

# Cambodia's Pathway to Education 4.0

Martin Sviatko\*

## ABSTRACT

*This research paper seeks to analyze an ongoing fourth industrial revolution and its implications for tertiary education. The paper starts with a brief review of the Industry 4.0 framework, highlighting its trajectory, features, and main attributes. As technological advancement, disruption, and automation of processes appear to be the undeniable hallmarks of Industry 4.0, the global economy is undergoing a significant transformation – thus creating new economic winners and losers, while dodging the conventional East-West, North-South geo-economic divide. With these changes occurring on an unprecedented scale, the limits of traditional tertiary education are being laid bare, revealing a growing mismatch between skills acquisition provided by public universities, and the skills required by businesses. Thus, this paper argues that Education 4.0 should not only be viewed as a necessary requirement for bridging the widening gap between industry and academia, it has become a critical interface for Industry 4.0, with its added focus on relevant and up-to-date acquisition of knowledge, skills, values, and attitudes that are required in the workplace. The section of the paper which presents an analysis of Education 4.0's implementation in Cambodia, proposes a course of action that the relevant stakeholders are compelled to take in order to allow tertiary education to carry out its predominant function: producing future-ready graduates. In its conclusion, the research paper argues that given the magnitude of the ongoing industrial revolution, technological disruptions will only intensify in the future. Therefore, creating a set of comprehensive Education 4.0 policies will become a task of utmost urgency, which policy makers can no longer ignore.*

**Keywords:** *Industrial revolutions, industry 4.0, technology, disruption, automation, education 4.0, Cambodia.*

## 1. INTRODUCTION

In 2019, numerous countries around the world were rocked by civil unrest, triggering deep internal political crises in the context of prolonged global economic uncertainty. Late last year, thousands of discontented citizens gathered in public places in countries and autonomous communities such as Chile, Lebanon, Catalonia, and Iraq to protest against their own governments' particular policies. Although these countries are as mutually diverse as is possible, with the degree of protests also varying from country to country in terms of their intensity and nature – bearing in mind that some of them took an ugly, violent form – it has become increasingly evident that there must be some common denominators behind these anti-government rallies.

Firstly, in almost all of the cases, the protests were initiated by non-partisan activists, who vented their frustrations in a very public manner by organizing

protests, but on a relatively small-scale. In spite of the different social fabric of those countries where these protests took place, the fact that large segments of society quickly identified themselves with the initial acts of discontent – allowing protests to take center stage in the nation's politics – indicates that a large reservoir of discontent was already dormant below the surface well before the first round of protests erupted. That is certainly true with regards to Lebanon and Iraq, where the faulty lines of a political divide have distinct religious and ethnic dimensions. In other words, marginal dissatisfaction has allowed the rise of mass discontent – a textbook example of a nation's act of defiance against its elected representatives. Not surprisingly, the protests led to the collapse of the governments in both countries, therefore bearing a striking similarity with the Arab Spring that swept through the Middle East region in 2011.

Secondly, perhaps with the exception of Catalonia where nationalism or independentismo tends to overshadow Spain's economic woes, what these

\* Martin Sviatko, PhD. Associate Professor, CamEd Business School.  
Email: [martin@cam-ed.com](mailto:martin@cam-ed.com)

non-partisan activists have in common is that an overwhelming majority of them consist of public university students, who are voicing their discontent over rising tuition fees and a lack of proper employment opportunities. Public education, especially in its tertiary form – widely regarded as a pathway to a good life – no longer seemed to deliver on its promises, thereby wrecking both the theory of upward social mobility, as well as the standard economic theory which claims that public education is a prerequisite for a country's economic development. Simply put, having a university degree is no longer enough for getting a decently remunerated white-collar job. This notion was widely acknowledged in Chile and Lebanon, where students' protests right from their onset highlighted a growing mismatch between the skills acquisition advertised and provided by public universities, and those required by businesses.

