Online Learning: The New Norm in a Post-COVID-19 World

The COVID-19 pandemic has served up the necessary conditions for education to leapfrog the present. What does the future hold for higher education (HE) as well as training and adult education (TAE)?

by Tan Bao Zhen[1], Chen Zan[1], Richard Watermeyer[2], and Michael Niederpruem

COVID-19's sudden emergence and rapid spread transformed work and learning as we know it, with governments worldwide rapidly mandating remote work and learning in response to this global crisis. This pandemic presents a unique opportunity for the HE and TAE sectors to leapfrog the present and transform their paradigms for learning delivery through accelerated adoption of digital technologies (i.e. digital transformation or digitalisation), which will inevitably develop into a new, permanent state for online learning, teaching and assessment (LTA): A "digital resettlement"[3].

Our research in Singapore found that both the HE and TAE sectors were pressured to accelerate their digital transformation to transit to fully online learning, in response to the government's circuit breaker and social distancing measures that led to the physical closure of their teaching and training premises. Much of the organisational inertia that used to stand in the way of digital transformation is now gone, as this crisis provided the impetus for these organisations to survive in the COVID-19 world through digital resettlement, with the move resulting in various costs and opportunities for its stakeholders.

The acceleration of digital transformation

To understand how the COVID-19 crisis was impacting the HE and TAE sectors in Singapore, we conducted a survey[4] among adult educators (AEs) in Singapore that work in or work most with institutes of higher learning[5] (IHLs) as well as training providers (TPs).

Our analysis reveals that the proportion of AEs reporting frequent use of online platforms[6] for teaching, assessment, and training-related work increased from 14%

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[1] Institute for Adult Learning (Singapore)

[2] University of Bristol

[3] Watermeyer, R., Chen, Z., & Ang, B. J. (under review). 'Education without limits': The digital resettlement of post-secondary education and training in Singapore in the COVID-19 era. Journal of Education Policy.

[4] The sample consisted of 1,553 adult educators, including (a) academics, teaching and research staff, adjunct lecturers/educators in IHLs; (b) adult educators working in training organisations, who perform the roles of learning facilitator, assessor, courseware developer, learning technology designer, learning consultant/learning solutionist, curriculum lead, etc; (c) freelance adult educators; and (d) training professionals working in the enterprise for in-house training. The online survey was administered from 28th May till 15th June in 2020.

[5] This includes autonomous universities, polytechnics and Institute of Technical Education (ITE).

[6] Online platforms include (a) Institutional learning management system (for distribution of asynchronous learning materials; (b) online sessions via synchronous video (e.g. Zoom, Microsoft Teams, Google Hangouts etc; (c) pre-recorded videos from external sources (e.g. YouTube); and (d) social media platforms (e.g. WhatsApp/Facebook.
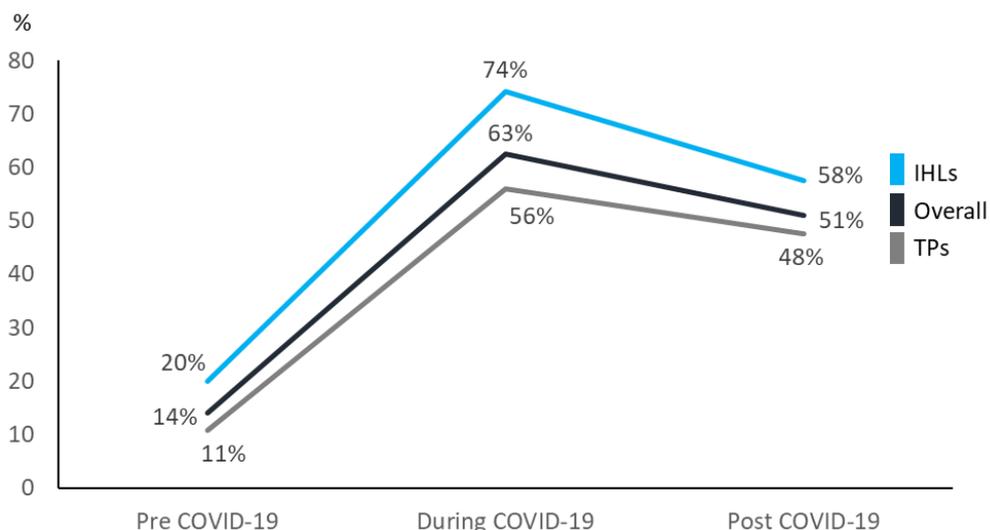
pre-COVID-19 to 63% during the COVID-19 pandemic (Figure 1). While it is evident that digital transformation within the HE and TAE sectors was already set in motion before COVID-19, the pandemic is accelerating digital transformation throughout the HE and TAE sectors.

