Cambodian Journal of Educational Research (2022)
Vol. 2, No. 1, pp. 146–156.

Digital transformation in higher education: Key to enhancing Cambodia's higher education sector

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Abstract

The COVID-19 pandemic has accelerated digital transformation in higher education in Cambodia. This phenomenon provides a great opportunity for Cambodian higher education to transform and enhance the integration of information and communication technology (ICT) in the classroom. This article discusses how digital transformation in higher education can improve Cambodian higher education by bringing at least three benefits to the sector, namely increased opportunities for blended learning, better adoption of ICT in education, and greater opportunities for institutional collaboration. The article calls for concerted efforts to build on this momentum and makes recommendations for concerned stakeholders in Cambodian higher education to support higher education digitalization. The article concludes with suggestions for future research.

Keywords: Digital transformation; higher education; COVID-19; Cambodia

ARTICLE HISTORY
Received 16 May 2022
Accepted 2 June 2022

© Cambodian Journal of Educational Research

Introduction

In Cambodia, the COVID-19 pandemic started to cause significant disruption in March 2020 when all schools and universities were ordered to close temporarily. Although Cambodia coped with the pandemic relatively well in 2020 (see Heng 2020a, Heng & Ang, 2020), there was an extensive community transmission in February 2021. Since then, the rate of infections jumped to between 300-800 cases per day. Deaths related to COVID-19 started to kick in and got more serious. By May 2022, Cambodia recorded 136,254 confirmed cases of COVID-19 and 3,056 deaths (World Health Organization, 2022). As of June 2, 2022, Cambodia recorded no new COVID-19 infection for 27 consecutive days. Now many business activities have almost got back to the pre-pandemic situation with some health restrictions and social distancing requirements. However, some educational institutions continue to offer classes online and embrace the opportunities for online and blended learning (a combination of physical and online classes) accelerated by the pandemic (see Chea et al., 2020; Heng, 2021a).

Despite the disruptions and COVID-19-related challenges, the pandemic has ushered in an unprecedented opportunity to introduce digital transformation in education, particularly higher education (see Chea et al., 2020; Heng, 2020b, 2021a; Heng & Sol, 2021). Prior to the pandemic, online classes were not a normal thing in Cambodia, so was blended learning. On-campus learning was the norm, and few educational institutions were keen on investing in online learning resources and the Learning Management System (LMS).

However, over two years into the pandemic, everything has changed and gone online. Online learning, meetings, workshops, and seminars have become ubiquitous in educational and non-educational settings. Students and teachers have increasingly gotten accustomed to them. Schools and universities in Cambodia can now provide online classes with greater confidence and effectiveness. Educational administrators and leaders have gained a better understanding of online and blended learning delivery and are more willing to introduce change to their pre-pandemic education provision (see Heng 2021a; Heng & Sol, 2021).

Against this backdrop, this article aims to discuss the digital transformation in

Cambodian higher education driven by the COVID-19 pandemic. The article argues that the digital transformation in higher education, despite its temporality, is key to enhancing the Cambodian higher education sector, particularly in terms of enhancing the integration of information and communication technology (ICT) and blended learning into mainstream classrooms. The article discusses three reasons to substantiate this argument. It concludes with recommendations for concerned stakeholders in Cambodian higher education and for future research.

How can digital transformation enhance Cambodian higher education?

Digital transformation is defined as "a process that aims to improve an entity by triggering significant changes to its properties through combinations of information, computing, communication, and connectivity technologies" (Vial, 2019, p. 9). It involves "the use of new digital technologies (social media, mobile, analytics or embedded devices) to enable major business improvements (such as enhancing customer experience, streamlining operations or creating new business models" (Fitzgerald et al., 2014, p. 2).

The phenomenon of digital transformation in higher education driven by the pandemic provides a great opportunity for transformation in Cambodian higher education. The whole sector is seen to benefit from the pandemic-induced digitalization in many ways, three of which are discussed below.