Furthermore, in all the above-mentioned countries, the problem was further compounded by the fact that students' protests have uncovered another latent economic issue – rising income inequality. Although this element is an integral part of any market economy, and will continue to be so for many years to come, very recent changes in the global economy have heightened this problem, with some economists calling the inequality crisis “as one of the three existential crises that the world is facing today.”<sup>1</sup> Understandably, this situation has left many people feeling perplexed, disoriented and discontented. Fingers of blame have been pointed at the governments of the day, which have quickly become symbols of institutional breakdown, where the social contract or trust between citizens and their elected representatives has been irreversibly damaged. The purpose of this research paper is to understand how this mismatch came to be and what needs to be done to address it.

## 2. INDUSTRY 4.0 ARRIVES

Although there is no universally agreed academic definition of this term, Industry 4.0 refers to the fourth stage of the industrial change that the world has been experiencing continuously over the past 250 years. Industry 1.0, which started around 1760 on the back of steam power, brought about a dramatic departure from the human-dominated workplace once and for all. As machines slowly took over manufacturing processes – marking the onset of mechanical production – productivity and efficiency rose to previously unseen levels. The modern age of technological disruption had begun. Creating a work

environment where machinery and people coexist has not only marked a crucial milestone for a capitalist economy – setting off a process of disruption of jobs and skills that has lasted until today – but has also been seen as the only feasible strategy to transform agrarian society in the fastest and cheapest possible way.

Industry 2.0, or the second industrial revolution, was launched around the 1840s thanks to the creation of railway networks, which linked previously disconnected geographical regions, and the progress made in the field of electrical engineering. If the steam engine enabled the first industrial revolution, then electrification fuelled the second one. As the use of electricity expanded, other technological advancements blossomed, allowing more and more countries to embrace the industrialization process. On the one hand, this stage of development saw increased rates of productivity, largely thanks to mass production techniques. Progress in science enabled medical discoveries and this, in turn, increased people's life expectancy. On the other hand, the work environment witnessed a significant rise in the use of machinery and equipment at the expense of humans, placing machines and people at odds. This pattern was replicated during the last stages of the third industrial revolution, and is likely to become a distinct feature of the fourth industrial revolution.

Unfortunately, indisputable progress achieved during the Industry 2.0 era was squandered by two world wars. In the Western Hemisphere, a period of postwar policies resulted in workers' rights to a fair share of productivity gains, giving rise to a new middle class, particularly between 1946 and 1964. It was members of this urban-based middle class, who spearheaded the third industrial revolution, with digitalization at its core. Perhaps the best embodiment of Industry 3.0 was the creation of computer technology. Technological progress, aided by integration processes within the postwar international economy, made the world connected on an unprecedented basis. And because investments in technology, IT, and telecommunication began producing higher returns than ever before, digitalization has become a focal point of an increasingly globalized economy. The inability to embrace these technological changes contributed to the rapid demise of obsolete, centrally-planned economic systems between 1989 and 1991. The sudden fall of communism is also an indication of the fate of those who decide to abstain from trade, innovation, and investment in technology – be it political organizations, private entities, or ordinary

citizens. And at the turn of the twenty-first century, it has become clear that the new economic winners or losers will not emerge from the conventional East-West or North-South geopolitical divisions, but from within the global market. This stage of industrial development has also been recognized by increased automation, which has significantly reduced the role of humans in the workplace. Obviously, automation in the early stages of the third industrial revolution looks very different from what occurred in its last stage. Enabled by the rise of Artificial Intelligence (AI), automation has been able to absorb more and more complex functions that have traditionally been assigned to humans. In summary, we can say that if the third industrial revolution started with digitalization, then automation of workplace processes does not only appear to represent its last stage, but it can also serve as a link to Industry 4.0 – a term introduced by K. Schwab, the founder and executive chairman of the World Economic Forum.

