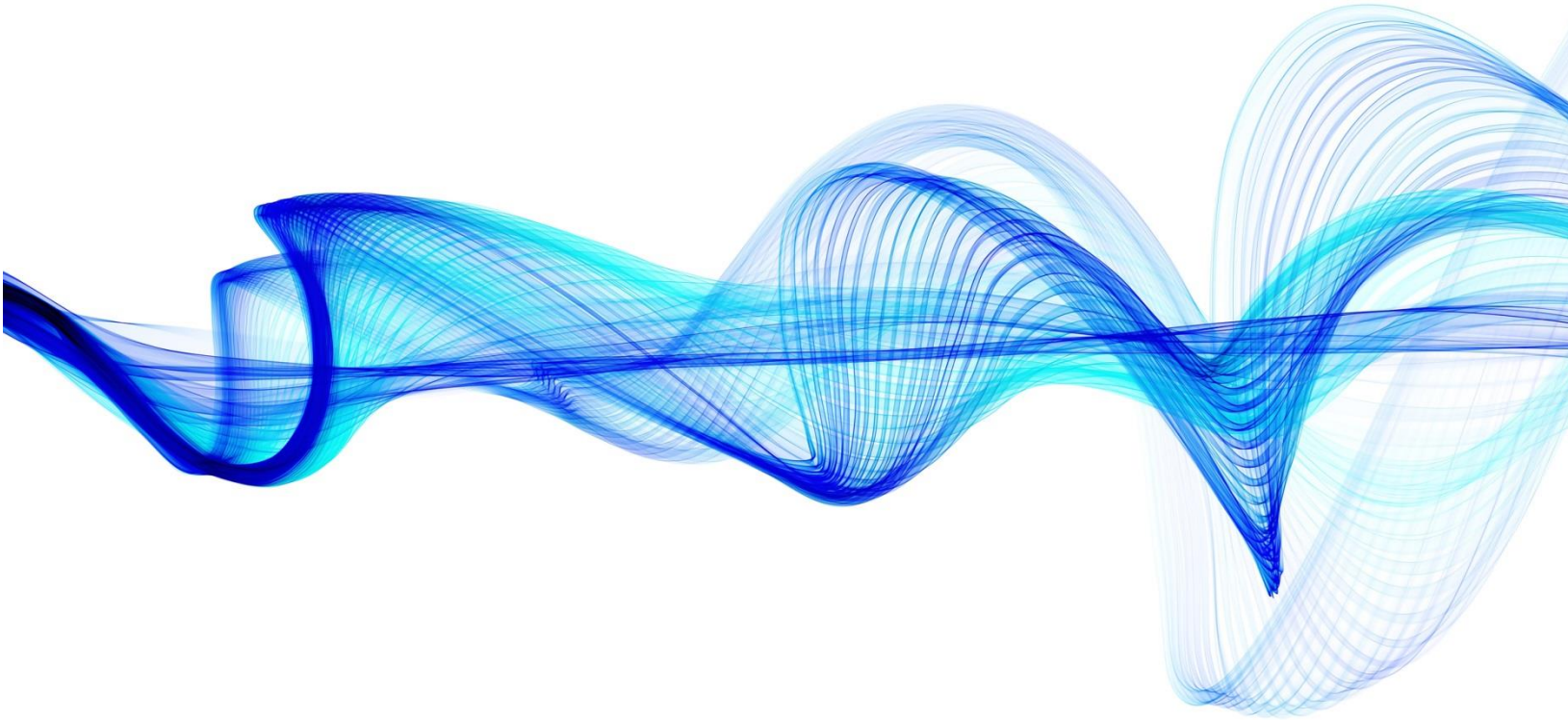
# The Future Is Here!



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*"Don't get trapped by the past, because the past is not going to be your future."*

*Richard Worzel - March, 2017*

# Introduction

In March 2017, futurist Richard Worzel was invited to speak at Fanshawe College, in London Ontario, as part of their REDTALKS series. The topic for this session was "Re-Imagining the Future of Education." As a futurist, Richard Worzel claimed he doesn't predict the future, he plans for it. With this lens, we were enthusiastically listening for nuggets of information that could inform literacy programs on how to plan for the future. We were surprised that, as much as he talked about a 50-year forecast for education, much of what he anticipates for the future is already part of literacy programming today.

## Technology

Mr. Worzel explored potential advancements in technology. According to him, in the future there will be large-scale use of robots. Anything that requires repetition will be done by a robot. Take your mind out of the factory and think about the implications of that statement. Could you envision a robot standing at your stove, cooking in the kitchen? Does this sound doable? Not only is it doable, it's being done! Mr. Worzel showed us slides of test kitchens where this is already happening. He also spoke of the future of quantum physics and artificial intelligence. He suggested that we will soon be wearing glasses that act as computer monitors, much like prototype for Google Glass. What's next? Those computer-embedded glasses will eventually be replaced by contact lenses.