It is also apparent that IHLs are one step ahead of TPs in terms of digitalisation – about twice as many respondents working in IHLs reported that they were already using online platforms frequently for their work before COVID-19, as compared to their counterparts working in TPs (Figure 1). Digitalisation in IHLs is greater than in TPs amidst the circuit breaker and social distancing measures during COVID-19. Specifically, 74% of the respondents working in IHLs reported frequent use of online platforms as compared to 56% of their counterparts working in TPs doing so.

Figure 1

COVID-19 has accelerated the digital transformation of HE and TAE.

Percentage of respondents reporting frequent use of online platforms for teaching, assessment, and training related work (n= 1,553)

The digital resettlement

AE sentiment indicates that such a transformation will not be a temporary response to an emergency crisis, but instead remain as a permanent shift for both the HE and TAE sectors.

51% of the AEs surveyed expressed their intention to continue frequent use of online platforms for their work post-COVID-19 (Figure 1). Additionally, more than 90% of the AEs indicated that their organisations intend to replace a majority or all of their face-to-face programmes with online offerings in the short-term (i.e.,

currently to the next year). 92% also felt that the TAE sector is likely to remain in a predominantly online model in a post-COVID-19 world.

76% of the AEs predicted that future enrollment in online programmes will trend upward (Figure 2), online learning and teaching is seen as the future of HE and TAE, and 71% of AEs agreed with the statement "Delivering teaching, assessment, and training-related work online is the future of higher education, continuing education, and lifelong learning."

Online education and training is seen to provide enhanced accessibility for learners – paradoxically at a time where traditional forms of access are denied by the circuit breaker and social distancing rules. Digital education and training will likely lead to an anticipated proliferation of "online universities", and the advantages of "open" learning due to digitalization being seen as yielding financial savings for the learners and market opportunities to the TPs and AEs:
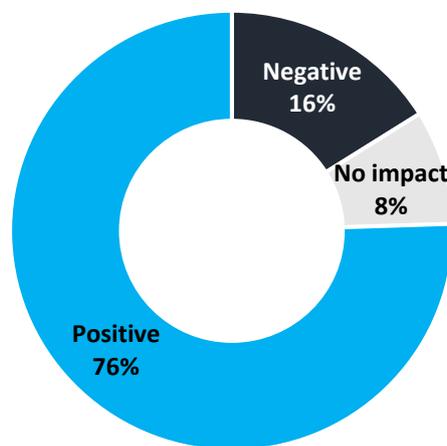
"Education will be possible all day round and all year round. This will help online universities to bloom and flourish. Cost of education can be lowered and we can create more job opportunities in this sector. Education without limits - This is the future of education."

Figure 2
Online learning is the future of HE and TAE in Singapore.
Impact of the move to online learning on enrollment for online programmes (expressed as a percentage; n= 1, 553)

The price of digitalisation

The price of digitalisation
As the pandemic called for an emergency response plan in the form of digitalisation, it inevitably came with a price for the various stakeholders, namely the sector as a whole, the TPs, AEs, and learners. With the transition to online learning, the top two challenges reported by AEs across the sector relate to the digital divide among the learners and AEs within Singapore (Figure 3). There is also the fear that those who fail to make the necessary digital leap to keep up with this shift within the sector will be left behind. Unfortunately, the issue is not only with access but the quality of that access:

"The quality of learning depends heavily on the quality of access to the internet, quality of the home computer setup and hardware of the learner, and that puts some learners of lesser means at a disadvantage."

"It requires learners and teachers alike to have some basic knowledge and aptitude with computer skills."

Ensuring quality access to technological devices and tools, as well as possession of the relevant digital skills among learners and AEs alike, are thus critical challenges that need to be addressed for the sector to move ahead.

Resistance to digitalisation is also one of the top challenges faced by AEs across the sector, with about 1 in 10 AEs surveyed reporting that they had observed resistance to change and a preference for face-to-face lessons among learners and AEs alike (Figure 3). Determining how to convert these stakeholders to embrace online learning should be a priority for the sector, which will also have to decide if fully online learning or hybrid learning should be the way forward.

Adjustments to LTA will also be necessary with the change of learning mode, including:

- reconciling skills and performance-based learning with the online learning mode

- matching the online learning rhythm with the natural pace by which our bodies and brains learn

- re-defining and facilitating social learning in the online space

While the rush to switch to fully online learning during the circuit breaker may have robbed the sector of the time to properly make these adjustments (especially for organisations that do not already offer online programmes), it is important that necessary time, talent, and infrastructure be allocated on digital transformation in preparation for the expected permanent shift to online learning.

To stay sustainable in the sector, organisations will need to:

- transform their businesses models (e.g., create subscription models for MOOCs and other online course offerings)

- make long-term investments in innovative teaching and learning technologies and methods, for better learner experience and learning outcomes

The crisis is also affecting training organisations in very different ways, depending on their online capabilities before COVID-19.

