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Session 10D: Weds 6<sup>th</sup> March, 15:15 – 15:45

Higher Education to Transform, Transfer, and Together for a Better World

Anoop Swarup Association of Universities of Asia Pacific, Australia

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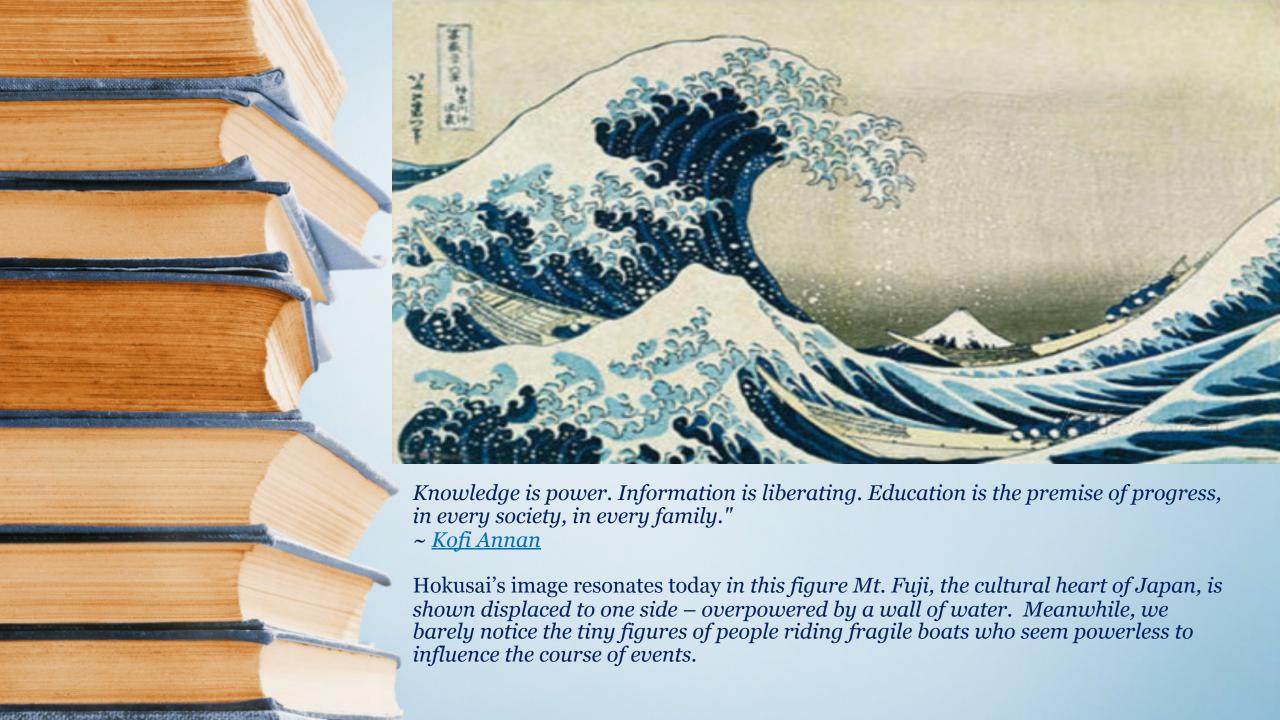
# Higher Education to Transfer, Transform and Together for a Better World

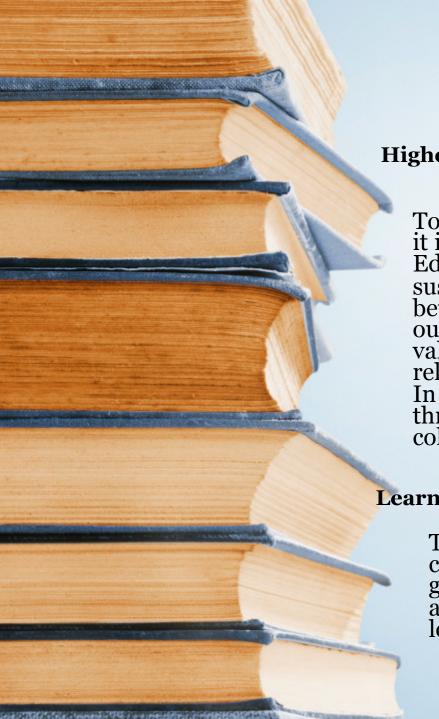
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## Higher Education to Transfer, Transform and Together for a Better World

