





An iPolitics Q&A with Jennifer Flanagan,
Actua President and CEO

Diversity must be at core of any digital skills plan

BY SARAH TURNBULL

Actua represents 35 organizations across the country that deliver coding and digital skills training in more than 500 communities, in and out of schools. With the government's two-year CanCode investment, they're ramping up their co-ed services while seeking to reach more minority youth. iPolitics talked with Actua CEO Jennifer Flanagan. The following is an edited transcript of that conversation.

Actua President and CEO Jennifer Flanagan sits down with *iPolitics'* journalist Sarah Turnbull for an interview in Ottawa on Wednesday, February 14, 2018. *iPolitics*/Matthew Usherwood

Q What are the economic and social benefits of including minority groups in this type of education and training?

A It doesn't make sense not to engage half of our workforce in an area that is incredibly important for the country and in an area where there have been massive gaps identified. Those gaps are going to continue in the future.

If we're concerned about increasing the overall economic strength and prosperity of Canadians, getting more women involved in science could be a solution to this. Jobs in these fields are really well paid and if you think of the kind of wage gaps that exist – this is definitely an area we can improve.

Also, when you think about the fact that we live in a world that is driven by technology and you think about the fact that 90 per cent of computer scientists are men, then we're living in a world that is designed by men from their perspective. This has real consequences. The diversity of perspective is not just a nice-to-have, it's not just a social justice issue, it's a product design issue.

Q Is there a nature vs. nurture debate here?

A There's no problem in girls' interest or aptitude in science and math. Our research shows girls are good at it, they love it, they have no initial confidence issues. Go into any kindergarten class and girls will be participating as actively as boys. A lack of female representation in these areas is systemic, contextual, it's based off the experiences that they have, and the feedback they receive.

We need to stop asking: How do women need to change to fit into science? What do girls need to do differently so that they like science?" and How do we set things up so that this can suit girls? The narrative needs to ask How does the environment and the culture need to change?

It has never been about the girl, it's always been about the context. We've gotten that confused.

Q Is there a certain age that girls turn away from these subject areas?

A It's around middle school, Grade six, seven, and eight. This is when we see that big drop start to happen. Experts in the field will say girls genuinely don't think

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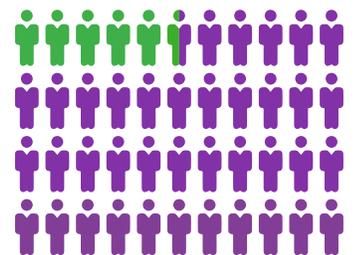


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that coding, for example, is something that women do. They think it's something that weird boys do. That's the perception.

Q How will your organization make use of the CanCode investment?

A We're ramping our services way up, and specifically the programs we're doing with girls, Indigenous youth, and at-risk youth. Our network delivers programming in 500 communities in every province and territory.

CanCode puts focus in the right area because improving programs for those audiences is going to improve programs for everyone.

Q What are your thoughts on STEM vs. STEAM?

A For Actua, the arts side of things has always been very much a part of how we approach teaching because we look at it holistically. We have always taken that approach without needing to include the word arts. So, we won't move to saying STEAM anytime soon.

What I think is interesting is that kids have eliminated the line between tech innovation and social innovation. For the most part, they all want to improve something either in their community or in the world and so that naturally drives what they do. If they need arts incorporated into their solution they're just going to use it.

Q Is the end goal to produce a group of youth that will become coders?

A When we do activities around artificial intelligence or a specific programming language, it isn't about that technology it's about the mindset that we're developing. Because they've understood the process that goes into how technology is built, and the coding process specifically, they can then acquire new skills that are more current and relevant. That's the narrative that needs to be out there so that parents are understanding that this isn't just a flash in the pan thing.

Q You have kids, what career would you advise your children to enter into?

A We don't talk about jobs anymore really, nor do we talk about careers. Because it's so hard to predict what's going to happen 10 years from now, we talk more about what problem they want to solve and how can science and technology help them to do that. It's a different way of thinking.

If we want to produce people who are innovative, we need to have that innovation reflected in our universities and our K to 12 system. My kids are still young, but I'll make sure they're digitally literate so they're not just consuming technology – that they actually understand how it works and that they've been given opportunities to build their own technology.

Q Is the current government receptive to your organizational objectives?

A Yes, in a big way but for a couple of different reasons. From day one this government has been extremely aware of the importance of youth engagement in this area. In the past, no government has ever stood up and said not only do we agree with it, but we're going to invest a significant amount of money here. So, forget about the money, the fact that they have announced this as a critical part of innovation, of advancing research in the country, of the next gen. workforce, is transformational. Just the credibility and the leadership from the top matters a lot. I think the commitment is very authentic from the people that I've worked with and I believe that they want to make change in a really significant way.

This funding will end in March 2019 so we want to see a continuation of this but I feel optimistic that we'll be able to demonstrate good strong results.

Q What has been your biggest obstacle over the last few years at Actua?

A Parents to a certain extent understand how digital skills will be important but I think there's a concern about online safety that is very valid. Especially with girls, that concern is heightened and that is causing parents to pull girls away from screen time or be a little bit more rigid in the way their kids are engaging with technology. So, there's a fear mindset I think.

There are legitimate online safety concerns and that's why we're focusing so much on that topic right now. But, with parents it's about saying empowering your kids with digital skills is the best way to keep them safe online versus pulling them offline or a top-down rules approach.

Q Of what are you most proud?

A We're transforming kids' lives, we're helping communities, but I'm most proud of the work we're doing to embed the value of diversity and inclusion in a generation of workers that is about to enter the workforce.

We have 1,000 undergraduate students that are employed by our network members. Those are students who will be leaders in engineering and science – they'll be teachers, they'll be parents. They're superstars already. In their experience with Actua, they've had Indigenous cultural awareness training, they've had gender issues training, they've worked in cross-cultural contexts. They're going out into the world with those world views, changed and I think that's incredibly powerful.

