A Vision for 21st Century Education

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Globalisation, population dynamics, fast growing demographics and technological advancements are some of the key changes of the future. Today's students will have to be prepared to face sizeable challenges yet also know that many opportunities are brought about by those same forces. The person who is schooled in today's education system – from elementary to universities – has to learn the necessary skills and knowledge to take on challenges in the future. More specifically, this writer envisions that the 21st century student must have three core competencies, including: 1) civic literacy, global awareness and cross cultural skills; 2) charismatic and compassionate personality and the ability to embrace cultural diversities; and 3) ecological literacy, and the ability to collaborate with international communities in sustainable projects. Adding to these three categorical competencies, today's student also has to learn a specific set of technological skills to succeed in the 21st century workforce, predicted to be robustly rooted in artificial intelligence – hyper-connected systems with minimal human intervention.

As the world is on the cusp of the 4th Industrial Revolution, a term coined by Professor Klaus Schwab, founder of the World Economic Forum, our educational top minds have to rethink the old ways of doing things. Almost everything of what we know today is based on a paradigm that was conceived 50 years ago. The latter is rapidly obsolescing as a new paradigm continues to grow, one that is driven by a major technology shift from computer systems to integrated cyber, autonomous and intelligent systems. We have to remember as we prepare for the future's education that we cannot engage in old model thinking, overly extrapolate old achievements, styles and methods, and naively modify yesterday's strategies. Using old visions for a new world is not only limiting but also futile. Hence, a paradigm shift also needs to be accompanied by a mindset shift, which includes the cross fertilisation of knowledge across rich intellectual traditions, a strong intellectual foundation for a sustainable society and charismatic leaders.

As pointed out earlier, there are three competencies that are much needed by our students today, so they will be able to capitalise on the rich opportunities of the new digital age. But there are many obstacles to reaching these much needed competencies, especially if we stick the same traditional one-way oriented teaching styles. In other words, the conventional styles in higher learning institutes, for

example, have failed to empower students because they view them as lacking skills, inexperienced and short on capabilities. This assumption is wrong because students (especially postgraduates) also bring their existing social networks to the classroom. Because the lecturer is positioned as the primary source of knowledge and expertise, students' networks, knowledge, and experience are left at the periphery. Another issue is the standardised tests and competitive examinations in the majority of the world's schools, which are the main obstacle to 'exploring', 'independent thinking' and 'creativity'. This type of teaching approach cannot work anymore in a world that demands breakthrough inventions by creative entrepreneurs, problem solvers, and trans-disciplinary perspectives. Highly-skilled talents who can improve social problems, individuals with 'can-do' spirit, people with technical competencies and above all charismatic young people with entrepreneurial drive are in hot demand.

Another key area in today's critique of education is the environment and its associated studies. Alas, we have yet to solve environmental problems despite the fact that education and knowledge are more accessible than they were 40 years ago. Leaders in education and think tanks, must take an evolutionary view of the future of our environment. The common thinking prevails: that the industrial development model is sustainable. The problem with that thinking is that it was laboured a long time ago, under the misapprehension that growth in the economy should come at the expense of the environment. Today's generation can no longer take that view of the economy and the environment. Instead a radical vision is required through the means of education systems. Here are three examples where a paradigm shift in education might offer a new vision about the future of our society and its environment.

Firstly, we must leverage on diverse expertise—religious, industrial, scientific—in green education initiatives and programs. Previously, this strategy might not have gone far enough to capitalise on diverse expertise in environmental education. At the recent *International Seminar on Islam and Green Technology* (held in IAIS, November 2017), some speakers pointed to it as a critical foundation in creating a sustainable society. Also, at the time of writing this article, there is an ongoing collaborative effort between IAIS and the Global Environment Centre (GEC), defining the novel module on the role of Islam in River Protection.

Secondly, concerning teaching about the environment, it is especially crucial to think about how top minds can train students so the latter can effectively combine the synergy between the environment, its problems and its solutions. This approach is advisable as it is expected to prepare a class of nature smart students, who can develop plans for today's enterprises that aim to maximise improvements in human and environmental well-being. Such education makes

innovation, creativity and technology a societal concern for the benefits of all. An environmental education that has such an integrated training program is critical in educating students to prosper in a sustainable society.

Thirdly, to create a visionary mindset in today's society, it is better to increase the number of young scholars and energetic entrepreneurs who are forward thinking and who are willing to engage the public. At this point, many higher education institutions (especially the top 10 universities in the world) have been at the forefront in rethinking the old ways of doing things. Utilising this promising scenario, this writer recommends exploratory ways toward developing 21st century education by increasing the nation's stock of social capital (e.g. community engagement for developing trust among key stakeholders); by developing human capital through training programs that offer the aforementioned three core competencies; and by scaling up the number of tech-savvy elites for the betterment of all in the future.

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