**Higher Education to Transform, Transfer, Together for a Better World:** 

To ensure effective and dynamic partnerships in the asia pacific and the world it is critical to have increased access to transformative technology. The Higher Education sector is witnessing a turning point and new pathways for sustainable economic, environmental, and social change. Reimagining a better world entails learning new opportunities based on new knowledge of our civilizational ascendency, technology-driven such as artificial intelligence, values that impart life skills. The leaders of tomorrow's world need industry-relevant skills to be active participants in shaping their educational journeys. In the asia pacific Higher Education Institutions must be ahead of the curve through an exchange of ideas, knowledge, and best practices sharing and collaboration that the Universities of Asia Pacific (AUAP) strive to foster.

## **Learning Objectives:**

The learning objectives of the session for resilient multisectoral collaboration is to highlight the importance of partnerships that involve governments, non-profits, businesses, academia, and communities. These are by knowledge sharing, innovation, invention and technology driven, local engagement, measurable goals, best practices and policy alignment.



The Emerging Paradigm: Future of Higher Education,

Welcome to *Future Higher Education* in times of VUCA, now a popular acronym for volatility, uncertainty, complexity and ambiguity for developing transformational and sustainable models of student centric, industry aligned, data driven and scalable mantras for personalised higher education.

In this *Age of Change and challenge, we have Innovation*, and these are the quintessential and timeless human values now being challenged in an age of disruption on the anvil of emerging technologies and innovation.

Yes, in times of stability, we only require incremental adjustment and finetuning but the Universities today confront radical change that requires bold innovation.

Steve Jobs once famously observed that in a time of crisis "The cure for Apple is to innovate its way out of its current predicament." Perhaps, it is here that edupreneurs will guide the course of evolution for the universities of tomorrow.

Knowledge coupled with creativity and innovation is the most powerful currency that Universities create and contribute to society and the humankind and define higher education's purpose, as we address problems that have no borders in an increasingly flat world.

Before the Pandemic about 5 million students travelled abroad in pursuit of higher education while international students had been increasing by roughly 12 percent each year in the 21<sup>st</sup>century in terms of UNESCO. At the same time, international research collaborations have flourished with *more than three-quarters of scientific articles published in journals were the product of at least two institutions, and one in three articles was authored by a global team.* 



## The 10 Predictions to change the World by 2030

Health care innovation will reach warp speed
A cure for cancer may be around the corner
Cash will be but a distant memory
Semiconductors will be everywhere — and in everything
Wearable technology will blur the lines of reality
Digital entertainment will take centre stage
Autonomous vehicles will hit the fast lane
Green machines will rule the road
Renewable energy will power the world
Innovative companies will make the world better

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## **Changing Paradigms in International Higher Education:**

The OECD predicts that between 2013 and 2030, the number of university graduates will double and 40% of these will be from China and India representing a huge proportion of the global talent pool.

The World Conference on Higher Education, was a watershed as it came up with the World Declaration on Higher Education for the Twenty-First Century: Vision and Action, 9 October 1998, However since then there has been a paradigm shift in Higher Education with the digital revolution sweeping the higher education landscape across the globe particularly post pandemic.



## **Precepts of the Past Perfect : World Conference on Higher** Education

Let us have a relook at those Articles:

Article 1 - Mission to educate, to train and to undertake research

Article 2 - Ethical role, autonomy, responsibility and anticipatory function

Article 3 - Equity of access

Article 4 - Enhancing participation and promoting the role of women

Article 5 - Advancing knowledge through research in science, the arts and humanities and dissemination of its results

Article 6 - Long-term orientation based on relevance

Article 7 - Co-operation with the world of work and anticipating societal needs

**Article 8 -** Diversification for enhanced equity of opportunity

Article 9 - Innovative educational approaches: critical thinking and creativity

Article 10 - Higher education personnel and students as major actors

Article 12 - The potential and the challenge of technology

Article 13 - Strengthening higher education management and financing

Article 14 - Financing of higher education as a public service

Article 15 - Sharing knowledge and know-how across borders and continents

Article 16 - From 'brain drain' to 'brain gain'

