

Artificial intelligence and the teaching profession

NEWSDAY

TUESDAY 20 AUGUST 2019

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ARTIFICIAL intelligence (AI) is a reality of the world and many workers are being displaced by machines in an effort by employers to reduce production costs as well as improve efficiency.

The development of AI software and super-fast computers, combined with highly sophisticated and highly capable robotics, promises to revolutionise the work of teachers and what goes on in the education sector.

Distance learning, electronics textbooks, e-testing and many other technological developments have been redefining the education sector, making education more accessible to more people in more far-flung corners.

It is estimated that in the next 15 years or so, the use of AI technologies to assist teachers in the classroom and the home will expand significantly, as well as learning based on adaptive online courses and virtual reality applications.

The implementation of sophisticated technology in the classroom and workplace will only increase as the technology advances. What we have to guard against is the way in which that technology is implemented to ensure that the personal touch of the teachers' role is never compromised or undermined. No machine will ever replace the teacher despite the promise that the technology holds out.

There must be a distinction between simple robotics that have been in the work environment for decades and the advent of sophisticated AI. Human thinking and emotional intelligence can never be replaced by AI. Ethical concerns must always be an anchor for education and what ensues in the classroom.

No form of AI must ever threaten the relationship between the teacher and student, but rather augment the learning experience. Unfortunately, the advancement of new AI technologies has served to worsen the digital divide and increase inequity. Many schools simply cannot afford the resources to implement new technologies available for use in the classroom.

While some classrooms in developed countries have been able to lay the requisite infrastructure for information and communication technologies to enhance student learning outcomes, this has not been the case for many developing countries and they continue to lag behind in terms of educational attainment.

We know that today's new technologies, driven by AI, is set to fundamentally change the workplace within the next decade, with some researchers even predicting the loss of between 400-800 million jobs worldwide. This large job loss will be mitigated by the need for workers in yet to be determined jobs. However, these new jobs will require workers to possess new skills and competencies. Just how these workers will attain these new skills and who will pay for this process of upskilling are two critical questions we must confront.

In this paradigm, education will thus become a life-long pursuit for most workers and schools/teachers must respond to this imperative of producing not just workers but people who see themselves as self-directed life-long learners. The focus of education must now be "how to learn" rather than "what to learn."

Critical thinking is a skill that schools must strive to imbibe in all its charges since this will be the asset needed to manipulate AI and associated technologies. Countries that are able to make that paradigm shift in their educational thrust are the ones that are able to attain global competitive advantage.

From driverless vehicles to smart devices, AI and associated technologies are here to not just stay but to play an even greater role in our daily lives. How we respond to these rapidly evolving technologies is going to be the big test for us as a society, with

schools/teachers either rising to the challenge or ensuring our society lags behind.

In mapping out this new role, we must as a trade union engage the public we serve in the process of developing a social compact on the appropriate use of AI and the future of work.

The public at large must understand what is at stake for us as a nation in a global environment that is increasingly being defined by the engagement and use of rapidly changing technologies.

This compact must develop recommendations regarding the scope and use of AI and robotics in the workplace as well as the future of work in our country.

Political, legislative and media strategies must be developed to ensure the infusion of AI and robotics in the workplace in a manner that will not result in social disharmony, but rather ensure that upskilling and the acquisition of new competencies is the new norm. We must in all of this assert the importance of education from a humanistic perspective.