Computerized personal online assistants such as Siri, Echo and Cortina will have the ability to read your body signals to gauge and interpret your reaction to online information. Did you understand it? Was it the information you were looking for? Do you need more information? Again, this kind of capability is not 50 years away. Its development is already in progress.

## Aging and Health

Mr. Worzel claimed that life expectancy will increase in the next 20 years by 50%. He attributes this to medical advancements that have resulted in the ability to regenerate cells and recreate body parts. If we can anticipate that we might live vibrantly until 120 years of age, Mr. Worzel suggested that people won't retire at 65 years of age. They may, however, want to retrain and change careers. They will remain part of the workforce, if only because they can't afford to be retired for almost half of their life. This will directly affect our local labour market.

There was a caution sent out to provincially funded institutions. As the Boomers now are collectively aging, we can expect that a much bigger piece of the funding pie will go towards health. Our speaker stated that the Ontario government will be looking at what programming to cut in an effort to redirect finances towards the healthcare portfolio now, more than ever. If educational programs are no longer meeting the needs of society, especially as they relate to the workforce, they will be seen as irrelevant. We can draw our own conclusions from there.

## Technology, Economy and the Workforce

When Mr. Worzel applied futurist thinking to the workplace, the potential trends to emerge in 50 years can already be seen on our horizon. In a global economy, competition between humans will be critical. He claimed, "…we will be in a state of ruthless meritocracy." Wikipedia explains that in a system of meritocracy, "Advancement is based on performance measured through examination and/or demonstrated achievement in the field where it is implemented." So when forecasting what successful integration into the workforce will look like, we see that the employees will need the ability to absorb, interpret and react to constantly changing information. This needs to be combined with the ability to adapt.

To emphasize how invasive technology will become in the workplace, we were shown pictures of an automated take-out burger production line. Automated production lines take up less floor space than human staffing does, and costs are minimal after the initial investment. What fast food place wouldn't seize an opportunity to have automated production and customer service? Technology will not only replace entry-level jobs, but jobs *at all levels*. In a statement that hung eerily in the air, Mr. Worzel emphasized his point by saying, "People underestimate the rate that automation is eating its way up the food chain."

Thinking through the implications of the impact of technology on the workforce, and seeing technology as our biggest workplace competitor, we must ask ourselves. “What can we offer the labour market?” Mr. Worzel pointed out a few unique qualities that humans have, giving them an edge over technology. He stated, “The more automation we have, the more soft skills will be important. As automation rises, humans will fall back on soft skills and THAT is where we need to be learning.” Already, we are seeing a request from employers for staff that have the ability to work as a team to think critically and to problem solve. Their staff also needs to show initiative and be leaders when required. (Alarmingly, we now hear from many employers that job seekers often lack these soft skills.)

Through our personal experiences, we find that technology is exponentially changing how we function and interact with the world around us. This also applies to the workplace. The successful businesses of the future will be staffed by those who can anticipate changes ahead of time or, better yet, those who have the creative capacity to *drive* those changes. As we move away from an industrial workforce, it’s the visionary, creative and technologically skilled people who will be working.

## Tomorrow’s Students

What will people need to learn to be part of the future workplace? “We need to practice creativity but we also need a broad background to give us the ability to move quickly and then think critically.” Mr. Worzel calls for educated workforce that combines a broad background in knowledge and skills with a deep education. We need people who can adapt quickly to changing environments, transferring and continually building on knowledge and skills. We will also need those few individuals who specialize.

Mr. Worzel called upon educational institutions to consider their offerings. Curriculum will need to change from its current content and format. In the past, without computers, students were largely called upon to memorize information. Testing was done to measure memory retention. With constant and instant access to online information, society no longer needs this approach to education. Instead, we need to revise curriculum to help students interpret information and *understand* it. Mr. Worzel also reinforced the need to build creativity in students. The challenge for educational institutions will be, “How do you grade people on creativity?” Educational offerings will need to be continually changing to be relevant. And people creating programs will need to keep technology in mind when developing teaching techniques. Platforms, such as those used for augmented reality, are already widely available. In the near future, students will be accessing information from dynamic and multi-dimensional platforms when learning.

The speaker stated, “Degrees and diplomas aren’t working.” He reinforced his statement by referring generally to the trend of highly educated graduates unable to find work. He further stated that some major corporations are taking inquiries about education levels off of their applications! In light of this, he called upon educational institutions to think of new approaches to accreditation. As people switch jobs, retrain and seek to tweak their current skills and knowledge, the post-secondary education system needs to move away from two- and three-year diploma offering. Mr. Worzel said students will want “stackable credits and bite-sized credits.”