**Article 17 -** Partnership and alliances

## **Precepts of the Present : World Conference on Higher Education**

- The UNESCO World Higher Education Conference (WHEC2022) attended by 2500 higher education stakeholders in Barcelona, Spain, from 18 to 22 May 2022 to reshape ideas and practices in higher education for sustainable development.
- It was stated that out of 235 million students worldwide, 6 million are studying abroad, up from 2 million in 2000. More than half of the 6 million are studying outside their region.
- It was purported to be a transformative event globally, to achieving SDG 4.3 on quality tertiary education. Proposed to be a powerful tool for creating a more equitable, accessible, and sustainable future for all, it's a call to action for educators, policymakers, and students to come together and build a world where all have opportunities to learn, grow, and succeed.
- In November 2019, the <u>Global Convention on the Recognition of Qualifications concerning Higher Education</u> was adopted by the 40th session of the UNESCO General Conference, becoming the first United Nations treaty on higher education with a global scope.
- The Global Convention establishes universal principles for fair, transparent and nondiscriminatory recognition of higher education qualifications and qualifications giving access to higher education and offering avenues for further study and employment.
- The Global Convention, commits to strengthening international cooperation in higher education, raising its quality at home and worldwide, and helping make academic mobility and the recognition of qualifications a reality for millions around the world.
- The Global Convention <u>entered into force</u> on 5 March 2023 and as of January 2024, <u>27</u> States had ratified it.



Post Pandemic Future, the Aftermath of Tsunami:

Studies on internationalization and the future of higher education is of prime interest to policy makers, educationists, and leaders.

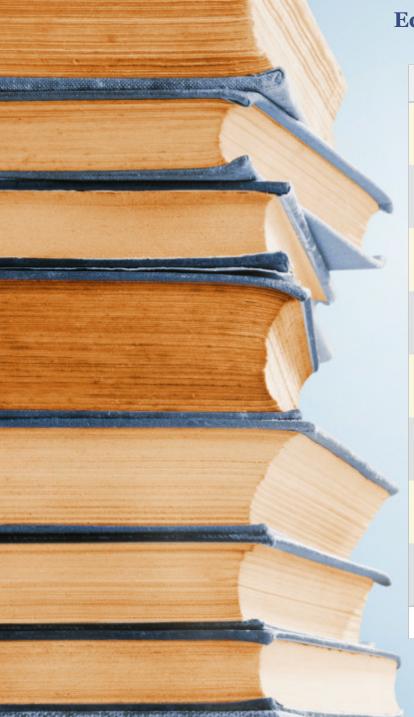
Economic performance is affected by the growing cross-border flows of knowledge, knowledge workers, and students to cite: Organisation for Economic Co-Operation and Development [OECD], 2004; NAFSA, 2010, cited in Hawawini, 2011; United Nations Educational, Scientific and Cultural Organization [UNESCO], 2009).

Studies based specifically on the changing paradigms in higher education have been undertaken in numerous regions of the world, which shows the importance given by researchers and reflects the respective nation's keenness to adapt, evolve and internationalize.

The proposal by the European Commission for a new 'ERASMUS for All' programme reflects this global approach to ERASMUS and the ambition of the Commission to extend the scope and targets of the programme: in 2021 it supported 19000 projects involving 71000 organisations with a total budget of Euro2.9 billion.

