Salam Sejahtera

السلام عليكم ورحمة الله وبركاته

SELAMAT BULAN AKADEMIA

Innovation is the act or process of introducing new ideas, devices, methods, products or services, that add values to your organisation, or other relevant parties.

Innovation is the implementation of something new (Paul Sloane**)**
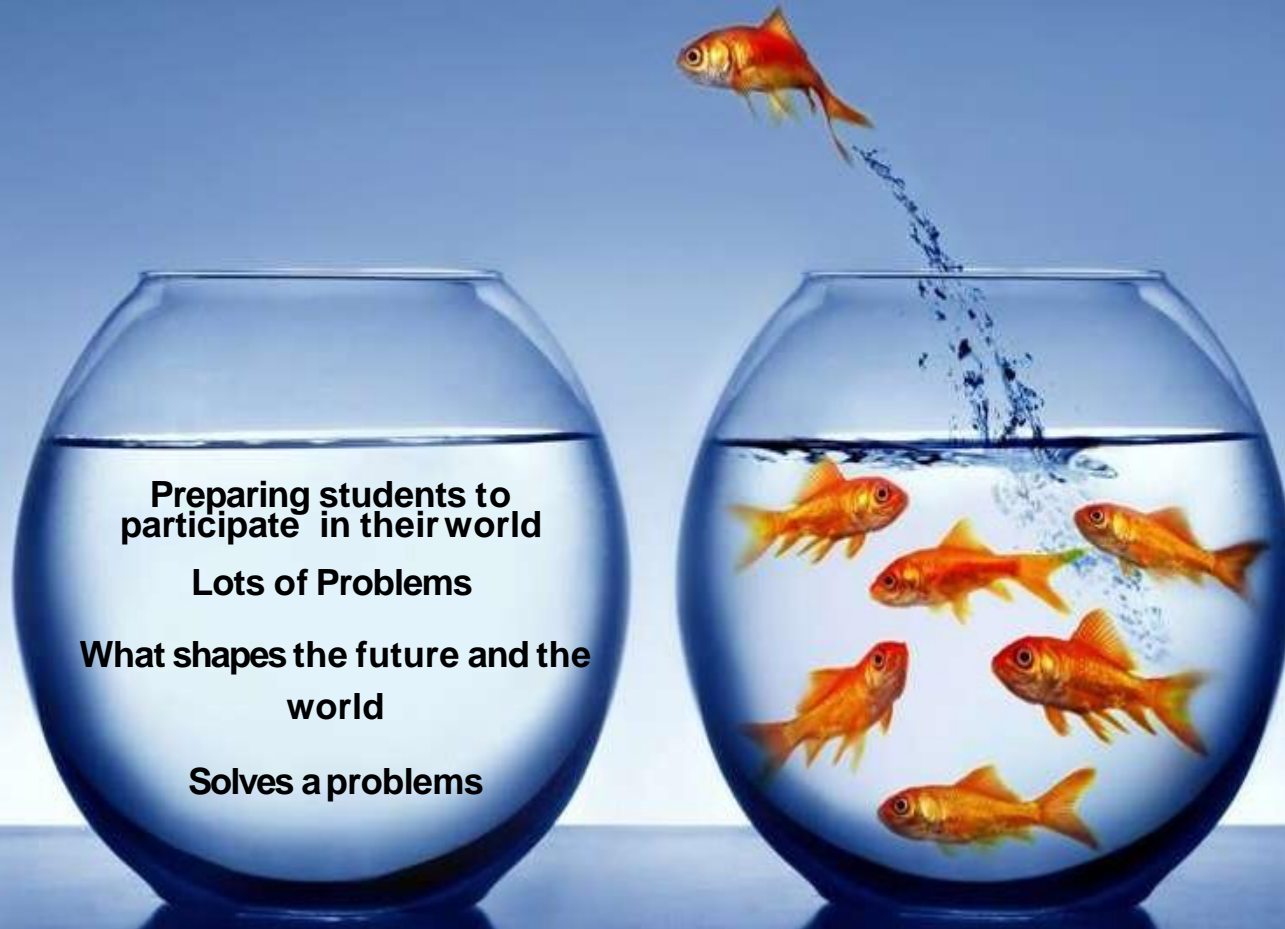
Learning and innovation go hand in hand.

The arrogance of success is to think that what you did yesterday will be sufficient for tomorrow.

-William Pollard
English clergyman 1828-1893

Tendencies and Problems

- **Rapidly evolving world**
  - **technology**
  - **students**
  - **unknown future**
- **Globalization**
- **Financial limitations**
- **Teachers**
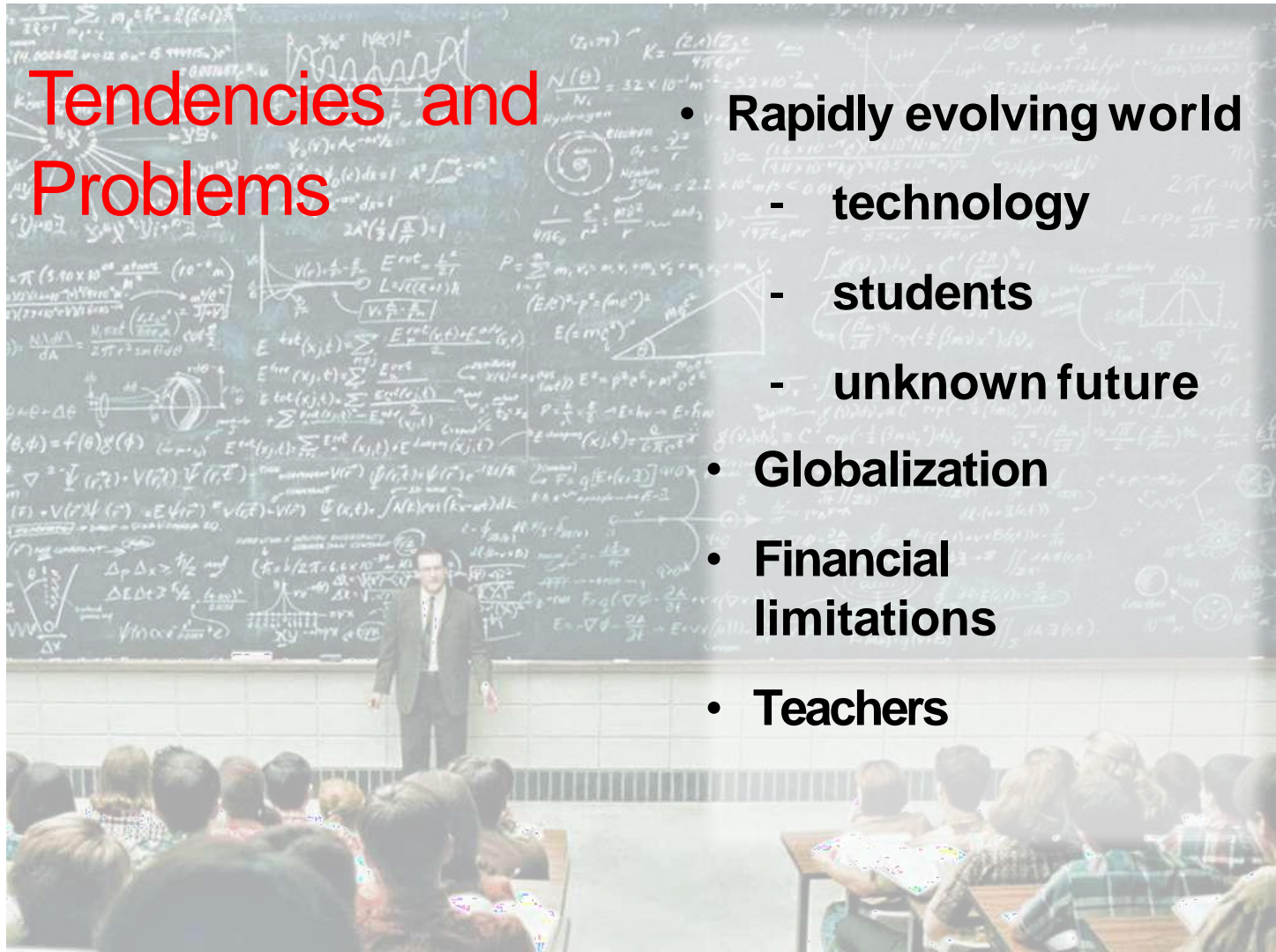
Future education........

