

## Futures of Higher Education in Post-Digital Age

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### The Changing Paradigms and Ecosystems of Higher Education

Education has long been “provided” under the westernized “*Modernization*” paradigm which advocates that “*development equates economic growth*” and that education should be based on efficiency-driven approach. Primary role of higher education is to produce high-level manpower, that is, “modern men” who can do productive work and process necessary KAP (Knowledge, Attitudes, Performance) for leaders, experts, or “head” of organizations. Opportunity to access higher education is thus highly competitive. The model was met with a lot of criticism. Alternatives for development and education such as “*development equates social reform*” or the most widely accepted paradigm of “*sustainable development*” and the Sufficiency Economy Philosophy (SEP), bestowed by His Majesty the late King Bhumibol Adulyadej, were proposed. Under this balance-growth development paradigm, education has a major responsibility to enhance the well-being of individual, society, and the planet. Higher education thus gives more emphasis on the three dimensions of sustainability (economic, social, environmental) and new learning modes such as project-based, community-based, and service-learning. At present, we have approached an era of *Digital Age* with a rapid and disrupt technological transformation. Higher education is expected to play a major role in producing high-level innovators and digital intelligent and literate citizen. Three decades from now when we approach the *Post-Digital Age* in 2050, this paradigm might not be relevant. Many literatures have forecasted a lot of shifts in the ecosystem of higher education in which *new norms, new lifestyles, and new mindsets* will be required.

**Shift#1 Technological Shift.** Continuous disruptive innovation in the VUCA world will accelerate. Virtual and digital technology will reshape our life and activities. Technology investment and innovation capabilities, which accelerating and creating new markets and extinguishing existing ones, remain key driver for prosperity and advancement. A significant number of emerging technologies is based on Artificial Intelligence (AI) of which the progression of capabilities is expected to be near limitless. Intelligent machines, robots, or even humanoids will accomplish more and more ambitious tasks. AI promises vast future potential alongside concerns for human values and balance between “humans & machines”. Under value-based system to prioritize people, policies will be developed to assure that AI will be directed at “humanness” and common good.

**Shift#2 Socio-Cultural Shift.** In 2050, ageing population will be majority. With the advancement of healthcare and medicine, a picture of “forever young” phenomena is foreseen. Others predict that policy makers and health experts will have to find solutions for myriad health and caregiving challenges to deliver care to chronic illness, emerging diseases, rare diseases, and age-related diseases or pandemic. Healthcare expenditure will rise tremendously and there will be endless demand for medical doctors, nurses and personnel. Living longer will also affect retirement age, lifestyles and working pattern. More people are on the move. Major cities will still be overcrowded. There is a forecast that people are more eager to learn due to the present trend that the majority of international migrants in 2019 are not refugees or asylum seekers but are defined as migrating for better economic, educational or other reasons (Roland Berger Trend Compendium 2050). Cultural diversity will be more appreciated and values will be given to local, indigenous culture. Interestingly, trends in politics and governance are

dichotomous. It is predicted that the decline of electoral democratic traits will accelerate. Nation-divided, peace and conflict issues will remain. However, there will be more call for partnership, inclusive society, and multicultural society.

***Shift#3 Economic and Power shift.*** There will be new meaning for occupation and profession and “job-hoppers” will increase. New technologies in financial services, business models and new analytics opportunities like big data, customer intelligence will increase competition for new players. Measures of growth in terms of GNP will be challenged by alternatives such as GNH (Gross National Happiness) and sustainability. There will be a shift from “Globalization” to “Localization”. “Silk Highway” will emerge as new global geo-political-economic power. Asia will reaffirm its position at the centre of global economic power. This is forecasted based on the agreement of the Regional Comprehensive Economic Partnership (RCEP) in 2020 by the ten ASEAN member states plus five other countries in the Asia-Pacific region, including China, Japan, South Korea, New Zealand and Australia. The agreement accounts for almost 30 percent of world trade with the countries involved representing around 2.2 billion people, making the agreement the largest free trade area in the world.

***Shift#4 Environmental Shift.*** Scarcity of natural resources, environmental and climate-change/pollution crisis will be more critical. There will be an increasing demand and expansion of “social movement” and global actions for limited natural resources (food, water, energy, raw materials, and mineral resources) and urgent call to protect biodiversity (endangered plants and animals), habitats and the global climate. Increased political and public pressure and stricter regulation to reduce carbon footprint will lead to the production of decarbonization and more sustainable products and technologies.

***Shift#5 Educational Shift.*** Quality education will continuously be taken as basic human rights, not only basic education but also higher education as well as lifelong and lifewide learning. Our world will be inhabited by more and more educated people as the share of people with no education decreases continuously. Staying in education longer is the new global norm and still growing to 2050. There will be changing attitudes towards education, more public investments, and new methods, such as the opportunity to study through online courses without the requirement of physical presence. However, a huge gap between the least developed countries and the developed ones in the investment of education, research, and technology will make catch up by developing countries difficult.