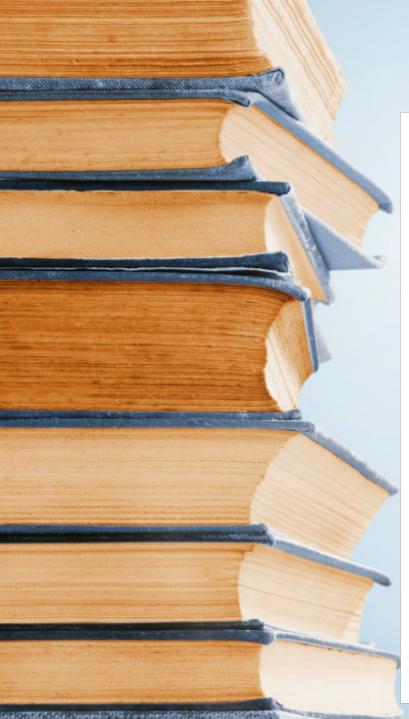
It may be interesting to note that 15 years back on 22 March 2012, the House of Lords) released a publication on *The Modernisation of Higher Education in Europe* and proposed that the Commission should promote mobility opportunities and make ERASMUS placements more flexible.

Perhaps everything has changed over the past decades with regard to the internationalisation of higher education, and the change is for a more cooperative model from a more competitive model in a virtual world where market forces become are even more aggressive than ever before.



## EdTech and the Future: An Analytical View by McKinsey

	Do you really innovate?
Aspire	Do you regard innovation-led growth as critical, and do you have cascaded targets that reflect this?
Choose	Do you invest in a coherent, time- and risk-balanced portfolio of initiatives with sufficient resources to win?
Discover	Do you have differentiated business, market, and technology insights that translate into winning value propositions?
Evolve	Do you create new business models that provide defensible and scalable profit sources?
Accelerate	Do you beat the competition by developing and launching innovations quickly and effectively?
Scale	Do you launch innovations at the right scale in the relevant markets and segments?
Extend	Do you win by creating and capitalizing on external networks?
Mobilize	Are your people motivated, rewarded, and organized to innovate repeatedly?
Source: McKinsey analysis	



## EdTech and Universities of the Future Four Interrelated Trends that Poise to Unwind the Old Rules

## More connectivity



## Lower transaction costs



- Rising interconnectivity speeds disruption, upending the principles for disruptive innovation
- Free-moving information bypasses—and challenges existing hierarchies
- Barriers to entry and costs to achieve scale are evaporating
- Internal bureaucracy presents more friction than external interactions and free-market transactions

## Unprecedented automation



Fundamental societal shifts

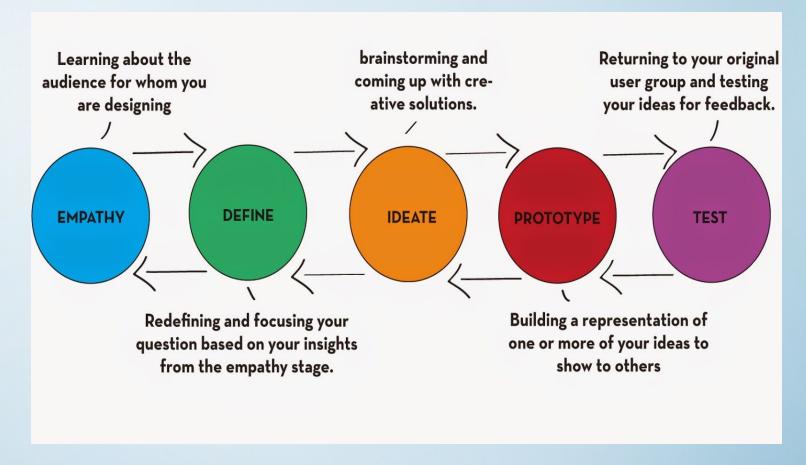


- Increased automation undercuts the mechanistic thinking upon which organizations were created
- 200 years of management thinking on control and predictability become obsolete
- Gen Z and beyond will have new, fundamentally different career aspirations
- Expect more variety and learning, more leadership and promotion opportunities, more social impact, and more career mobility

McKinsey & Company



## **EdTech and the Future: Design Thinking**





It is in this backdrop that it may be interesting to take note that in a report for Australia more than a decade back as early as in 2012 by Ernst & Young, captioned, 'University of the future: A thousand year old industry on the cusp of profound change'. Incidentally in just a decade this model has been turned upside down, but worth a look at the tremendous pace of change!

