UNLEASHING THE POTENTIAL OF ARTIFICIAL INTELLIGENCE FOR CAMBODIA

August 15, 2019, CDRI, Phnom Penh

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During the last twenty years, Cambodia has experienced spectacular economic growth and development, which have been among the highest in the world. Cambodia reached the status of a low middle income country in 2015. Large numbers of people have moved out of poverty, and a growing lower middle class has emerged. However, this growth has had two drawbacks. First of all, it has been primarily in low value-added areas such as garments and footwear, producing a low-level equilibrium economy, in which there are several hundred thousand jobs and a relatively unskilled workforce. The second problem is that this growth and development process has taken place only in a few cities, while parts of the countryside have remained underdeveloped. In contrast, Southeast Asian countries such as Singapore, Thailand, and Vietnam have developed a more sophisticated economy with an increasing focus on higher value-added goods and services.

Despite some initial limitations and challenges, digital technologies such as Artificial Intelligence(AI) have already benefited population, and reconstruction needs. AI improves the delivery of health services in resource-limited countries. Automation and AI will revolutionize manufacturing in the emerging era of Industry 4.0. AI revolutionizes the teaching and learning in smart classrooms and can also become a potential "teacher", if used to provide educational solutions to a myriad of practical challenges faced by developing countries. Furthermore, AI will become an increasingly important part of secondary education, higher education, and TVET in developing countries. In smart agriculture, AI helps to plant, monitor, predict, weed, and harvest crops. AI assists in emergency responses to natural disasters through the monitoring of large-scale movements of training young people to prepare for future technologies.

For Cambodia, it is vitally important that we realize the inescapable truth: AI and robotics are upon us, and will increasingly impact all areas of the economy in the near future. AI as an educational tool and indispensable technology must be embraced, if the country is to become competitive in the regional and international economy. The large number of job seekers entering the economy every year must be trained to meet the need of manpower for the new era of industrialization. Anything short of this will keep Cambodia in the bottom ranks, as a low-cost equilibrium economy producing low value-added, labor-intensive products such as garments and footwear. Hence, AI will play a key role in driving the future economic growth of Cambodia.

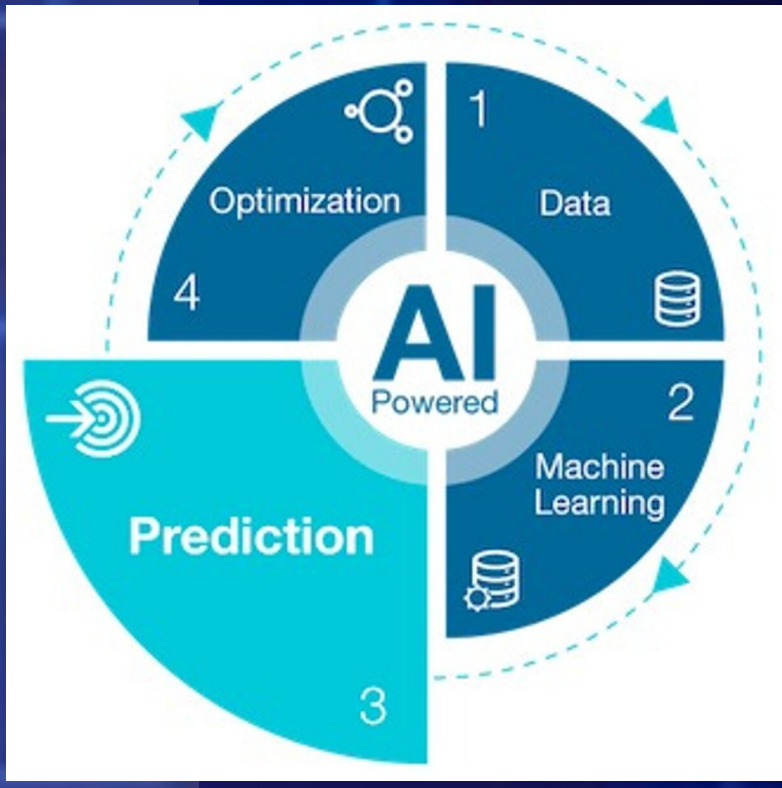
The first industrial revolution, which started in England in the late 18th century, produced a bifurcated world economy, in which the industrial states became dominant economic forces, and the developing countries became exploited entities producing the raw materials that are needed by economically-advanced countries.

A serious form of economic and political dependency emerged. The same process may occur again unless developing countries take proactive steps to be at the forefront of the new technological revolution, by filling the digital gap. In this way, we can become equal partners, not second-class economies and societies of dependence on others.

The remedies needed to address the low absorption capacity of new technology are in education, where vocational training must be further improved so that Cambodia can sustain FDI at a higher level of technological sophistication, as well as improved infrastructures. Unskilled and semi-skilled garment workers must be retrained, or upskilled to do the simpler activities associated with automation, robotics and AI. The best and brightest of Cambodia's brain power must be nurtured to develop a highly-skilled workforce that can handle advanced tasks associated with AI, and design AI development programs. This calls for a multifaceted training program: Retraining those who are at risk of losing their jobs, and training those who will develop AI in existing industries. TVET and university curricula must be revamped, in consultation with the business sector, the government, and other relevant development partners.

Is there a way that Cambodia can "leapfrog" its competitors and become a leading force for development in the region? This opportunity exists, and it is focused on the new industrial revolution being driven through digital transformation in multiple dimensions: mindset, political will, policy, funding, manpower and relevant infrastructure. To capitalize on digital transformation, there is a need for strong government-driven and sustained ecosystem. In practical terms, there is a dire need for a national task force to examine the challenges and opportunities of AI, to propose specific policy options for all players to maximize productivity in the incoming industrial revolution.

This national task force should consist of visionary brains in the government, private sector, academia, and other relevant stakeholders. It may be advantageous to work with similar regional organizations, where a national effort is underway to capture the full potential of AI's applications in order to boost national economic growth.



A Cambodia-based "brain trust" can propel this country to the forefront in this region. Such development would have important add-on effects in terms of new economic units, better opportunities for trained young people, and an escape from the low-level equilibrium problem now characterizing Cambodia's economy. While such a brain trust is an absolute necessity for the leapfrog, sufficient funds must also be established to train the experts and leaders who will spearhead this movement.

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