According to Schwab, “we stand on the brink of a technological revolution that will fundamentally alter the way we live, work, and relate to one another. In its scale, scope, and complexity, the transformation will be unlike anything humankind has experienced before. We do not yet know just how it will unfold, but one thing is clear: the response to it must be integrated and comprehensive, involving all stakeholders of the global polity, from the public and private sectors to academia and civil society. Now, a Fourth Industrial Revolution is building on the Third, the digital revolution that has been occurring since the middle of the last century. It is characterized by a fusion of technologies that is blurring the lines between the physical, digital, and biological spheres. There are three reasons why today’s transformation represents merely not a prolongation of the Third Industrial Revolution but rather the arrival of a Fourth and distinct one: velocity, scope and systems impact. The speed of current breakthroughs has no historical precedent. When compared with previous industrial revolutions, the Fourth is evolving at an exponential rather than a linear pace. Moreover, it is disrupting almost every industry in every country. And the breadth and depth of these changes herald the transformation of entire systems of production, management, and governance.”<sup>2</sup>

As technological advancement, disruption, and automation of processes appear to be the indisputable hallmark of Industry 4.0, the global economy will undergo a significant transformation,

affecting everyone – regardless of one’s race, religion, ethnicity or social status. With these changes happening on an unprecedented scale, the limits of traditional tertiary education are being laid bare. Public protests and riots, mentioned earlier, are clear testimonies to that. Such reality compels us to find solutions to the problems posed by the rise of Industry 4.0. Attempting to overcome a disjoint between industry and academia, Education 4.0 has appeared to address some of these challenges.

### **3. EDUCATION 4.0**

Education 4.0 is not only viewed as a necessary requirement for bridging the widening gap between industry and academia, but by catering for the needs of Industry 4.0, Education 4.0 is poised to become its critical academic interface as it focuses on the acquisition of relevant and up-to-date knowledge, skills, values, and attitudes that are required in the workplace. In short, it aims to seek alignment between academia and the ongoing fourth industrial revolution by means of a comprehensive overhaul of traditional education. In doing so, it urgently calls for the attention of policy makers to make education a top priority for the advancement of the economy.

Given the magnitude of the current, ongoing industrial revolution, it is reasonable to expect that technological disruption will only intensify in the future, but this will not be the only factor that will negatively affect the job market. Industry 4.0 comes at a time when the planet’s population will reach 7.8 billion by February 2020. As this number steadily increases, automation will continue to obliterate occupations. Consequently, the educational sector is facing a perfect storm. Thus, Education 4.0 proposes a course of action that the relevant stakeholders are compelled to take in order to allow tertiary education to produce future-ready graduates with the necessary skills: creativity, innovation, critical thinking, technical skills, and emotional intelligence.

The Industrial Revolution 4.0 is transforming the world through technologies like the Internet of Things (IoT), Big Data, and Artificial Intelligence (AI), which are impacting major industries and jobs. It can be considered similar to the replacement of manual jobs by machine-handled tasks that occurred in the past. This means that Industry 4.0 will not only affect industries, but will also transform the way jobs and education are seen and understood. This has resulted in the evolution of Education 4.0. Thus, it can be said that the fourth industrial revolution

is affecting the roles for which today's students are being prepared. This requires educational institutions to produce a workforce suitable for this technologically transformed era. Furthermore, it also requires the current workforce to upgrade their skills and knowledge to match these newly created job roles. For this, a revolution in education is essential to enable people worldwide to harness the opportunities created by the advent of these technologies. This transformation of the education industry will make it more personalized, peer-to-peer, and it will be a continuing process.<sup>3</sup>

Having explained the changing landscape of the global economy, we can now attempt to highlight the defining characteristics of Education 4.0. In other words, we will primarily focus on the horizontal interplay between the two systems.

It has become clear that Education 4.0 must be designed as a dynamic and highly responsive system, which can accommodate the requirements of Industry 4.0. In doing so, Education 4.0 is poised to become a critical platform for cultivating the work-readiness skills of future graduates. At the same time, it must be designed in such a way that any existing workforce would be able to re-enter academia in order to upgrade their skills. Thus, we foresee the emergence of a two-way cooperation model between Industry 4.0 and Education 4.0. Horizontal alignment between the two entities does not only embody the essence of lifelong learning, it urges private organizations, their employees, and, of course, universities to fully embrace this principle. Furthermore, such alignment allows both systems to tap into those processes that naturally lie outside their domain – a critical step in overcoming the above-mentioned disjoint.