It was perceived that in the brave new world of the universities of tomorrow, five key trends would drive future change. These are:

1) Democratisation of knowledge and access;

2) Contestability of markets and funding where universities will need to compete as never before;

3) Digital technologies will transform higher education delivery and access to create value;

4) Global mobility will grow for students, academics, and university brands to intensify competition and create opportunities;

5) Integration with industry by the universities will be imperative as drivers of innovation and growth.

Surely much has changed since the report, now some of these very technologies particularly block chain, internet of things and artificial intelligence has turned from enablers to be major disruptors, the end result is a revolutionary change for a model now being driven by character, creativity and cooperation.



## **Technological drivers of change**

Indeed, to evolve strategies for building successful universities of the future the universities have to be *Door Openers* in a rapidly globalising world. It is important to follow the emerging 5 Technological Trends that are shaping the educational landscape in the next few years.

## 1. Big Data

Big Data, combined with predictive analytics, has great potential to **personalize learning** and bring students up to speed in exactly the areas where they're falling behind.

## 2. Open AI

Open Ai applications such as Chat GPT, Other competitors such as Anthropic, Pryon, and Quantic Brains Technologies provides artificial intelligence safety and research services specializing in developing general AI systems and language models. Googles artificial intelligence chatbot Bard is the answer to hugely popular ChatGPT now with multimodal functionalities like sight, sound and speech. The top AI labs worldwide, as identified by researchers from DeepMind, OpenAI, and Fair AI, demonstrate the immense impact and potential of AI research and development.

## 3. Augmented Reality

The **absolute Matrix**, ladies and gentlemen, is already there though a really low-level version, but it is here. As an example of one of AR's educational applications, the Art gallery, to view each piece through our phone (such as the Samsung VR Gear Handset) to juxtapose the real-life artwork with a complementary piece of art stored in the cloud is possible now.



## Technological drivers of change

### 4. The Semantic Web

The web has evolved tremendously since its creation, having moved incrementally from Web 1.0 to where we are today, Web 4.0 and everything is going to be connected."

#### 5. Extreme BYOD

The driving force behind the movement of *bring your own device* (BYOD) is that actually "everybody wants their own individualized workspace." As educators we need to support students on their BYOD possessions, also helping them make distinctions between their real lives and their digital lives.

#### 6. Transmedia

Transmedia storytelling is underutilized in education, as the greatest portal into the multiuniverse we have. If used properly, transmedia would give educators and students the opportunity to tell stories in a variety of ways and span the gap between critical thinking and creative thinking, forming a new and exciting "creatical thinking."

7. *Instant and Realtime Translation* Letz Chat, Mars, Google and many other instant language translations have enhanced the outreach as also the very nature of Edtech both in learning and research cooperation and capabilities across continents.



Post Pandemic Disruptions: Universities of the Future, the Aftermath of Tsunami: In Doldrums?

i. The European Union's expanded study abroad program, Erasmus, that sent hundreds of thousands of students and faculty to 4,000 institutions in 33 countries each year.

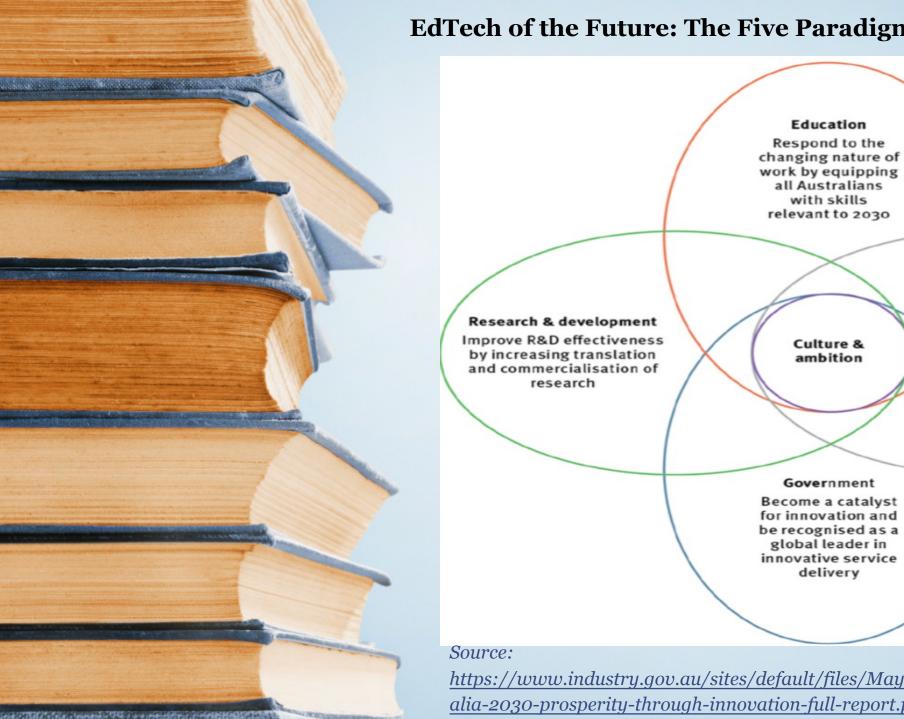
ii. The international branch campuses with investments in millions of dollars are that was already happening— Education City in Doha has six American universities.

