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Future Learning with Technology

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We are living in a VUCA (Volatility, Uncertainty, Complexity and Ambiguity) world. It is hard to predict what would happen in the future as no one knew how COVID-19 could affect our lives and school education a few years ago. Technologies are transforming teaching and learning in many ways. What will future learning look like? What are the technological tools learners will be using in the future? Researchers and educators believe that future learning incorporates the following features.

Future of Learning

First, learning will be more personalised. With the development of globalisation and knowledge economy, learners are becoming more diverse, and they often have different learning needs and expectations. Future learning enables learners to easily access a wide scope of learning resources to meet their individual needs. Differentiated learning or personalised learning will be more prevail in the future.

Second, learning will become more informal. Learners not only learn in the formal educational context but also more increasingly, they will learn informally in the real world or learning community. The use of technology will bring the external world to the classroom (e.g., via recorded videos or simulations) and enable learners to learn outside the classroom anytime anywhere via connected mobile devices. Technologies would facilitate seamless learning.

Third, learning will be more interactive. Learners are not passive listeners but more active participants of knowledge creation practices. They do not solely interact with the learning content and receive feedback for improvement, but also constantly communicate and collaborate with others and keep constant connection with them via the information communication technology.

Future Learning Environments

Future learning environments will be more immersive and smarter. Immersive learning environments supported by VR (Virtual Reality) and/or AR (Augmented Reality) technologies enable learners to have mimic or enhanced learning experience. One example of using VR is a virtual field trip to Mars. Another example of using AR is that relevant information is displayed on the screen when students walk closer to a building on the road or watch the building via the camera of a mobile phone. An additional example is the use of hologram technologies to project online students to the physical classroom so that classroom counterparts can have a feeling of being together with the online students.

The learning environments will be smarter empowered by Artificial Intelligence (AI). AI could augment human decision making in teaching and learning, thus rendering the processes more effective. AI could help us understand individual students' learning based on how they respond to learning materials and activities. AI could provide personalised instructions, feedback, and learning pathways for students. With the support of AI, learners will be more aware of themselves by knowing their personal interests, strengths, progress, and gaps. They can also be more aware of others and tap on others' wisdom to improve their own learning. Such examples include adaptive learning systems and learning companions. In addition, AI can help the instructor closely monitor the learners' learning progress and suggest differentiated instruction for individual learners. AI can also predict the learners at risk so that prompt instructional or social support can be provided.

Conclusion

Though the future is unpredictable, there are some distinct features of future learning. These features include personalised learning, informal learning, and interactive learning. Future learning environments will become more immersive and smarter. The immersive learning environment provides learners with enriching learning experience via emerging technologies to better engage learners, and the smart learning environment makes learning more personalised to meet their individual needs.

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