

OPINION

Coding is the new cursive writing – and we have to embrace it

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The third grade was an exciting time for me. I remember the dedicated class time learning how to cursive write and when my homework was to fill up an entire page with the same letters over and over. I know this may seemingly date me, but the truth is that I'm still part of the under-25 generation – this is simply the rapid pace at which our world is changing.

Peers only a few years younger than me have already had dramatically different learning experiences. We live in an era of connected classrooms, online modules, and tablets in the hands of toddlers. These drastic changes to the education system are resulting in equally dramatic shifts to the work force, which brings us to the critical question for educators, parents and professionals alike: What are the new skills needed to penetrate the labour market?

Read more: [How to encourage girls to get interested in STEM](#)

Science, technology, engineering and math (STEM) skills are becoming more necessary to succeed in the professional world. With the introduction of artificial intelligence (AI), the need for such skills will increase dramatically over the coming decade. A report by PwC anticipates that four in 10 U.S. jobs will be replaced by robots and AI by the early 2030s, while financial services face higher risk of turnover with 61 per cent of jobs being replaced by machines.

While the loss of lower-wage jobs is anticipated to occur quickly, these forecasts also consider highly-skilled, knowledge-based jobs such as legal professionals and accountants. In fact, according to recent research, accountants have a 95 per cent chance of losing their jobs to automation in the future.

It's not all bad news, though. According to the World Economic Forum's The Future of Jobs Report, in less than five years the market is expected to gain two million jobs in STEM-related fields.

So the importance of those skills for youth is stronger than ever. In particular, many stakeholders are showing a particular effort in building STEM skills among girls.

So why is there such an emphasis on girls in STEM? According to the Jacobs Technion-Cornell Institute's Women in Technology and Entrepreneurship in New York program, over the past 20 years, the percentage of computer science degrees awarded to women has declined from 37 per cent to 18 per cent. Additionally, women still only hold about 26 per cent of all tech jobs, and only stand to gain one new STEM job for every 20 that are lost in other disrupted industries, compared to a ratio of one-to-four for men. Suffice to say the gender gap is prominent.

Given all of this, there are three things that we can do to ensure that today's young talent – particularly women – is set up with the tools it needs to succeed:

Change the narrative: The narrative that we have built around STEM careers is, in part, deterring young people from taking these skills seriously. It's become commonplace to assume that, just because a student is interested in coding, they should pursue a career as a developer or as a software engineer of some sort. To challenge this, we need to understand that STEM skills are becoming an integral fabric of every professional workplace.

Emphasize digital inclusion: Digitalization is redefining not only the future roles of work but also how we work. Daily work tools like accessing files in the cloud, making purchases online, or even the simple process of sending a file through e-mail may be familiar tasks, but not everyone can claim these basic competencies. There is a population still not online and a work force that is not equipped with the digital skills needed for their future jobs. Programs that promote digital inclusion and extend knowledge to such populations are crucial to transition to the new economy.

Embrace the unexpected: As the dimensions of the work force change, new jobs will emerge that we could not have predicted. According to one popular estimate, 65 per cent of children entering primary school today will ultimately end up working in a job that does not yet exist.

write. By introducing students to STEM skills early on, we are equipping them not only with a skill set necessary to succeed in the professional world, but also the tools to shape the future.

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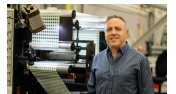
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