iii New York University's new Abu Dhabi campus has students from 39 countries. There are 162 branch campuses of Western universities in Asia and the Middle East—a 43% increase in just three years.

iv Singapore had 100,000 international students as well as a campus of INSEAD, the global business school, and programs with at least four American universities.

v. China and India have pioneered the most dramatic Higher Education revolution in last 25 years that engineered economic miracles making waves in human history, as the number of degree earners quadrupled.

vi. In India, the numbers attending universities doubled in the 1990s, and the demand continues to surge. in order to raise the age participation rate from 30% as envisaged in its New Education Policy. India has become the largest source of international students surpassing China with 268,923 students studying in the US in 2022-23.



## **EdTech of the Future: The Five Paradigm Matrix**

#### Industry

Ensure Australia's ongoing prosperity by stimulating high-growth firms and improving productivity

https://www.industry.gov.au/sites/default/files/May%202018/document/pdf/austr alia-2030-prosperity-through-innovation-full-report.pdf



The Future World : Values driven concomitantly with individual skills and knowledge

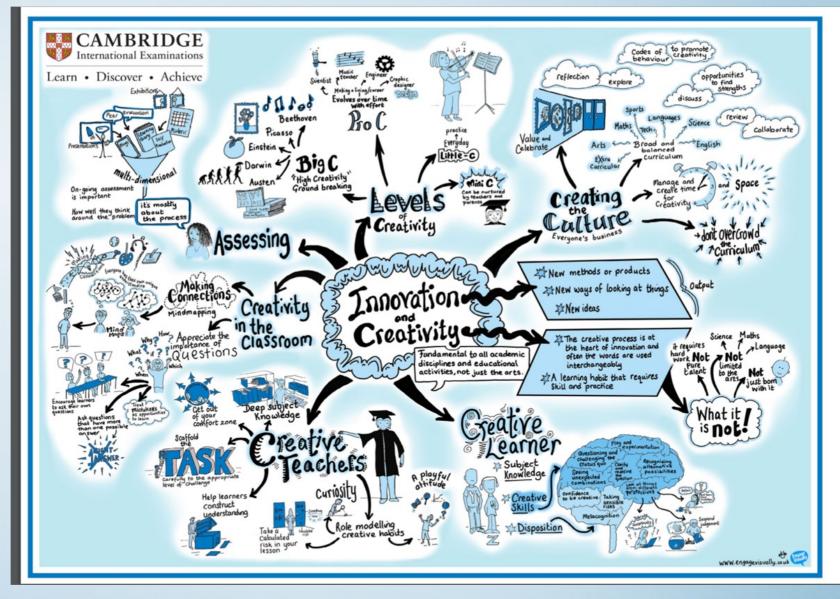
Let us examine – values, assumptions and perceptions instilled early in life – to dictate all aspects of an individual's behaviour and societal ethos though at times its influence is subtle, at others its impact is far reaching. Invariably, the schooling influences higher education and learning later in life contributing to the success of the individual and the society.