what do we know?........

Do we really know?

(uncertainties, unknown, unpredictable, complex, volatile ......)

Challenges of Current Scenario:

1. For Students
2. For Lecturers
3. For the Universities

eg……@ Students are not on campus
How does that affect future education?

TALENT OF THE FUTURE

"Today's educators are preparing students for **jobs that don't yet exist** using **technologies not yet invented** to solve **problems not yet identified**."
— Rick Stephens, Senior Vice President, HR, Boeing 2008

Criteria of talents in the future
(learn, unlearn, re-learn, co-learn and co-create)
From **jobs** to **roles**
Job seekers to **Job creators**

2025: A Look Into the Future of Higher Education
(Wiley Education Services, 2019)

FACULTY

NEW TEACHING MODEL
Team teaching, co-teaching, and teaching-only positions will be common

TECHNOLOGY SAVVY
They'll need to stay abreast and be comfortable with new instructional technologies and changes

MORE EFFICIENT GRADING
Better rubrics and automation will enable them to provide higher-quality feedback.

A MULTIDISCIPLINARY APPROACH
They'll straddle several disciplines to support applied learning and more adjuncts moving between fields.

STUDENT

A DEMAND FOR ENGAGING EXPERIENCES
Expectation that learning will be entertaining, immersive, purpose-driven, and experiential.

TANGIBLE RESULTS
Increased focus on concrete skills that enable them to graduate with a job and facilitate career mobility.

A CONSUMER MINDSET
They'll expect institutions to function like businesses, demanding convenience personalization and professional skills.

CHALLENGES IN THE CLASSROOM
They'll continue to need help with writing, critical thinking and professional skills

What are the 10 Shifts needed to transform the system?

FRAMEWORK OF
SHARED PROSPERITY VISION
2030

SOCIAL CAPITAL

BUSINESS & INDUSTRY ECOSYSTEM

KEY ECONOMIC GROWTH ACTIVITIES (KEGA)