Increased opportunities for blended learning

The pandemic-induced digital transformation of education provides a great opportunity for higher education institutions (HEIs) in Cambodia to improve their learning management system and promote blended learning (Heng, 2021a). They become more familiar with online education provision and management. They have somehow invested in infrastructure to support online learning and teaching. The experience and resources for online learning during COVID-19 are essential for the greater integration of blended learning into mainstream classes (see Heng, 2021a).

Prior to the pandemic, blended learning was a new phenomenon in Cambodian higher education. Most, if not all, classes were offered in a face-to-face format.

It was not common for students to stay home and access educational content online. Everyone was supposed or generally required to attend classes on campus and be present during class sessions. The situation has changed since the outbreak of COVID-19 that hit Cambodia in early 2020 (see Chet et al.; 2022; Heng & Sol, 2021; Soeung & Chim, 2022 for recent discussions of how COVID-19 has influenced the adoption of online or blended learning in Cambodian education). Although the pandemic has now eased, some classes are offered in a hybrid mode – a combination of online and physical classes. Therefore, there are more opportunities for blended learning in higher education in Cambodia. As Heng and Sol (2021) argued, due to the pandemic, "online learning in Cambodia has gained remarkable momentum as an alternative to face-to-face teaching and learning, allowing education to continue for students" (p. 38).

Better adoption of information and communication technology

The pandemic has served as a catalyst for the greater adoption of ICT in higher education in Cambodia (see Heng, 2021a). In line with the trend toward blended learning, there is an increased use of ICT to facilitate learning and teaching. More university students and teachers in Cambodia are familiar with online learning applications such as Google Classroom, Google Meet, Microsoft Teams, Quizlet, Kahoot, Zoom, and so on (see Chea at el., 2020; Chet et al., 2022; Doeur, 2021). Although research pointed to the challenges Cambodian students faced in continuing their education through online learning (see Chea et al., 2020; Chet et al., 2022; Eam, 2021; Soeung & Chim, 2022), there is no doubt that students have experienced, in one way or another, different online learning platforms and tools while engaging in online learning during the pandemic. This gives them confidence and familiarity in using technology to facilitate their learning even after the pandemic.

The accumulated knowledge and experience in using online learning applications are crucial for fostering positive attitudes toward online learning and teaching. Even though research has indicated that many Cambodian students, whether in secondary school or higher education, wished to return to study in a pre-pandemic condition (see, for example, Chet et al., 2022), there is no way of turning back. Online learning has become too ubiquitous to ignore, and the adoption of ICT in education has never been greater. As Heng (2020b) noted:

> The experience of designing and conducting lessons and classes remotely or electronically is invaluable. The insights gained from such ad hoc initiatives and experiences will have a positive impact on the assumptions, beliefs and attitudes towards e-learning and blended learning both in schools and universities. (p. 4)

Therefore, with the rise of online learning (see Li & Lalani, 2020), the adoption of online or blended learning in higher education will increase, which will in turn promote the digital transformation in higher education, particularly in developing countries such as Cambodia where there was limited integration of ICT in education prior to the pandemic.

Greater opportunities for institutional collaboration

There are also increased opportunities for institutional collaboration. The collaboration can be both locally and internationally. Prior to the pandemic, different types of collaboration had been limited by geographical locations. However, the pandemic has lessened the geographical barriers as communication is conducted almost entirely online through emails and video calls. Since the start of the pandemic, for example, there has been a wide variety of opportunities for institutional collaboration for Cambodian HEIs and think tanks, particularly in the form of webinars, online workshops, and virtual conferences. Although institutional collaboration has been limited among Cambodian universities and between Cambodian and foreign universities (see Sok & Bunry, 2021), the experience during the pandemic will pave the way for more collaboration opportunities in various dimensions, including co-organization of webinars or online events.

In addition, there has been evidence of a greater public-private partnership. The Ministry of Education, Youth and Sport (MoEYS), for instance, has collaborated with both public and private HEIs, development partners, and the private sector to facilitate the continuation of education for Cambodian students during the pandemic (Heng, 2021a). Some Cambodian universities either begin or increase their collaborative activities with other institutions to find ways to enhance their online learning delivery. Others expand their partnerships with foreign partners or multinational organizations (see Heng, 2021b). The collaboration has gone beyond borders, providing Cambodian HEIs with

hands-on experience, skills, and connections that are essential for future collaboration. Given more collaboration opportunities with foreign partners, there is hope for higher education in Cambodia to accelerate its internationalization process and improve research collaboration and productivity.