Education 4.0 is working with a narrative that suggests that workplace diversity and its highly competitive environment – aspects of Industry 4.0 – can be replicated in academia. Creating an academic environment which nurtures students' competitiveness – taking the form of a hidden curriculum – would allow students to be fully prepared for the workplace reality. Such replication would allow universities to create the substance of its hidden curriculum, which constitutes a significant part of the learning process. Thanks to the vertical alignment of learning outcomes between academic programs and courses, and between academic courses and lessons, the elements of Industry 4.0 can be streamed into the daily operations of tertiary institutions. Then there is the issue of acquiring those

skills which will secure graduates' employability. Advanced technical, IT, and digital skills will continue to be in high demand – at least until 2030 – when the 6 G Network is expected to be implemented.

These, along with advanced cognitive skills, will remain the threshold requirement for successful employment as “the dominant technologies of Industry 4.0 will be IT, electronics and robotics. But it will also embrace other knowledge areas such as biotech and nanotech. It is to be expected that business in Industry 4.0 will need both enhanced social and technical skills. There will be a shift toward design thinking instead of production thinking.”<sup>4</sup> Thus, the towering dominance of digital skills will not undermine the overall importance of social and emotional competencies in the workplace. One's ability to work in teams, and one's capability to influence, motivate, and lead other organizational members will remain crucial. In other words, one's ability to succeed in the workplace will be determined by emotional intelligence.

As D. Goleman, a leading expert on emotional intelligence, has explained: emotional intelligence or (EI) sets apart which leaders, professionals, or scientists will be the best leaders. Emotional intelligence competencies are learned abilities that distinguish the best leaders from the average: self-awareness, which both lets you know your strengths and limitations, and strengthens your inner ethical radar; self-management, which lets you lead yourself effectively; and empathy, which lets you read other people accurately. You put all those together in every act of leadership. The ability to manage yourself – to have self-awareness and self-regulation – is the very basis of managing others. For instance, science has shown that if you are tuned out of your own emotions, you will be poor at reading them in other people. And if you can't fine-tune your own actions – keeping yourself from blowing up or falling to pieces, marshaling positive drives – you'll be poor at handling the people you deal with. Star leaders are stars at leading themselves, first.<sup>5</sup>

Overall, Education 4.0 must be designed as a highly responsive system, able to tap into processes stemming from breakthrough discoveries in the field of science and technology, as well as from the latest industrial developments. On the other hand, a close collaboration with industry would see businesses adopting the results of research and development carried out by tertiary institutions. After all, this has already been the case right from the beginning

of the third industrial revolution. Thus, mutual understanding and collaboration between industry and academia is crucial, especially if tertiary education wishes to retain its relevance in an environment characterized by constant technological disruptions. The very creation of such an ecosystem, however, requires the critical involvement of another key stakeholder: government, whose role in providing an up-to-date modern infrastructure and a set of social services in this process is indispensable.

#### 4. CAMBODIA AND EDUCATION 4.0

If high-income economies and newly industrialized countries are confronted by the growing discrepancy between industry and academia, the process of creating Education 4.0 is even more challenging for developing countries, whose education systems are often characterized by internal fragmentation and a lack of cohesion. As we will mention later, harmonizing primary, secondary, and tertiary education is a problem which has to be tackled prior to devising any collaborative efforts to bridge the gap between academia and industry. Thus, Cambodia finds itself in a very peculiar situation when it comes to creating a comprehensive Education 4.0 framework.

On the one hand, being a lower-middle-income economy means that the country is yet to fully experience the challenges of Industry 4.0 – although technological disruptions and automation are not complete strangers in the country. Technological transfers in business do occur here, but on a small-scale, largely thanks to multinational corporations and other foreign investors. This reality buys Cambodia some time to prepare itself for the shocks that Industry 4.0 will bring when it arrives. The real problem, however, lies elsewhere. Given the fact that up to 94 % of all jobs are low-skilled occupations<sup>6</sup>, a large section of the population will be at risk of unemployment when the automation and technological disruptions intensify – particularly if we consider the fact Cambodia is already an integral part of the world's economy and its supply chain. In order to withstand the pressure of Industry 4.0 and, more importantly, to prepare for the economy of tomorrow, the country needs to do more in terms of overcoming a major threat of its economic advancement – an inadequately educated workforce.<sup>7</sup> This is exactly where the Education 4.0 framework fits in to offer solutions that the business sector desperately needs.