Students will be *all* ages as people are constantly retraining to be able to adapt to rapid and ongoing change. Educational institutions, especially in light of technology, will be competing globally for students. It’s the educational institution that can adapt to meet individual learning needs that will be relevant. The speaker forecasted that post-secondary institutions will function based on individualized learning plans. Instructors will need to think, “Who is learning? What are they trying to learn? What are their learning needs?”

## The Future Is Here!

The following list reflects Mr. Worzel’s suggestions for adaptions to post-secondary programs so they can remain relevant and competitive. Programming will need to include:

- Opportunities for learning based on individual learning needs
- Learning plans based on individual goals
- A skills-based approach
- Skill building activities that can result in stackable credits
- Bite-sized learning opportunities
- Opportunities to build creative capacities
- Opportunities for people to learn soft skills
- Flexible programming to meet the constantly changing needs of the student

As his speech concluded, we were struck by how well positioned Ontario’s *current* Literacy and Basic Skills (LBS) programs are to contribute to the needs of the future workforce. He basically outlined how LBS programs operate! Yet, to be successful in our goal of building the skills of Ontario’s workforce, we need to remain dynamic in our instructional approaches and offer content that is relevant. And we need to be able to adapt to the constantly changing interpretation of the words “dynamic” and “relevant.”

## Moving forward

So how do you move forward in this changing educational environment? The adjustments that you might consider making to your program will depend on where it is at on the "dynamic" and "relevant" scale. Small steps to creating a more dynamic learning environment could be to build in opportunities for learning by having your learners teach each other or work together on an activity (team building and communication). From there you could start to integrate engaging digital content into your existing programs, adding a layer of creativity and encouraging a curiosity to learn about technology. It's a good idea to continually review how you can make adjustments to your programming with a lens on the future needs of your learners. According to Mr. Worzel, and numerous other futurists and researchers, the future needs people that are creative, and have the skills to adapt quickly to changing environments.

## Summary

At the onset of his speech, Mr. Worzel called upon the audience to replace fear of what the future holds with a curiosity about what it might bring. While none of us can truly predict what will happen in 50 years, we can start recognizing trends now and plan for their impact. Much like post-secondary institutions, literacy programs also prepare people for the workforce. We all need to keep the future in mind when developing education and skill-building programs so that those who learn from us can be successful in their goals. Much of Mr. Worzel's speech focussed on a future, 50 years away. Yet, now as we move forward towards that point in time, we are already seeing gaps in what people are learning vs. what the workforce needs. The future is already here! Continual reflection and adaptation within Ontario's literacy programs will be a crucial apart of building skills that contribute to the success of our future workforce.

# Resources to Futureproof Your Program

## Support in deciding your next steps

- To find out what resources are available to help literacy programs remain relevant and dynamic, and to hear about what literacy programs are doing in other parts of the province, contact your local Literacy Network: http://www.learningnetworks.ca/
- To learn about how adult education organizations can use technology to strengthen program delivery through increased digital literacy, contact AlphaPlus. Here you will also find tools, opportunities for training and tailored coaching services that help organizations to integrate technology into their learning environments. http://alphaplus.ca/

## Creative and dynamic content made for LBS programs

- This series of modules allow literacy learners to experiment with innovative technology in a hands-on environment http://www.llsc.on.ca/node/159
- The Innov-8 project teaches key literacy concepts using technically-innovative and physically challenging 94Fifty SMART basketballs http://www.llsc.on.ca/sites/default/files/Innov-8%20BasketBall%20Complete.pdf

## Creative and dynamic approaches to programming offered by LBS programs

- Targeted Training in Ontario's LBS Programs: http://www.learningnetworks.ca/Files/LNOTargetedTraining/LNOTargetedTrainingList.pdf
- Using Gamification in developing LBS Curriculum and Beyond: http://www.llsc.on.ca/sites/default/files/Gamification%20in%20LBS%20and%20Beyond%20Final%20Report%20Feb%2028%20%28003%29.pdf
- Gamification and Technology: motivating learners to overcome fear and play their way through learning (webinar): https://www.youtube.com/watch?v=ATIxgkWwQrI&feature=youtu.be

## Articles on the role of education in preparing for the future

- Building the Workforce of Tomorrow: A Shared Responsibility https://www.ontario.ca/page/building-workforce-tomorrow-shared-responsibility
- Dancing with Robots: http://content.thirdway.org/publications/714/Dancing-With-Robots.pdf
- Man and Machine: A book review of "The New Division of Labour: How Computers are Creating the Next Job Market": https://www.richmondfed.org/~/media/richmondfedorg/publications/research/region_focus/2005/winter/pdf/book_review.pdf
- Menial No More: A discussion paper on Advancing our Workforce through Digital Skills: http://www.essentialskillsontario.ca/sites/www.essentialskillsontario.ca/files/menial_no_more_0.pdf

## Information about the REDTALK speaker Richard Worzel

- Richard Worzel: http://futuresearch.com