The principles of Blended Learning where good values across cultures will focus on students as learners, respect and adjust for diversity, provide context-specific information and support, facilitate meaningful intercultural dialogue and engagement, be adaptable, flexible and responsive to creativity and innovation, scientific evidence, prepare students for life in a globalised world.

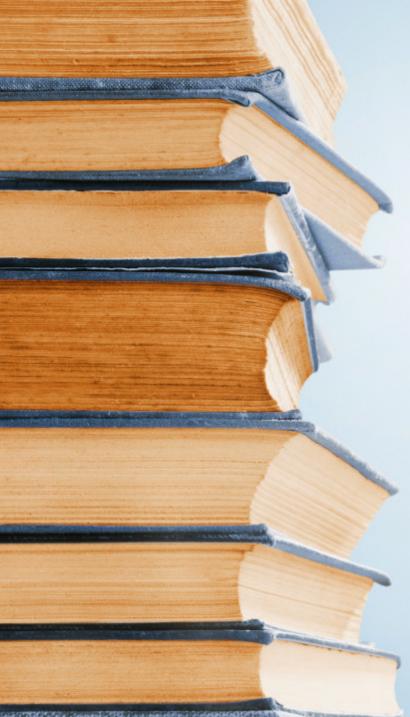
A value driven approach seeks to capture core ideas from the published research, be specific enough to guide teachers in their practice, be flexible enough to accommodate the variety of different learning and teaching contexts within which teachers and learners work, for example: offshore, onshore, online, in large and small groups.

The approach is consistent with Yorke (2012) who writes, '... teaching is not a simple matter that can be expressed in a set of rules applicable to all circumstances. Rather, it has to be approached in terms of a set of principles to be applied in a manner appropriate to circumstances'

## EdTech and Future of Change: What We Teach and What We Learn



Source: https://www.cambridgeinternational.org/Images/426483-chapter-4-innovation-and-creativity.pdf



## Universities Future, the Opportunities in the aftermath of Tsunami:

1. Embrace a future ready vision of student-led learning.

Universities play a critical role making a classroom future ready, where students should be involved in technology, decision-making and deployment.

2. Goals have to be aligned to leadership, management and resources.

Universities need a series of benchmarks for realizing the vision for our underserved student community such as personal computers and I Pads. By meeting the goals of Equity Access and Quality and now Sustainability, we need to equip our students with the devices needed to make their classrooms more technologically accessible and welcoming.

3. Assessing where we are now.

Assessing and measurement on specific benchmarks across all key areas, such as research and information fluency, communication and collaboration, critical thinking and problem solving, and creativity and innovation is the way forward to a future ready education. A Teaching Innovation Progression Chart designed to encourage 21st century learning and assess progress in meeting the goal of full integration of today's classrooms is critically important.

4. Identification of future-ready skills for our future ready workforce.

Our education needs to evolve, so as to prepare to the needs of our future workforce, and the skills needed to drive this continue to change through integration with national priorities.



5. Professional development plan for future-ready skills.

After integrating national priorities such as the skilling initiatives we have to get the leadership infrastructure in place as teaching and learning outcomes should map the end goal of life skills and student-led learning.

6. Ensure equitable access to technology and information.

Ensuring and providing students with equal access to information will not only shrink the digital divide but also support personalized learning and meeting online testing requirements through the opportunity to access online resources and cultivate the skills necessary to make learners successful in today's digital workforce.

7. Evaluation and measurement of student progress in future-ready skills. Evaluation and assessing of students' progress in mastering future-ready skills is a key component of building a successful future-ready initiative. A future ready education should be aimed at developing productive citizens who foster creativity, critical thinking and collaboration.

#### 8. Best Practices and International Collaboration.

Learning from best practices elsewhere and thinking globally but acting locally is the key to success. As the adage goes, *it takes a village to raise a child*. Thus, it takes the support of an entire society to build a successful future-ready initiative. SHAWCO, a non-profit organization is supporting communities in South Africa, that lacked computing facilities and technology needed. The organization rolled out a number of fully connected solar-powered learning labs to help students prepare for continued education, while providing dependable internet access in an area with an unpredictable power supply.



