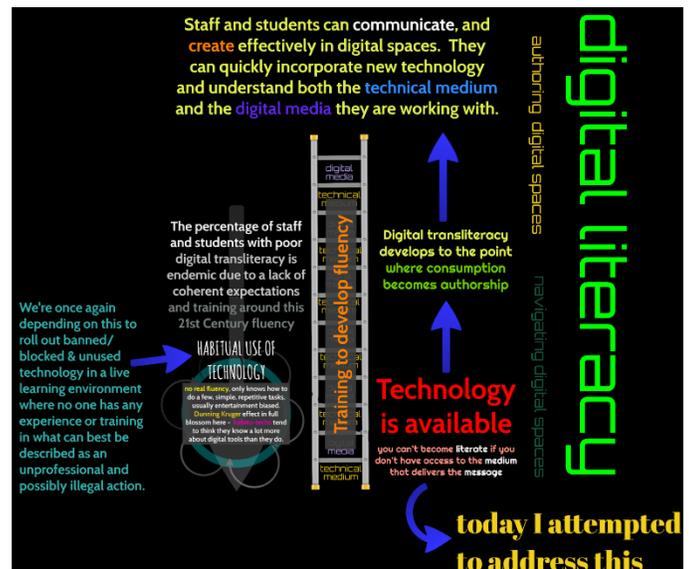
Have a differentiation plan in place for students (and staff) who are unable to effectively leverage digital tools remotely. These people are the ones that socially distanced in-school learning is prioritized for. We don't approach this by throwing an elearning blanket over everything. We differentiate and use our school infrastructure for staff and students who need it, while preventing COVID19 spreading vectors. Student need comes before ease of management.

## STEP 5

Continue to develop transliteracy with PD for staff that allows them to explore and share online, beyond the walls of their classrooms and schools. Make a point of connecting educators to PLNs (professional learning networks) that have existed online for digitally fluent educators for years now. Expect digital transliteracy in our staff and encourage its development. OSAPAC becomes a central repository of digital best practices as well as being a place where educators and students can find the tools they need knowing that they are safe to use. This empowered OSAPAC provides relevancy and resiliency in digital transliteracy while also empowering other groups like [ECOO](#), [ACSE](#) and [OASBO](#), all of whom have the history and technical capacity to make Ontario education a world leader in digital transliteracy. Linking up to existing programs like [TVO's TeachOntario](#) could provide online gateways to this material.

## STEP 6

Continue to develop transliteracy in our students by inserting skills specific, focused transliteracy learning throughout the curriculum. Make digital transliteracy an inherent part of literacy training in elementary schools. Include basic technical comprehension and skills based digital media development for all students (and staff). Create a mandatory digital literacy course in high school that all students must demonstrate proficiency in - better yet, integrate digital transliteracy into literacy, though k-12, though expecting English teachers to shoulder that burden alone isn't fair. We use digital tools (badly) in every aspect of schooling now. Imagine how much better that could be if a majority of staff and students had more than a habitual grasp of them.



## STEP 7

Expand ICT networking infrastructure out of our schools by exploring emerging technologies like [Google's Loon Project](#) which can provide wide-spread 3G internet connectivity for everyone. In coordination with the federal government, make Canada's vanishing digital divide the envy of the rest of the world, and then design education systems that teach and leverage it effectively. Continue to explore and expand Ontario's OSAPAC to include emerging technologies as they become available on a collaborative, province wide scale.



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Did we hit that industry checklist for a successful technology integration?

Proper planning preventing poor performance ✓

Communication is key ✓

Get your leaders on board ✓

Train the house down ✓

Build an innovative culture ✓

Yes! This is a plan designed to build capacity and take on the challenges of remote learning, which range from technology access to digital illiteracy. The biggest irony is that many more students (and staff) would be able to participate in elearning in order to diversify learning options for students. Instead of demanding mandatory elearning out of nowhere, developing digital transliteracy in the system would cause it to happen anyway.

We have the people and we have the tools to make this happen. It is a testament to our short-sightedness that it has taken a pandemic emergency to cast such a harsh light on this blind spot in our education system, but it's a blind spot that has been there for decades. Rather than being driven into the ground by this emergency situation, let's use it to pivot to a more effective, agile and relevant understanding of literacy in 2020 that gives us the tools and skills to teach and learn even when the going gets tough.