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The Landscape of Artificial Intelligence in Open, Online and Distance Education: Promises and Concerns

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Editorial

"Only the unknown frightens men. But once a man has faced the unknown, that terror becomes the known." Antoine de Saint-Exupéry, 1939.

The Educause (2019) Horizon Report suggests many emerging technologies that might shape the future of education. Among these, Artificial Intelligence (AI) is listed as one of the promising technologies and Educause (2019, p.27) further reported that "advances in computer science are creating intelligent machines that functionally approximate human reasoning more than ever before. Harnessing big data, AI uses foundations of algorithmic machine learning to make predictions that allow for human-like task completion and decision-making. As the programming, data, and networks driving AI mature, so does the potential that industries such as education see in its application". Similarly, in their research, Goksel and Bozkurt (2019, p. 224) identified three broad themes regarding the use of AI in education. These are: "(1) adaptive learning, personalization and learning styles, (2) expert systems and intelligent tutoring systems, and (3) AI as a future component of educational processes". In their systematic review, Zawacki-Richter, Marín, Bond and Gouverneur (2019, p. 2) reported four areas of AI applications in education. These were: "academic support services, and institutional and administrative services: 1. profiling and prediction, 2. assessment and evaluation, 3. adaptive systems and personalisation, and 4. intelligent tutoring systems". Supporting these ideas, Petroff (2018), in her report, cited the speech of Mr Sundar Pichai at the World Economic Forum in Davos, Switzerland, noting that "AI is probably the most important thing humanity has ever worked on. I think of it as something more profound than electricity or fire." In his book "Fourth Educational Revolution" Anthony Seldon (2018) says educators should seize this opportunity. To quote Seldon, "Nothing matters more than education if we are to see AI liberate, not infantilise humanity." Audrey Azoulay, Director-General UNESCO expresses, "Education will be profoundly transformed by AI. Teaching tools, ways of learning, access to knowledge and teacher training will be revolutionised" (UNESCO, 2019).

In addition to the above promises of AI, there are still some major concerns we have to overcome. Critical thinkers generally blame AI for its ignorance the human nature in learning and decisions made by binary codes, in other words, confining education into 1s and 0s. These concerns are quite understandable; however, we should remember that "the err" is human [made] and, thus, we shouldn't blame AI thoroughly; in contrast, we should partly blame ourselves if the final outcome conflicts with our human values. Simply, AI learns from a model and can train itself by tracking or observing

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footprints left by humans. In this regard, when we blame AI-generated educational practices, we actually blame ourselves, but we, in many cases, cannot admit that. AI is not a self-emerging and self-organizing entity; it has an architecture, it has a base to develop itself, it eventually imitates human and learn from us. The AI-based future we worry about is, in fact, a future that will be created by us. AI is human-made, and it is a reflection of us. If we cannot blame our reflections on the mirror, we cannot frantically blame AI. The case on AI, of course, is not so simple. We have to learn how to use AI in education, prepare educators to effectively use AI-based systems in teaching and learning processes, develop inclusive approaches and disseminate how-to knowledge to the rest of the world. We, however, argue that there are some other critical issues we must clarify urgently. First, there should be some control mechanisms that should be put into place to ensure transparency in collection, use and dissemination of the AI data. Second, we need to develop ethical codes and standards proactively so that we truly benefit from AI in education without harming anything; not only humans but any entity. Third, we should ensure learners' privacy and protect them for any potential harm. Next, we must raise awareness about the AI so that individuals can protect themselves and take a critical position when needed. Finally, we have to go beyond conceptual papers on AI in education and should see if it really works through quantitative, qualitative or mixed approaches.

As a final remark, the problem is the way we see and interpret innovative technologies such as AI. Many educators tend to believe that technologies such as AI is the saviour descending from the sky and they blindly follow popular discourses such as "AI will transform and upgrade education into a new level". Distance education is an interdisciplinary pragmatist field in nature (Bozkurt, 2019), and it uses technology to lessen limitations and to enrich learning experiences in [distance] educational processes. From this perspective, technology for distance education is not an end, but rather a means. We should not reduce technology-driven approaches in a single dimension, in contrast, we should have a multidimensional perspective which might include social, cultural, pedagogical and any other critical variables that are necessary. AI is fast advancing technology and, thus, AI is not widely known or understood by many educators. As long as AI is an unknown phenomenon, it will continue to frighten us. In order to overcome this bottleneck, we have to face it, we have to make it known, and we have to use it for the greater good by centring human[ly] values and human learners.

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