REGIONAL INCLUSION

United, Prosperous & Dignified Nation

Development for All

SHARED PROSPERITY VISION 2030

Addressing Wealth & Income Disparities

HUMAN CAPITAL

SOCIAL WELLBEING

LABOUR MARKET & COMPENSATION OF EMPLOYEES

OBJECTIVE

GUIDING PRINCIPLES

STRATEGIC THRUSTS
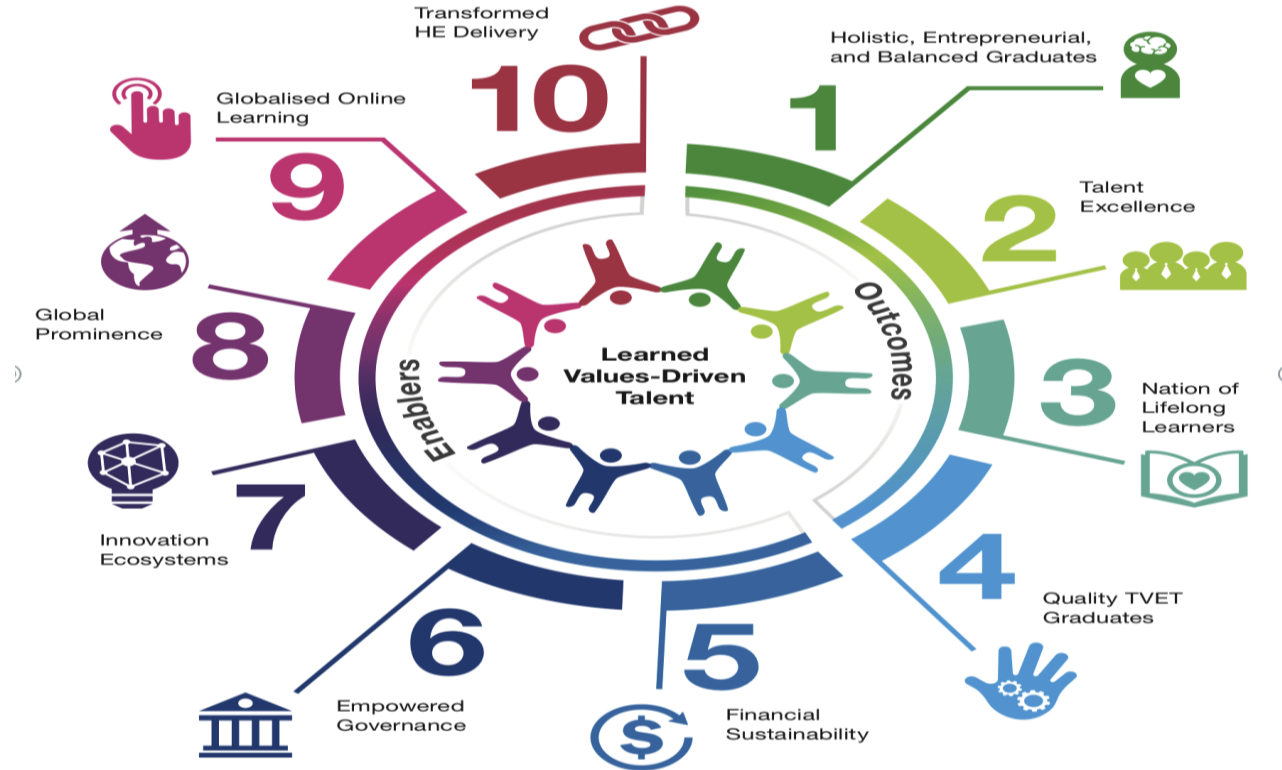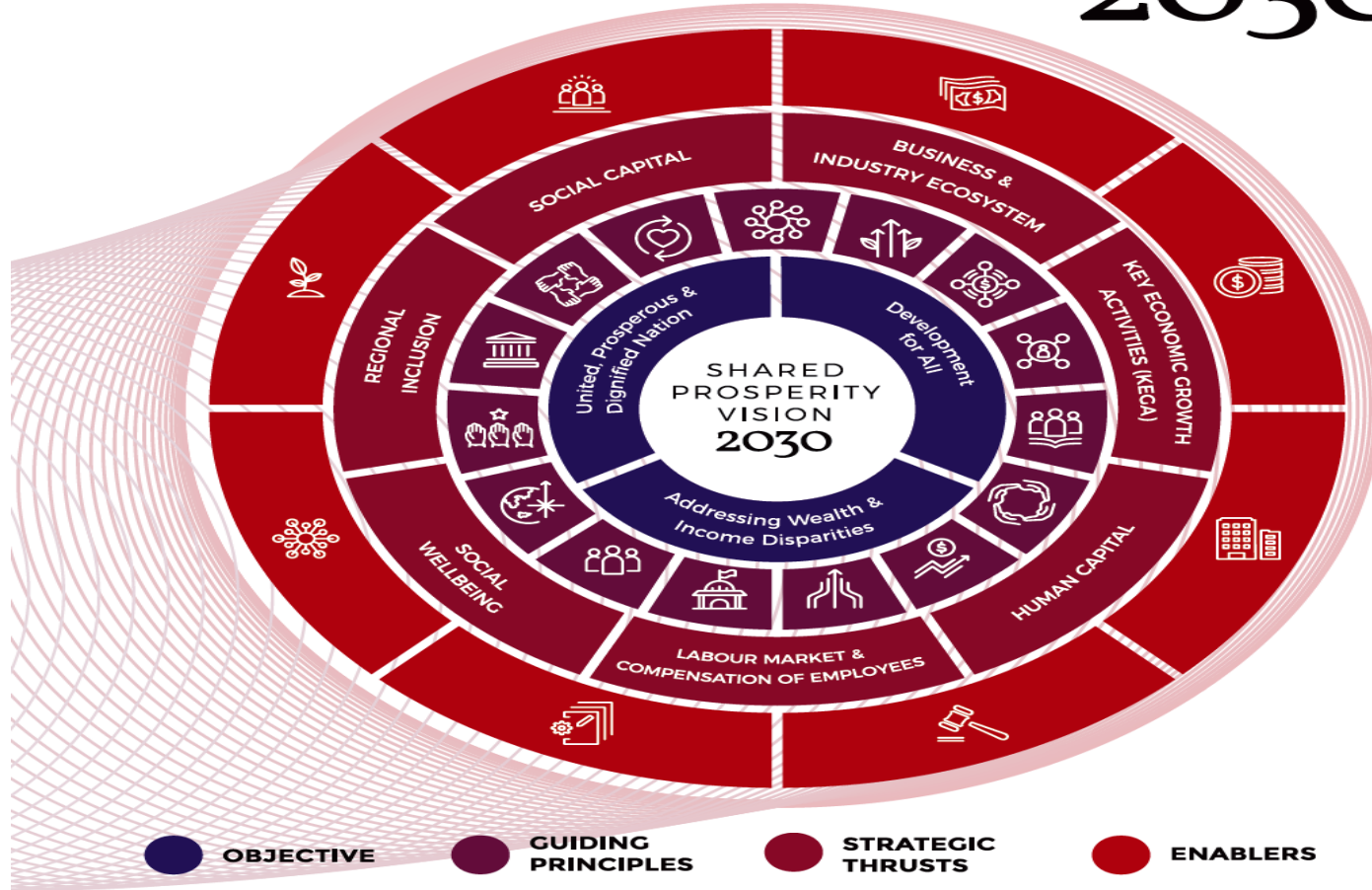
ENABLERS

EIGHT SHARED PROSPERITY VISION ENABLERS

Capabilities, resources and catalysts contributing to success of Shared Prosperity Vision

Financial Capital
Expansion of businesses through holistic and SME-friendly financing