The presence of tertiary institutions of a private nature offers Cambodia a chance to address both

problems – harmonization of its educational sector as well as bridging the gap between industry and academia. In other words, by relying largely on foreign curricula, private education – in most cases – supports the changing structure of the country's economy. To a large extent, it is the country's private education which facilitates the knowledge transfer, and it is doing so more effectively than public education. Because the primary and secondary education offered in public schools fails to provide students with advanced cognitive skills, or equip them with fundamental EI attributes – such as self-control, self-awareness, self-confidence – a tremendous amount of time and energy is consumed to correct students' deficiencies once they enroll at universities. It is therefore not surprising to see universities' foundation years, devised exclusively to prepare students for the university curriculum, spending several weeks teaching those topics that should have been covered in the primary or secondary schools. Then there is the issue of communicating in foreign languages, particularly those that are crucial for mastering STEM subjects. English – a critical element of the knowledge economy and Industry 4.0 – isn't widely taught in Cambodia to the extent that is common in other countries in the region. "Despite massive efforts to improve the English language skills of its people, Cambodia still lags behind much of the world. The annual English Proficiency Index ranked the Kingdom 94th out of 100 countries included in the study. Cambodia was in the very low proficiency category together with 29 other countries, mostly from Africa and Central Asia."<sup>8</sup> Sadly, this is the reality which necessarily hampers the overall process of nurturing and developing those skills that businesses deem crucial.

To counter such an imbalance in Cambodia's education sector, tertiary institutions have to rely on more than just traditional scholastic procedures. To thrive and succeed, they must deploy a variety of complex strategies. Having integrated principles of outcome-based education in its curriculum, as well as having incorporated workplace reality in its daily academic processes, CamEd Business School is spearheading efforts to lay a comprehensive pathway for the emergence of Education 4.0 in the country.

By linking academia with industry as a key feature of its educational philosophy, the university has already proved to be successful in producing present-ready graduates. By equipping them with those skills that are already in demand in more developed economies,

80% of CamEd Business School graduates have their white-collar employment secured within three months of finishing studies<sup>9</sup> – a very decent number attained in an economic region characterized by high rates of youth unemployment. Having been able to place graduates in jobs consistently over the past decade, thus meeting a crucial requirement of output-based education, CamEd Business School is now fully concentrating on strategies related to improving the living conditions of Cambodians – another key element of outcome-based education.

Accordingly, various corporate social responsibility projects and charity activities, coupled with other field projects, are deployed in order to reinforce principles of project-based learning. Students are required to come up with their own charity projects and implement them during the semester. A successful delivery of such projects is assessed and evaluated, and consequently, rewarded with a certain score which, in turn, carries weight in the overall grading and assessment for particular subjects.

The university's project-based learning operates with a narrative that the students' cognitive, functional, personal, and ethical competencies need to be developed and applied already throughout their academic studies. Such projects provide students with valuable experiences and also lay the foundation for developing their ability to think critically and act proactively – critical enablers of innovation and value-creation. And because Industry 4.0 expects graduates to be technologically savvy, digitalization of teaching and learning lies at the center of the university's academic processes. If Education 4.0 attempts to focus on producing innovators and entrepreneurs, then elements such as project-based learning, student-centered learning, and digitalization of learning must find their way into the explicit curriculum and specific academic processes of other tertiary institutions operating in the country.

Designing sound academic policies and processes, however, is just a part of the university's overall educational philosophy. In order to reinforce student-centered learning, CamEd Business School proceeds with a student class composition strategy, which allows mixing those students who learn relatively fast with those, who can be characterized as slow learners. Informal observations, carried out throughout the academic year, showed that weaker students pay more attention to answers, questions or presentations in the classroom settings given by their stronger counterparts. This creates effective peer pressure,

which ultimately allows students to learn from each other, modifying the traditional role of teachers. This is the very essence of student-centered philosophy. By contrast, creating classes, which exclusively consist of slow learners, only reinforces students' existing poor communication, critical thinking skills, and lower degree of self-regulation along with shorter attention spans. Broadly speaking, as fast learners are absent in these groups, students are unable to learn from each other. Ultimately, they depend heavily on the teacher's guidance, which represents the element of teacher-centered learning. As the vast majority of CamEd students come from the Gen Z segment of Cambodian population, teacher-centered learning – characterized by an autocratic form of teaching – loses its relevance. Though instrumental in making the second and third industrial revolution happen, teacher-centered learning is no longer able to adequately support the needs and requirements of Industry 4.0.