Conclusion

This article has shown that the digital transformation in higher education is key to enhancing the higher education sector in Cambodia. The article discussed three positive points that Cambodian higher education could benefit from the pandemic-induced digital transformation in higher education. The benefits included (1) increased opportunities for blended learning, (2) better adoption of ICT in education, and (3) greater opportunities for institutional collaboration.

Overall, the pandemic has created a rare opportunity for Cambodian higher education to enhance the integration of ICT in mainstream classrooms. This is essential for embracing blended learning in higher education. The digital transformation in higher education can allow the sector to leapfrog to catch up with educational development in neighboring countries. In this sense, higher education digitalization facilitated by the fast-changing development in technology and the COVID-19 pandemic is a welcoming phenomenon that needs to be built upon. To this end, concerted efforts and attention from relevant stakeholders need to focus on supporting and accelerating the digital transformation in higher education to bring about greater integration of ICT and blended learning in Cambodian classrooms.

Recommendations

To build on this important momentum to expand the integration of ICT and blended learning in mainstream classrooms, the Cambodian government, through MoEYS, needs to increase investment in digital education to transform and internationalize Cambodian higher education. Systematic financial and technical support is, therefore, needed as it is essential for sustaining and increasing the ICT integration in the classroom beyond the pandemic.

Cambodian HEIs also have vital roles to play in enhancing the digital transformation in higher education. As Heng and Sol (2021) argued, Cambodian HEIs need to invest in LMS and be proactive in seeking support to accelerate the integration of ICT in the classroom. They also need to focus on capacity building for their administrative and academic staff to ensure that they are equipped with the necessary knowledge and skills to enhance the effectiveness of online class delivery.

Other stakeholders such as non-governmental organizations, donor agencies, and the private sector also play crucial roles in supporting the digital transformation in higher education. In addition to increasing their financial and technical support, they need to elevate their involvement in the form of collaboration and partnership with the government and educational institutions to enhance the quality of Cambodian higher education.

Meanwhile, university academics and students who are key players in higher education must exercise their agency and increase their actions to build their capacity and interest in life-long learning, teaching, and research. Once they are committed and driven by both intrinsic and extrinsic motivation, they will more likely contribute to fostering an environment conducive to teaching, research, and continuous professional development.

Given that the digital transformation in higher education in Cambodia is a new phenomenon and that research into this area is scarce, this article offers some suggestions for future research. First, future researchers may investigate how different stakeholders in Cambodian higher education perceive this phenomenon of higher education digital transformation. Such an understanding would be useful for policymaking and implementation needed to further enhance the higher education digitalization, which in turn contributes to improving higher education quality and internationalization.

Second, more research is needed to understand how blended learning is adopted and experienced by Cambodian HEIs, academic staff, and students. Large-scale surveys on how university teachers and administrators view the adoption of blended learning and how students think about blended learning are desirable. Findings from such surveys will shed light on how key higher education stakeholders think about blended learning and digital education.

They will also provide direction for policy formulation and implementation to transform education delivery in Cambodian higher education.

Finally, future research may examine the impact of the pandemic on higher education in Cambodia. It may be crucial to investigate how the pandemic has transformed or altered the way of teaching, learning, and management in higher education. What are the negative or positive consequences on higher education resulting from the pandemic? How does the pandemic shape Cambodian higher education, and how can we take advantage of the pandemic to enhance the quality of higher education in Cambodia? Answers to these questions may provide us with valuable insights and empirical evidence needed to move Cambodian higher education forward in order to make it more relevant and competitive in the global knowledge economy.

Acknowledgments

The authors would like to thank Mr. Koemhong Sol, Co-Editor-in-Chief of the Cambodian Education Forum, for his editorial support and the two anonymous reviewers for their helpful comments on an earlier version of this article.

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