Effective Institutional Delivery
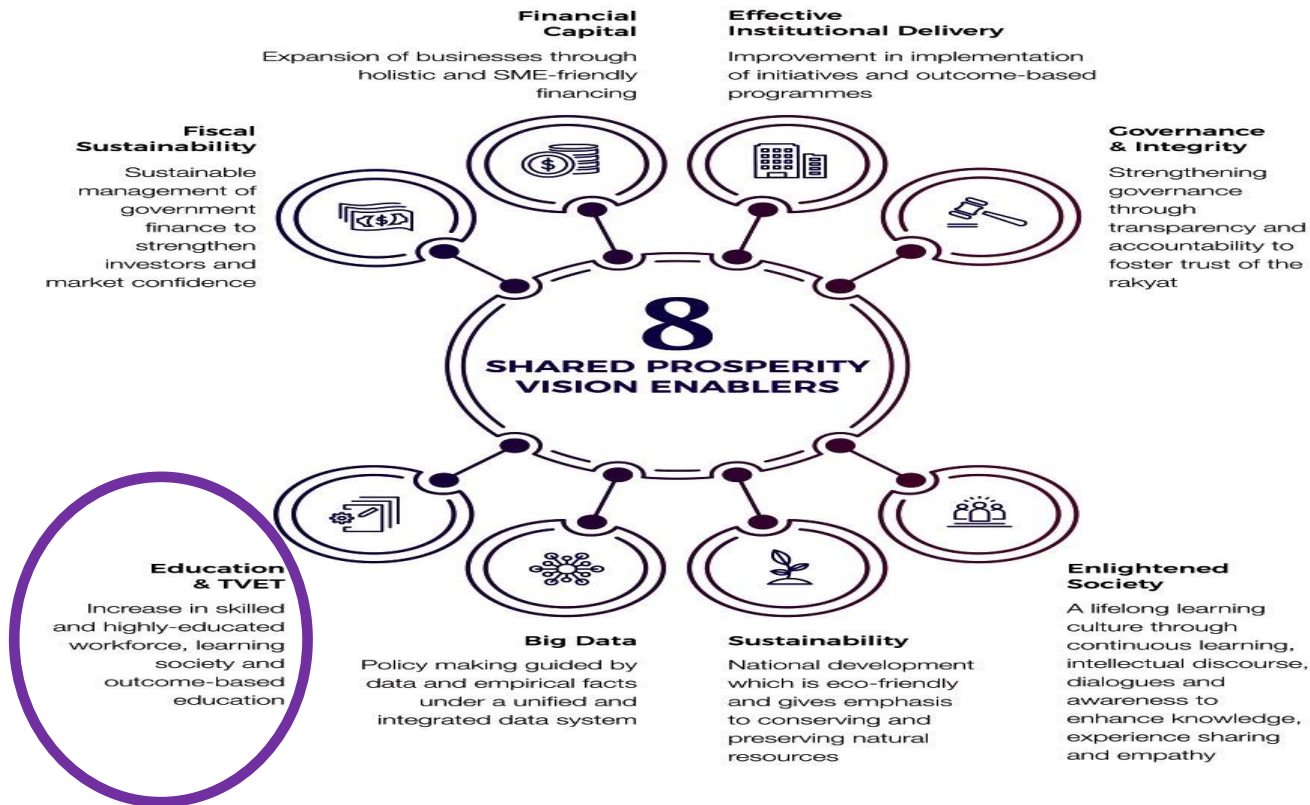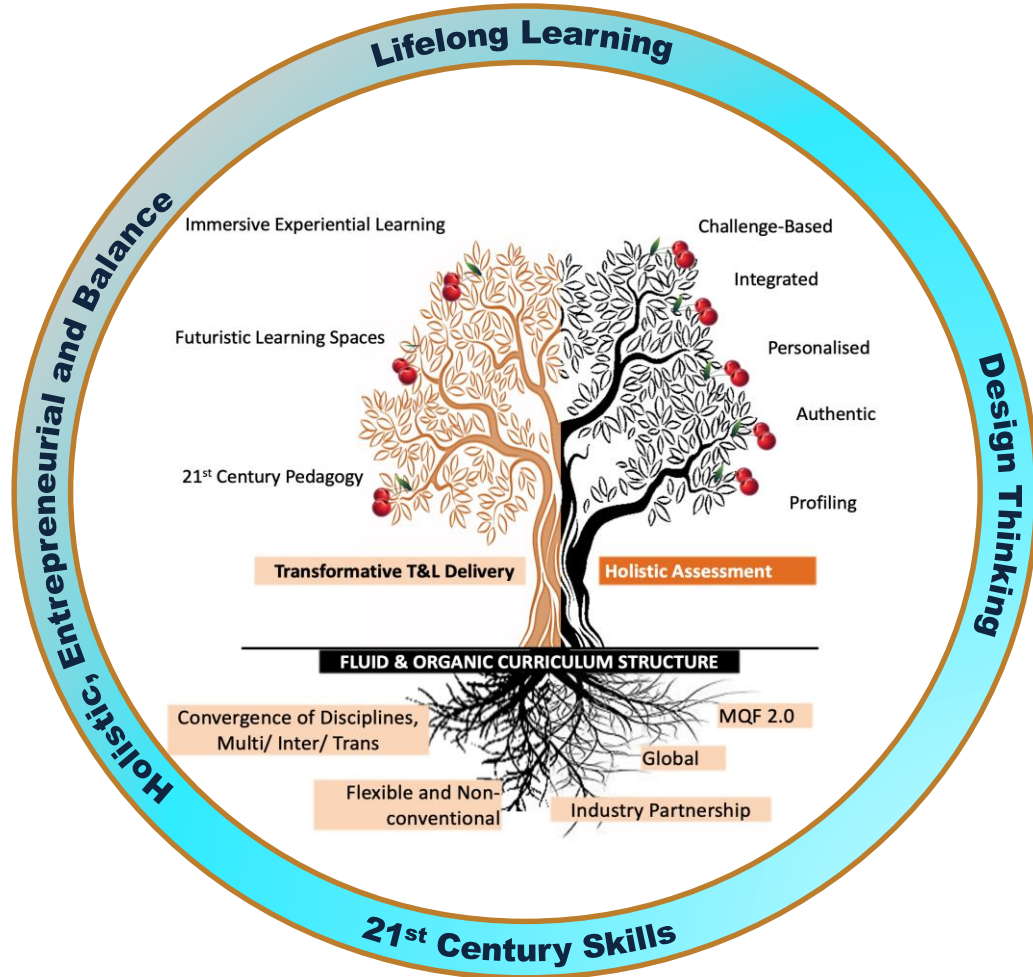Improvement in implementation of initiatives and outcome-based programmes

Fiscal Sustainability
Sustainable management of government finance to strengthen investors and market confidence

Governance & Integrity
Strengthening governance through transparency and accountability to foster trust of the rakyat

8 SHARED PROSPERITY VISION ENABLERS

Education & TVET
Increase in skilled and highly-educated workforce, learning society and outcome-based education

Big Data
Policy making guided by data and empirical facts under a unified and integrated data system

Sustainability
National development which is eco-friendly and gives emphasis to conserving and preserving natural resources

Enlightened Society
A lifelong learning culture through continuous learning, intellectual discourse, dialogues and awareness to enhance knowledge, experience sharing and empathy