Lastly, mixing fast learners with slow learners also provides the university with an opportunity to instill competitiveness, particularly when institutions of primary and secondary education fail to do so. From this perspective, universities become an instrument of last resort. As Cambodia experiences a steady population growth, whereas AI continues to threaten both blue as well as white-collar jobs, forging a competitive mindset of students becomes the university's unwritten educational philosophy. Thus, by promoting a spirit of competitiveness in the classroom setting, the university's learning process does not occur in isolation from the workplace reality. This has become a key element of the university's hidden curriculum and has further reinforced the university's reputation as a leading institution of tertiary education in the country.

## 5. CONCLUSION

To tackle the challenges of Industry 4.0, Cambodia has to act decisively at the soonest possibility. The rise of Industry 4.0 comes at a time when the country continues to transform its economic system. Guided by the Vision 2050, which aims to turn Cambodia into a high-income economy by 2050, the country has made a step in the right direction. As its vision aims to bring a traditionally agrarian society into the age of modernity<sup>10</sup>, the country's education system will experience a sea change in the coming years. The main purpose of establishing Education 4.0 in Cambodia is to develop the skillset of its population in order to cater effectively to the needs of Industry

4.0. As we have shown earlier, tertiary institutions of a private nature appear to be at the forefront of such efforts. However, they will not be able to complete this task all alone. More needs to be done in terms of harmonizing the country's primary, secondary, and tertiary systems, which have clearly suffered from neglect in the past. This is exactly where the government's commitment to create a set of comprehensive Education 4.0 policies is crucial. Only when the collaborative efforts between the three key stakeholders – government, industry, and academia – are strengthened and enhanced, will the country's tertiary education be capable of fully realizing its potential by producing Industry 4.0-ready graduates.

## Endnotes

- 1 Stiglitz, J. (2019, November 24). It's time to retire metrics like GDP They don't measure everything that matters. Retrieved from <https://www.theguardian.com/commentisfree/2019/nov/24/metrics-gdp-economic-performance-social-progress>.
- 2 Schwab, K. (2016, January 14). The Fourth Industrial Revolution: what it means, how to respond. Retrieved from <https://www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond/>.
- 3 Future Ready Education. (2019, April 8). What is Education 4.0? How you can adapt to this learning environment. Retrieved from <https://www.future-readyedu.com/what-is-education-4-0-how-you-can-adapt-this-in-the-learning-environment/>.
- 4 Roland Berger Strategy Consultants. (2014, March). Think Act Industry 4.0: The New Industrial Revolution – How Europe will succeed. Retrieved from [https://www.agefi.com/uploads/media/Roland\\_Berger\\_Industry\\_4.0\\_-\\_The\\_role\\_of\\_Switzerland\\_within\\_a\\_European\\_manufacturing\\_revolution\\_Etude\\_EN.pdf](https://www.agefi.com/uploads/media/Roland_Berger_Industry_4.0_-_The_role_of_Switzerland_within_a_European_manufacturing_revolution_Etude_EN.pdf).
- 5 Schawbel, D. (2011, September 15). Daniel Goleman on Leadership and The Power of Emotional Intelligence. Retrieved from <https://www.forbes.com/sites/danschawbel/2011/09/15/daniel-goleman-on-leadership-and-the-power-of-emotional-intelligence/#52f5842d6d2f>.
- 6 Flynn, G. (2019, November 20). World Bank report warns of need for diversification and skill development. Retrieved from <https://www.khmertimeskh.com/50661464/world-bank-report-warns-of-need-for-diversification-and-skills-development>.
- 7 The World Bank. (2019, November 19). Cambodia's Future Jobs: Linking to the Economy of Tomorrow. Retrieved from <https://www.worldbank.org/en/country/cambodia/publication/cambodia-as-future-jobs-linking-to-the-economy-of-tomorrow>.
- 8 Senase, J. (2019, November 14). Cambodia lagging in English proficiency: index. Retrieved from <https://www.khmertimeskh.com/659171/cambodia-lagging-in-english-proficiency-index/>.