## 9. Plan collectively and strategically.

Thinking globally and acting locally implies ffuture-ready education, making content relevant to students' lives and creating opportunities for students to interact with each other, with teachers and with other knowledgeable adults in authentic learning experiences. Overcoming the misconception that future-ready initiatives are all about the technology is not true. It's important to visualise that the students and teachers are partners in education for future-ready education initiatives.

The Future Imperative Post Pandemic: Innovation, Entrepreneurship, Disruption and Human Values

The higher education landscape will change more than ever in the next few years than it has in the previous one hundred. Internet revolution and Technology has challenged traditional assumptions about learning, not only the proliferation of MOOCs and vocational training programs but also Virtual Reality and BYOD has led to new choices for aspiring students.

Educational disruption, innovation and emergence of entrepreneurial mindsets due to loss of traditional employment opportunities is now a global phenomenon, with vast numbers of students seeking to go abroad for further study. These shifts all point to one truth: rapid globalisation and enormous flood of knowledge across the world and an increasing number of choices about what, how, and where to study.



## **EdTech and the Future: Creative Learning**

Creative learning activities, like any other, need to respect Vygotsky's zone of proximal development with appropriate scaffolding provided by the teacher.

## Revised Bloom's Taxonomy: 2001 Create Higher Order Thinking **Evaluate** Skills Analyse **Apply Understand** Lower Order Thinking Remember Skills

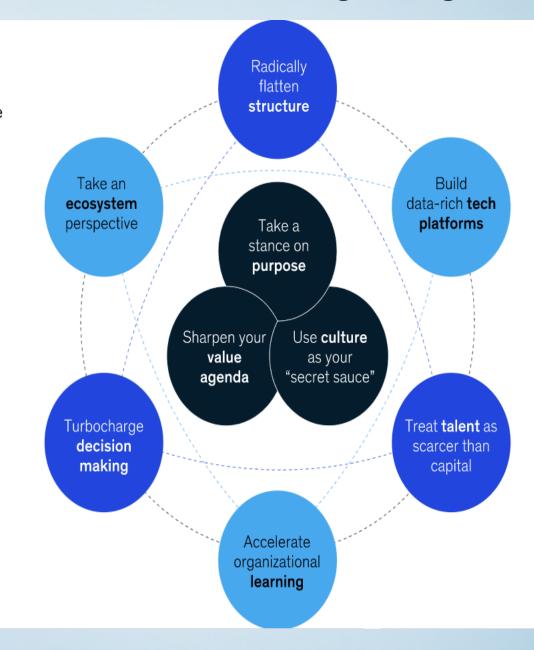
Figure 4: A revised version of Bloom's taxonomy

Source:

https://www.cambridgeinternational.org/Images/426483-chapter-4-innovation-and-creativity.pdf

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## **EdTech and the Future: Making a Change**



Source: <a href="https://www.mckinsey.com/~/media/mckinsey/business%20functions/people">https://www.mckinsey.com/~/media/mckinsey/business%20functions/people</a>



To Conclude and in this backdrop of revolutionary change that we have to transform, transfer and be together based on seven future prepositions:

1. Disruption does present tremendous opportunity for the Universities of the future provided they are adaptable and versatile in equal measure;

2. The conventional, closed and proprietary model of knowledge dissemination is being replaced, by an open modular approach making knowledge dissemination outsourced and easily accessible;

3. Human values that have steered the ascent of our civilisation through centuries are now challenged as never before for a cross-cultural tsunami and it is the Universities of the future that may be the last defence for a declining value based education;

4. As global standards of living rise and education is democratised and mass enabled there will be a universalisation of higher education that may move away from a degree based to a skill based and creativity and innovation led world.

5. Disruption is going to be bottom up, as high-end traditional classes will in long run, be unable to compete with cutting edge, specialised and economic online courses.

6. Globalisation and digital revolution will leverage learning flexibility being blended and lifelong learning and up skilling options that will raise tuition costs.

7, There will be renewed focus on data driven open AI based analytics to optimize resources, catalysed by integration of emerging technologies, diversity, equity and inclusion will imply more emphasis on certificates, badges and micro credentials.



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- vi <u>www.prsindia.org/downloads/bills-pending-inparliament/</u>



# THANKS





