
Title	Future of learning: Understanding and emphasising the future learners
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Future of Learning: Understanding and Emphasising the Future Learners

By *Farhan Ali*

Farhan Ali is Assistant Professor in the Learning Sciences and Assessment Academic Group at National Institute of Education, Singapore. His interest is in understanding and improving social-emotional functioning using neuroscience and artificial intelligence approaches.



There is much interest in envisioning how future of learning will be. This discourse, what some have called futurizing, has emphasised various aspects of 21st century competencies, emerging technologies, and innovative pedagogies with focus on key stakeholders such as teachers, schools, and governments. While these aspects of futurising about learning are important, my presentation argued for the understanding of learners, how they likely will navigate learning, what their aspirations and limitations are, and what and how they want the future to be. These considerations are important as they impact future technological designs, highlight potential tensions, and ground the possibilities of what kind of futures are realizable and what are fictional.

How Learners Think

First, what do we know about learners and how they learn to think? Based on extensive research in psychology and neuroscience, there is good evidence that humans tend to employ two routes for thinking. One route, called System 1, is a relatively effortless and fast way to think based on intuitions, emotions, and memories. Many times, they are the default way of thinking as it is easy and fast, allowing us to quickly navigate dynamic environments.

A second route, called System 2, is more effortful, deliberative, slow, and dependent on activity in the frontal part of the brain. This framework for thinking processes highlights the importance of

how we prepare learners for a world that is increasingly volatile, uncertain, complex and ambiguous (VUCA). For example, there is a need to develop a stronger and more adaptable System 1 thinking that can navigate quickly changing environments. This goal involves, among other ways, exposing students to increasingly unstructured learning experiences, which may run counter to current trends in education that emphasise “learning designs” that carefully and intentionally plan for learning.

There is also a need to develop skills for realising when to apply the slower, more deliberative System 2 thinking, which can be important in a VUCA world (learning how to “slow down”). This understanding of how the brain and mind works needs to form a central role in futurizing discourse.

Learner Myths and Learner Voices

My presentation further covered learner myths and learner voices. Learner myths are beliefs about learners that have little basis in actual research. One belief is that of the digital native, younger individuals (usually, millennials and Gen Z) who are supposedly naturally adept at using technologies and in multi-tasking. Research in education, cognitive science, and neuroscience provide little support for existence of such a group. This realisation has implications on how we develop and deploy future learning environments that are increasingly technology-reliant. For example, future of learning may need to incorporate technology literacy as a learning goal

instead of assuming learners will naturally navigate new technologies for learning. I finally surveyed learner voices related to how they want to learn now and in the future. Very little research has been done on this issue, but the available data suggest two themes. One, learners want to prioritise certain skills such as digital skills, creativity, and social-emotional skills. Second, these learner-prioritised skills are not necessarily the same as those prioritised by teachers, with potential tensions in future of learning.

Overall, my presentation argued that discourse on future of learning needs to carefully consider learner characteristics, strengths, limitations and voices, even to the extent of highlighting conflicts and tensions with other stakeholders. This way, we can co-imagine possibilities that are inclusive and visionary but also actionable and implementable such that we can truly realise in the near future what we now imagine our future of learning to be.

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