### **Higher Education 2050**

***New Meaning (Why, What).*** Societal assumption designates the basic assumptions of higher education. Despite a huge demand in the Post-Digital Age, the existence of traditional higher education and institutions is challenged and we need to redefine the purposes of higher education. The “I-shape” scholars who process depth of related skills and expertise in a single field, are inevitably necessary both in the applied sciences and “foundation” academia such as philosophy, basic sciences, and humanities. However, we need more “T-shape” persons who are experts in the field and across disciplines since working patterns change rapidly due to technological advancement and the above shifts. Learning options will then be mixed with plenty of old and new. There will also be new “meaning” of hard skills, degree, disciplines, and major areas of study. The future world requires inter- or multi-disciplines and needs graduates with life/soft skills, especially learning skill since people will need to learn, relearn, and unlearn. University will still be at the forefront of research, technology transfer and practical application for knowledge and innovation, especially high-end R&D. We need more established networks of higher education and research institutions, public/private sectors, and

technology companies. Most importantly, we must keep in mind that higher education should produce graduates who are “humanized” innovators/experts/technocrats. Learning to know, learning to do, learning to live together, and learning to be are still the main pillars of education but learning to transform and learning to become will be focal points of higher learning.

***New Process (How, Where, When).*** Learning happens at any time, any place. Physical structure and configuration of the places of learning will be more flexible because learning won’t be limited to a physical school. There will be “no one model” modes of educational provider and more education will take place “in the field”. “Company” schools and partnerships such as U-P-P-C (University, Public, Private, Community) model will gain more popularity. “One-size-fits all” curriculum and learning will be questioned. With the rise of EdTech, variety of new modes such as blended, remote, and self-learning will be provided. Technologies will facilitate teaching and learning process which will be more creative and practical. Students will be assessed on critical-thinking and problem-solving skills. Testing will be replaced by students’ performance through creative projects. Opportunity to study through online courses without the requirement of physical presence will be widely provided. Regulations regarding attendance, years of study, graduation will have to change. There will be a big challenge for accreditation. In addition, tuition fee and government subsidies will no longer be the main income because more revenue will come from innovations and start-ups.

***New Learners (For Who).*** Higher education for all will be basic human rights. However, number of traditional learners will decline while the number of non-traditional learners will increase. Traditional learners are “New Generation” students who hold different beliefs, attitudes, interests, and learning behaviours. Non-traditional learners include the mid-career changers, ageing persons or even high school students who are interested to learn, relearn, or unlearn. They might not require degree program but need different modes of learning provision such as modular, short courses, and other skill-focus programs.

***New Teachers (By Who).*** The role of a professional teacher will include life designer and life coach who help identify student’s strengths, interests and values. In 2050, it will not be necessary for students to select colleges or majors they want to enrol because the world of work and way of life change rapidly. Hence, teachers should perform as facilitators to support students in developing their way of thinking and learning. They should develop learning plans for students to obtain all necessary set of skills to be adaptable to whatever career paradigm that will emerge. Their primary job will be to guide students in the areas where they need guidance as innovators and nurture them to become a holistic person. In addition, virtual teachers and even “teacher robots” or “research robots” will be more utilized. But keep in mind that people matters because only human can transfer learning and values.

### **Pathways for Higher Education to Contribute Better Futures for All in 2050**

***Redesign Higher Education.*** We need to refocus higher education to keep up with the above shifts and rethink of what training and education which lead to better futures for all will look like. In 2050, there will be variety of higher education institutions with new meaning, new process, new learners and new teachers. Criteria for selection, application, enrolment, graduation and modes of learning will be flexible and made possible for all. However, each institution should set goals and priorities which will be the focal points for policies and practices, i.e., research university, sustainable university, community engagement university. In addition, even though the role in disseminating technological advancement and innovation is inevitably, the mission to nurture “reciprocal citizen” and genuine human being who has a

‘Balanced Life’ which comprises Head (wisdom), Hands (life and work skill sets), Health (energy to work and live) and Heart (passion and compassion) is also imperatives.

***Vision planning for Academic Programs and Learning Activities.*** “Better Futures” will have different meaning for each learner. Curriculum and learning management innovation are needed. More emphasis should be given to the quality and relevancy of the content in the provided courses and programs of study. Personalized Life Design Curriculum should be encouraged since teachers will play more role as facilitators, life designers, and life coaches. Open-source curriculum, online or blended learning with responsible self-learning and self-coaching should also be promoted so that all learners will have access to higher education. In order to achieve this mission, re-regulation and redefining learning outcomes and evaluation as well as preparation for “quality, accessible and affordable” infrastructure for all in the university must be planned and implemented.

***Train and Retrain Academic Staff.*** Any innovation will not occur unless academic staff, especially the most important persons in learning –teachers, are aware of the necessary for change and agree to transform themselves. They must be equipped with necessary skills for coaching, facilitating as well as coping with and designing innovative modes of learning. University should appoint responsible administrative office for training, retraining and reskilling academic staff. At national level, this requires a major reform in both pre-service and in-service teacher education.

***Partnerships with All Stakeholders.*** Stakeholders of higher education 2050 will play important roles in assisting universities to design curriculum, learning, and extracurricular activities which will be responsive and relevant to the needs of learners and society. As mentioned earlier, in the future, more education will take place “in the field”. Promoting mutual collaboration and networking between universities and all stakeholders at local, national, regional, and international levels will then be a major task. “All for Higher Education” will certainly be another key driver for better futures for all in 2050.