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

FUTURE READY CURRICULUM FRAMEWORK - REVISED

Lifelong Learning

Holistic, Entrepreneurial and Balance

Design Thinking

21st Century Skills

Immersive Experiential Learning

Challenge-Based

Integrated

Futuristic Learning Spaces

Personalised

Authentic

21st Century Pedagogy

Profiling

Transformative T&L Delivery

Holistic Assessment

FLUID & ORGANIC CURRICULUM STRUCTURE

Convergence of Disciplines, Multi/ Inter/ Trans

MQF 2.0

Global

Flexible and Non-conventional

Industry Partnership

FUTURE READY CURRICULA MUST FOCUS ON…

LITERACIES TOWARDS MAKING INTER-DISCIPLINARY CONNECTIONS

- Linguistics
- Mathematical
- Technological

ESSENTIAL EMPLOYABILITY SKILLS

- Problem-solving
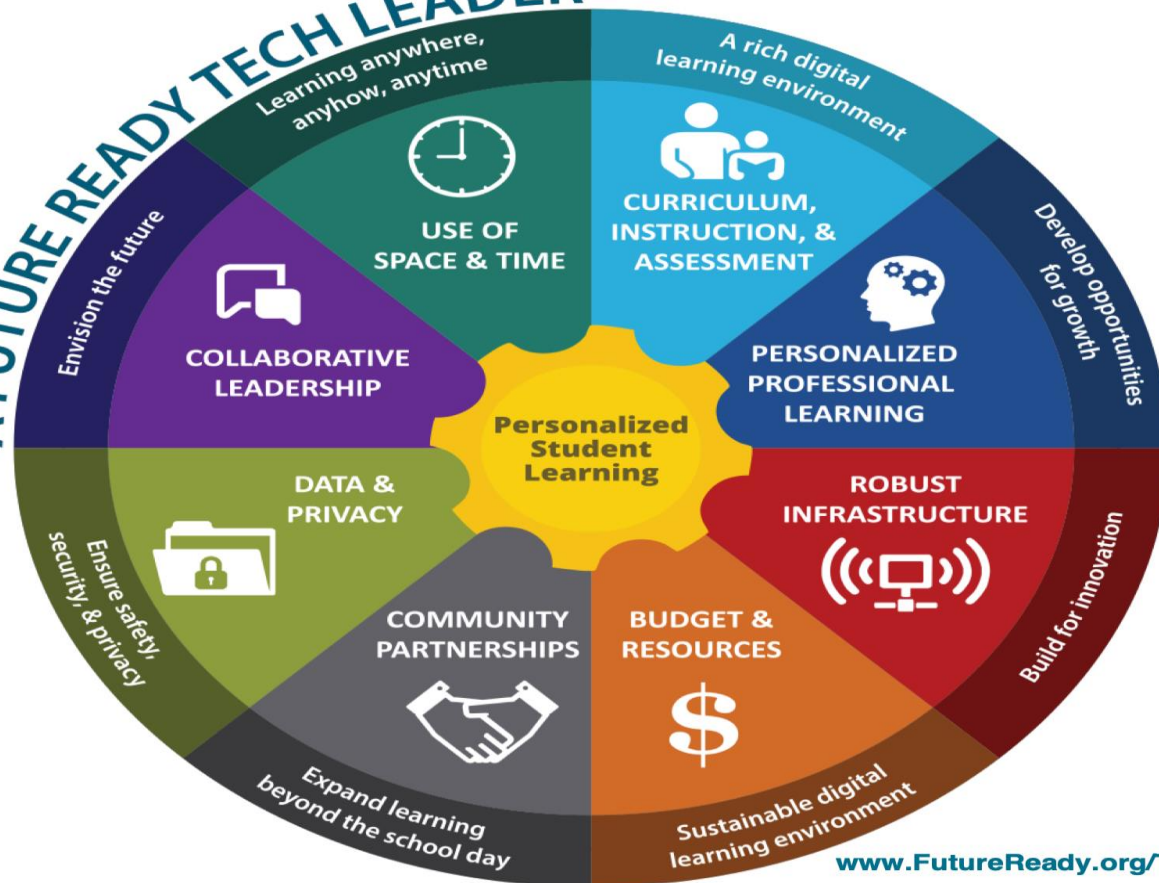- Critical thinking
- Project management
- Creativity

GLOBAL CITIZENSHIP VALUES

- Empathy
- Character

Future-Proof Skills Sets

A FUTURE READY TECH LEADER

Learning anywhere, anyhow, anytime

A rich digital learning environment

Envision the future

USE OF SPACE & TIME

CURRICULUM, INSTRUCTION, & ASSESSMENT

COLLABORATIVE LEADERSHIP

PERSONALIZED PROFESSIONAL LEARNING

Develop opportunities for growth

Personalized Student Learning

DATA & PRIVACY

ROBUST INFRASTRUCTURE

Ensure safety, security, & privacy

COMMUNITY PARTNERSHIPS

BUDGET & RESOURCES

Build for innovation

Expand learning beyond the school day

Sustainable digital learning environment

www.FutureReady.org/TechLeaders

Current situation has pushed us to:

1. **scale up remote work**

2. **accelerate digitalisation**

3. **Accelerate automation. And ……. many others…..**

   (Ratcheva V.S and Hingel G, 2020)

*Reskilling Revolution

*Reimagine and Redesign Online Learning Experience

Among the major innovations in Education:

1. **Digital Textbooks**

2. **Gamifications**

3. **Remote Learning**

4. **Artificial Intelligence**

5. **Virtual Reality**

6. **Learning through Smart Board**

7. **Cloud based technology in Education**

8. **MOOCS (Massive Open Online Course)**

9. **Use of videos**

10. **The M-learning ………..**

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Today and Future…..

V U C A

Volatile

[easily changing; unpredicted; unexpected change; unstable]

Uncertain

[not definite; undecided; not sure; changeable]

Complex

[not a single but many parts/ aspects are interconnected]

Ambiguous

[not clear; vague]

VUCA – military term to describe unstable situation after Cold War.

How can we prepare students for jobs that have not yet been created, to tackle societal challenges that we can't yet imagine, and to use technologies not yet invented, to solve problems not yet identified ?

How can we equip them to thrive in an interconnected world where they need to understand and appreciate different perspectives and world-views, interact respectfully with others, and take responsible action towards sustainability and collective well-being?

OECD.org

OECD

© Organisation for Economic Co-operation and Development

OECD Future of Education and Skills 2030 project

Phase I of the project focuses on **curriculum redesign** and developing a conceptual **framework for learning 2030**. Phase II focuses on **curriculum implementation** and creating a conceptual **framework for teaching 2030**.

Andreas Schleicher, Director of the OECD Directorate for Education and Skills, commented in 2019:

"Education is no longer about teaching students something alone; it is more important to be **teaching them to develop a reliable compass and the navigation tools to find their own way** in a world that is **increasingly complex, volatile and uncertain**.

Our imagination, awareness, knowledge, skills and, most important, our common values, intellectual and moral maturity, and sense of responsibility is what will guide us for the world to become a better place" (Schleicher, 2019[2]).

" **Our** challenge **today** is to **bridge the divides** highlighted and amplified by **the crisis.**

Audrey Azoulay
UNESCO Director-General

https://twitter.com/unesco/status/1278768623620931588

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The aim of OECD's Education 2030: The Future of Education and Skills project is to support countries to find answers to two far-reaching questions: "What knowledge, skills, attitudes and values will today's students need to shape and thrive their world in 2030?" and "How can instructional systems develop these knowledge, skills, attitudes and values effectively?"