- 9 CamEd Business School (2018). Strategic Plan and 2018 Action Plans. Retrieved from <https://cam-ed.com/file/Final%20CamEd%20Strategy%202018.pdf>.
- 10 Sviatko, M. (2019, June). Vision and the Nation-State: The Ongoing Transformation of Malaysia and Cambodia. *Journal of Accounting, Finance, Economics and Social sciences*, 7 (1). pp.66.

## REFERENCES

- CamEd Business School (2018). Strategic Plan and 2018 Action Plans. Retrieved from <https://cam-ed.com/file/Final%20CamEd%20Strategy%202018.pdf>.
- Flynn, G. (2019, November 20). World Bank report warns of need for diversification and skill development. Retrieved from <https://www.khmertimeskh.com/50661464/world-bank-report-warns-of-need-for-diversification-and-skills-development>.
- Future Ready Education. (2019, April 8). What is Education 4.0? How you can adapt to this learning environment. Retrieved from <https://www.futurereadyedu.com/what-is-education-4-0-how-you-can-adapt-this-in-the-learning-environment/>.
- Goleman, D. (2006). *Emotional Intelligence: Why It Can Matter More Than IQ*. New York, USA: Bantam.
- Goleman, D. (2000). *Working with Emotional Intelligence*. New York, USA: Bantam.
- Roland Berger Strategy Consultants. (2014, March). Think Act Industry 4.0: The New Industrial Revolution – How Europe will succeed. Retrieved from [https://www.agefi.com/uploads/media/Roland\\_Berger\\_Industry\\_4.0\\_-\\_The\\_role\\_of\\_Switzerland\\_within\\_a\\_European\\_manufacturing\\_revolution\\_Etude\\_EN.pdf](https://www.agefi.com/uploads/media/Roland_Berger_Industry_4.0_-_The_role_of_Switzerland_within_a_European_manufacturing_revolution_Etude_EN.pdf).
- Rugeri, A. (2019, April 2). Why 'worthless' humanities degrees may set you up for life. Retrieved from <https://www.bbc.com/worklife/article/20190401-why-worthless-humanities-degrees-may-set-you-up-for-life>.
- Safi, M. (2019, November 2). Frustration and anger fuel wave of youth unrest in Arab world. Retrieved from <https://www.theguardian.com/world/2019/nov/02/middle-east-young-frustration-joblessness-fuels-protests>.
- Schwab, K. (2016, January 14). The Fourth Industrial Revolution: what it means, how to respond. Retrieved from <https://www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond/>.
- Schawbel, D. (2011, September 15). Daniel Goleman on Leadership and The Power of Emotional Intelligence. Retrieved from <https://www.forbes.com/sites/danschawbel/2011/09/15/daniel-goleman-on-leadership-and-the-power-of-emotional-intelligence/#52f5842d6d2f>.
- Senase, J. (2019, November 14). Cambodia lagging in English proficiency: index. Retrieved from <https://www.khmertimeskh.com/659171/cambodia-lagging-in-english-proficiency-index/>.
- Srey, K. (2018, May 11). New CamEd graduates ready to rule. Retrieved from <https://www.khmertimeskh.com/488184/new-camed-graduate%E2%80%8Bready-to-rule/>.
- Stiglitz, J. (2019, November 24). It's time to retire metrics like GDP They don't measure everything that matters. Retrieved from <https://www.theguardian.com/commentisfree/2019/nov/24/metrics-gdp-economic-performance-social-progress>.
- Sviatko, M. (2019, June). Vision and the Nation-State: The Ongoing Transformation of Malaysia and Cambodia. *Journal of Accounting, Finance, Economics and Social sciences*, 7 (1). pp. 61-69.
- The World Bank. (2019, November 19). Cambodia's Future Jobs: Linking to the Economy of Tomorrow. Retrieved from <https://www.worldbank.org/en/country/cambodia/publication/cambodias-future-jobs-linking-to-the-economy-of-tomorrow>.