For organisations already with online capabilities, the transition to online learning is primarily seen as a cost-saving strategy:

"Due to reduced numbers of footfall of staff and students in the institution, there could be savings in rental and utilities."

"It should bring down the overall cost. No need for physical space and large campuses."

On the other hand, the transition to online learning is costly for organisations that have yet to digitalise or are only doing so now in response to COVID-19:

"High cost to produce high quality pre-recorded videos and protect copy-righted online materials."

"High cost of online course content development [...] and implementing systems - TMS, LMS etc."

Training organisations will also need to review the fees for their course offerings, as the AEs are anticipating a demand for a reduction in course fees with the shift to online learning:

"Learners unwilling to pay full course fee for the same training."

In contrast, the AEs are cautiously optimistic about their job prospects (Figure 4). 66% of the AEs surveyed don't believe they will lose their HE- or TAE-related jobs

in the next 12 months, and 64% believe there will be more job opportunities for digital educators in the next 12 months. However, 56% expressed the need to upskill knowledge and skills in the delivery of online teaching, assessment, and training-related work to remain employable in HE or TAE. Specifically, the use of learning technology, online facilitation, curriculum design, and assessment were among the most needed areas for professional development as reported by the AEs surveyed. These are the areas that TPs would need to take note of when planning the professional development of their AEs.

Figure 3

Moving forward, there is a need to reduce the digital divide.

Top challenges during the transition to online learning (n= 1,798)

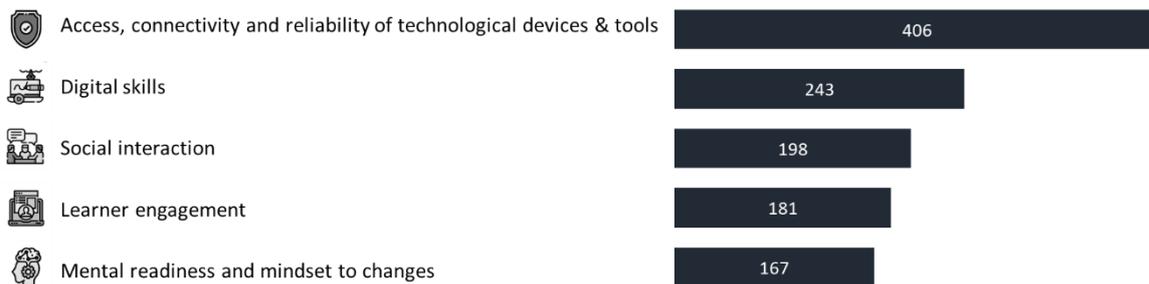|	
Access, connectivity and reliability of technological devices & tools	406
Digital skills	243
Social interaction	198
Learner engagement	181
Mental readiness and mindset to changes	167

Figure 4

Although optimistic about their job prospects, the AEs expressed the need to upskill in online delivery for their professional development.

Likelihood of the following scenarios (expressed as a percentage; n= 1,553)

Legend: ■ Not Likely ▨ Somewhat likely ■ Very likely

	Not Likely	Somewhat likely	Very likely
Lose job in next 12 months	66%	25%	9%
More job opportunities for digital educators in next 12 months	9%	27%	64%
Need to significantly improve knowledge & skills in online delivery	14%	29%	56%

New opportunities

The digitalisation of the HE and TAE sectors also brings new opportunities to think globally while acting locally. There are accounts of organisations taking advantage of this global transition to online learning to extend their course offerings to wider audiences through the virtual classroom with minimal costs.

"Wider reach and reduced cost due to digitisation."

"We do see an opportunity to go overseas with online training (for certain topics) with minimal costs."

Indeed, with digitalisation increasing learners' accessibility to a broader range of affordable courses globally, we would need to have a better grasp of how to generate and sustain learner engagement virtually, a concern that was expressed by many of the AEs. Further research is needed to uncover effective strategies for

online engagement as well as to ensure good mental and emotional health of both learners and AEs.

The shift to online learning is also likely to lead to the rise of EdTech companies and greater opportunities for EdTech solutionists. On average among the organisations that the AEs we have surveyed work in, only 42% of their digital/online programmes are currently being developed internally, while 35% are outsourced, purchased from external companies or partners, or by tapping on external open-access digital/online programmes.

In comparison to the IHLs, TPs are more likely to rely on external help in the development of digital/online programmes, and stronger partnerships between the TPs and EdTech companies will be envisaged in the post-COVID-19 world of digital resettlement.

While we encounter some inconsistency among the views of the AEs surveyed, we find a harmonised view of permanent change. COVID-19 is seen as representing an opportunity for paradigm-change which educational institutions and educators should grasp. Digital transformation of the HE and TAE sectors is at a point of no return, with little motivation to go back to the pre-COVID-19 learning landscape, given the cost-affordances and potential opportunities for fostering sustainable learning innovation.