Table 2. The "new normal" in education

Features	Traditional education system	An education system embodying the "new normal"
Education system	Education system is **an independent entity**	Education system is **part of a larger eco-system**
Responsibility and stakeholders engagement	**Decisions made based on a selected group of people** and thus they become held accountable and responsible for the decisions made	**Decision-making and responsibilities shared among stakeholders**, including parents, employers, communities, and students
	Division of labour (Principals manage schools, teachers teach, students listen to teachers and learn)	**Shared responsibility** (everyone works together and assumes responsibility for a student's education and students also learn to be responsible for their own learning)
Approach to effectiveness and to quality of school experience	**Outcomes most valued** (student performance, student achievements are valued as indicators to evaluate systems for accountability and for system improvement) **Focus on academic performance**	**Valuing not only "outcomes" but also "process"** (in addition to student performance and student achievements, students' learning experiences are in and of itself recognised as having intrinsic value) **Focus on not only academic performance but also on holistic student well-being**
Approach to curriculum design and learning progression	**Linear and standardized progression** (the curriculum is developed based on a standardised, linear learning-progression model)	**Non-linear progression** (recognising that each student has his/her own learning path and is equipped with different prior knowledge, skills and attitudes when he/she starts school)
Focus of monitoring	**Valuing accountability and compliance**	**System accountability as well as system improvements** (e.g. continuous improvement through frequent feedback at all levels)
Student assessment	**Standardised testing**	**Different types of assessments used for different purposes**
Role of students	Learning by listening to directions of teachers with emerging student autonomy	Active participant with both **student agency and co-agency** in particular with teacher agency

http://www.oecd.org/education/2030-project/teaching-and-learning/learning/learning-compass-2030/OECD_Learning_Compass_2030_Concept_Note_Series.pdf

Table 1. Comparison of society, industry and education across the 19th and 20th centuries, and the aspirational vision for the 21st century[2]

	19th century	20th century	Vision for the 21st century
World events	Civil wars, racial segregation, colonialism and imperialism	World Wars I and II, independence of nation states, Cold War	Interdependence among national states, decentralisation of power, terrorist attacks, nationalism
Technological innovations	Electricity, telephone	Internet	Cyber physical technology (social media, AI, 3-D printing, robotics)
Main industry types and business climates	Oil industry, textile industry Mass production by machine Focus on profit making	Computers, electronics, financing Shift from manual to machines – automation Tailored production of goods and services for individual consumers Corporate social responsibility (CSR)	Social media, Internet of things, big data, digitalisation, post-truth (fake news) Shared economy, social entrepreneurship Consumers take part in the production of goods and services Focus on value making, sense making Corporate shift to creating shared value (CSV) and considering to contribute towards the UN Sustainable Development Goals (SDGs)
Environmental stewardship	Humans conquer nature Humans own nature (in particular, land) besides labour, capital as key factors of production	Humans begin to realize the need to protect nature (environmental conservation/ protection) Focusing on human capital	Humans co-exist with nature; humans are part the mother nature Focus on sustainable development Support green growth Nature is considered as one of the important capitals – natural capital, human capital, cultural capital and social capital.
Changes in society/life	Improved standards of living and average income	Globalisation, baby boom, increased access to information	Accelerated migration, urbanisation, longer life expectancy, falling fertility rate, growing inequality depletion of natural resources, climate change
Work organisation	Division of labour – e.g. assembly in factories – assembly lines Hierarchical organisation	Transparency in organisation Organisation with delegation of responsibility and accountability	Transparency in organisation Organisation with delegation of responsibility and accountability as well as shared responsibility Flat organisation - Flat, open, flexible, transparent, and team-work oriented organisation
Work organisation in education and changes in compulsory schooling	Universal public schooling (primary and secondary education)	Emerging divergence of schooling (e.g. private, home schooling), Competition among schools	Emerging networks/partnerships of schools Emerging collaboration among schools Emerging collaboration between schools and communities at all levels, meta-, meso-, micro, capturing education system as part of a larger eco-system
Curriculum	Prepare for labour market; education for jobs Academic disciplines only (mathematics, language) Static, linear and standardised	Prepare for independence; education for individual fulfilment Widened scope (added physical education, other domains); Still static, linear and standardised	Preparing for interdependence; education for citizenship Balanced scope (breadth and depth) Non-linear, dynamic, flexible curricula; focus on more personalised learning

Two far reaching questions to consider:

1. What knowledge, skills, attitudes and values will today's students need to shape and thrive their world in the future?

2. How can instructional systems develop these knowledge, skills, attitudes and values effectively?

Talents for the future, must be able to learn, unlearn, re-learn, co-learn and co-create.

*From Jobs to Roles

*From Job Seekers to Job Creators

Futures of Education

LEARNING TO BECOME

A global initiative to reimagine how knowledge and learning can shape the future of humanity and the planet.

Thinking together so we can act together to make the futures we want.

About the initiative

https://en.unesco.org/futuresofeducation/initiative

UNESCO's Futures of Education initiative aims to rethink education and shape the future. The initiative is catalyzing a global debate on how knowledge, education and learning need to be reimagined in a world of increasing complexity, uncertainty, and precarity.

Rethinking Education
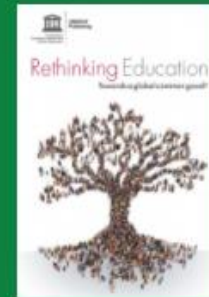
Rethinking education: towards a global common good?

UNESCO

2015

Skills are a prerequisite for exercising a competency.

A **competency** is a holistic concept that includes knowledge, skills, attitudes and values.

Competency and knowledge are neither competing nor mutually exclusive concepts.

To be **ready and competent for 2030**, **students need to be able to use their knowledge, skills, attitudes and values** to **act in coherent and responsible ways** that change the future for the better.

Competency implies more than just the acquisition of knowledge and skills; it involves the mobilisation of knowledge, skills, attitudes and values **to meet complex demands in situations of uncertainty.**

Competency = Mobilisation (Knowledge + Skills + Attitudes + Values)

Three literacies are included in the humanics curriculum: Technological, Data, and Human literacy.

Human Literacy — The *most* important literacy among the three. Human literacy prepares us for social milieu, facilitates engagement with others, and enhances human capacity for love and grace. In the global community, we need to interact with people who have different backgrounds and perspectives. Therefore, embracing diversity at schools and workplaces is essential for us to build human literacy.

Source: Asmussen, K. (2017[5]), Language, wellbeing and social mobility, www.eif.org.uk/blog/language-wellbeing-and-social-mobility.

Figure 2. The OECD framework for measuring well-being and progress
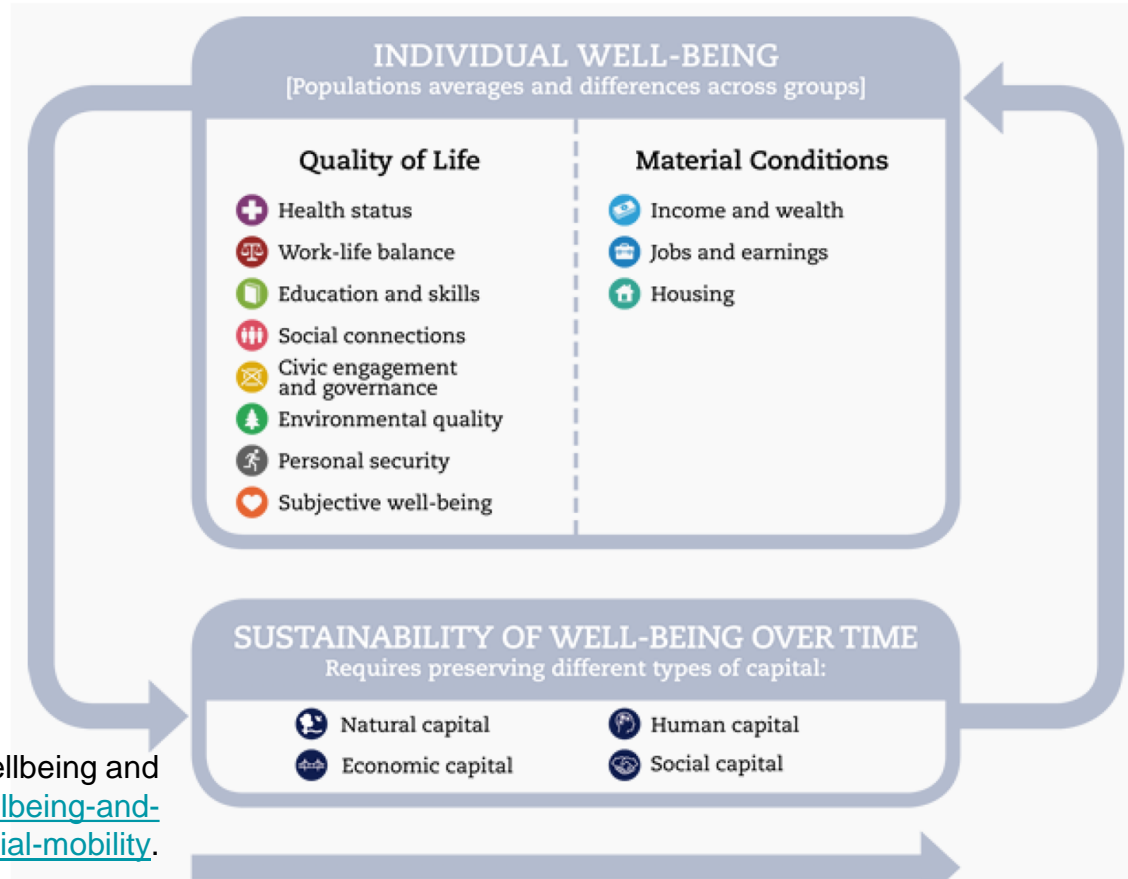
Sustainable Development Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning

Embracing a culture of lifelong learning

Contribution to the Futures of Education initiative

A new vision for lifelong learning and a world worth living in

September 8, 2020

1. Recognize the holistic character of lifelong learning
2. Promote transdisciplinary research and intersectoral collaboration for lifelong learning
3. Place vulnerable groups at the core of the lifelong learning agenda
4. Establish lifelong learning as a common good
5. Ensure greater and equitable access to learning technology
6. Transform schools and universities into lifelong learning institutions
7. Recognize and promote the collective dimension of learning
8. Encourage and support local lifelong learning initiatives, including learning cities
9. Reengineer and revitalize workplace learning
10. Recognize lifelong learning as a human right

https://en.unesco.org/futuresofeducation/news/new-vision-lifelong-learning-and-world-worth-living

The Fourth Industrial Revolution

Klaus Schwab

WORLD ECONOMIC FORUM

COMMITTED TO IMPROVING THE STATE OF THE WORLD

White Paper
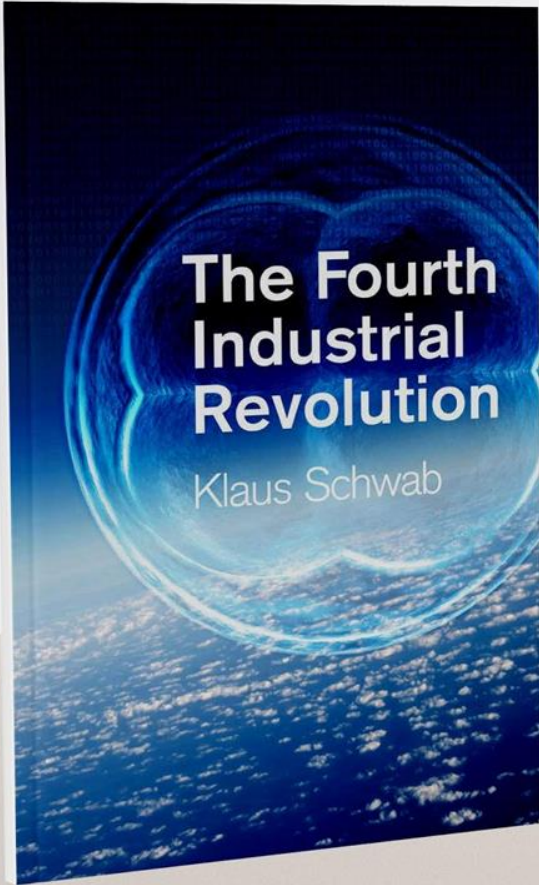
Realizing Human Potential in the Fourth Industrial Revolution
An Agenda for Leaders to Shape the Future of Education, Gender and Work

January 2017

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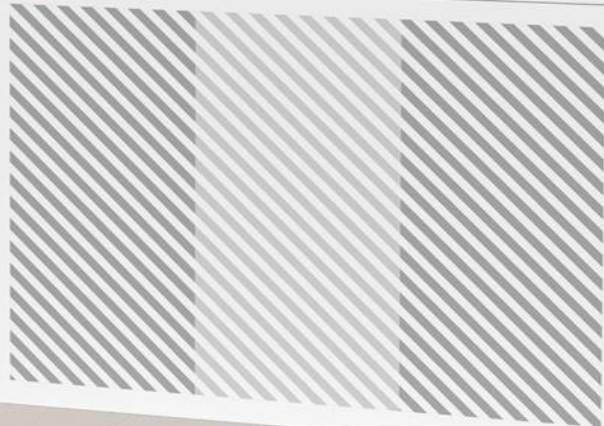
has opened up new opportunities, but has also revealed the importance of aligning company practices, public policy and education and training systems with the skills needs of today, underscoring the need to outline a basic common agenda linking governments, businesses and the education sector. And while education systems are highly context-specific, consensus is emerging on key principles and core

development and its exceptionally high future "return on investment" (ROI), requiring inter-ministerial coordination.[3]

'Future-ready' curricula

At the heart of any 'future-ready' education ecosystem are curricula designed to impart the knowledge and skills that have

purchase in the modern workplace. Given the rapid evolution of the job market, most individuals relying on just one skill set or narrow expertise are unlikely to sustain long-term careers in economies of the future. These modern curricula may be best delivered through public institutions, a well-regulated and thoughtfully incentivized private sector, or a combination of the two. There are two key components to getting this right: first, what to teach; and, second, how to teach it. While acknowledging the wide range of pedagogical approaches around the world, there is a growing consensus that forward-looking curricula must focus on: the linguistic, mathematical and technological literacies all job roles will require in the future; ensuring the breadth and depth of subject knowledge and the ability to make inter-disciplinary connections; developing global citizenship values, including empathy and character; non-cognitive employability skills such as problem solving, critical thinking, project management and creativity. Regarding the second point, although education systems vary widely (public v. private, centralized v. decentralized), there is consensus that curricula must be: 1) updated and adapted on a rolling basis, based on insights and forecasting regarding the evolution of local and global labour markets and trends in skill demands; 2) developed and revised collaboratively, with input from all relevant stakeholders, including businesses; and 3) subject to regular review, in order to avoid the disruption and implementation time-lag associated with major but infrequent curricular overhauls. It is also important to teach "how to learn" through experience-led approaches just as much as instruction-led ones, and by empowering students to be lifelong learners who take ownership of their upskilling throughout their lifetime.

Early exposure to the workplace and ongoing career guidance

Broad, balanced curricula should also feature exposure to the workplace, with an eye toward professionalizing the future workforce. Internships, mentoring, access to employer networks and site visits, for example, can all contribute to the work-readiness of young people, helping them envision a variety of career paths and equipping them with the relevant competencies. Exposure to employment opportunities can also reveal the returns on education investment. For example, research has found that, in low-resource settings, even the mere visibility of work opportunities can bolster the case for education, especially for girls' schooling, since knowing about the required education and basic skills has incentivized parents to keep their daughters in school for longer.[5] Career counselling and workplace exposure can also facilitate school-to-work transitions and help create a more level playing field by orienting individuals towards occupations or opportunities outside of their normal frame of reference and debunking gender and other stereotypes.[6] This guidance should ensure that people gain accurate and up-to-date information about their options based on available labour market data, individuals' interest and aptitude, and, where appropriate, input from local, regional and national employers. In addition, career guidance should no longer encourage a learner to choose a "job for life", but rather should focus on equipping individuals with the skills to navigate a changing world of work.

Digital fluency

Technology is rapidly altering the ways we interact and

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ADVANCEMENTS OF EDUCATION

Advancing Cultures of Innovation

Rethinking the Educators Roles

Redesigning Learning Spaces

Improving Digital

Deeper learning approaches

Literacy

Authentic Learning Opportunities

Analytics Technology

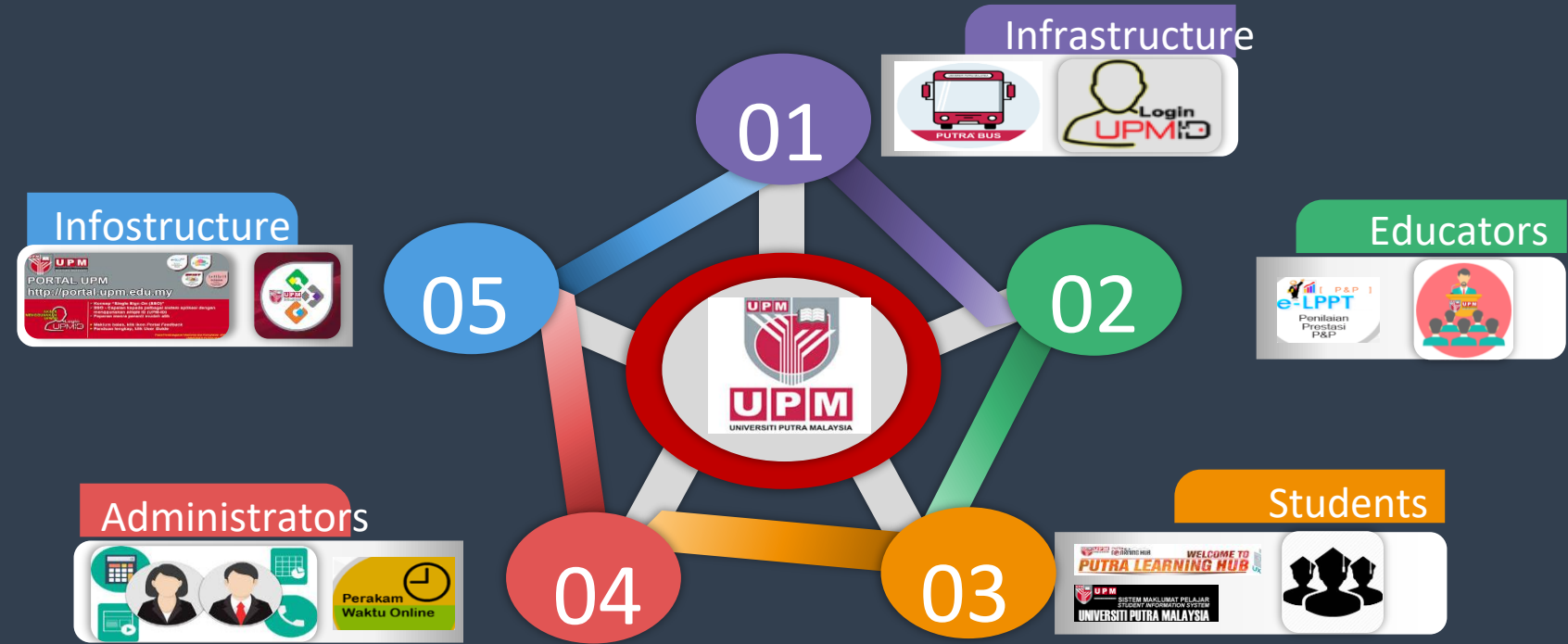**Mixed Reality**
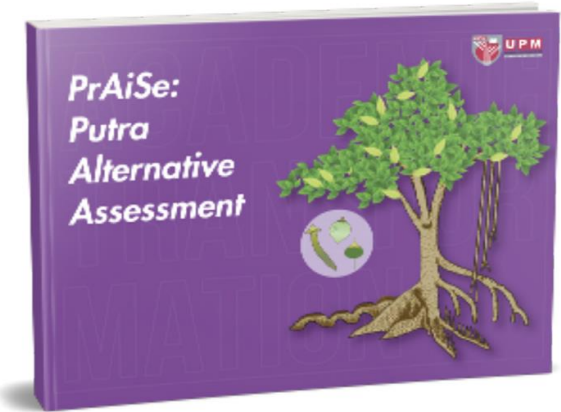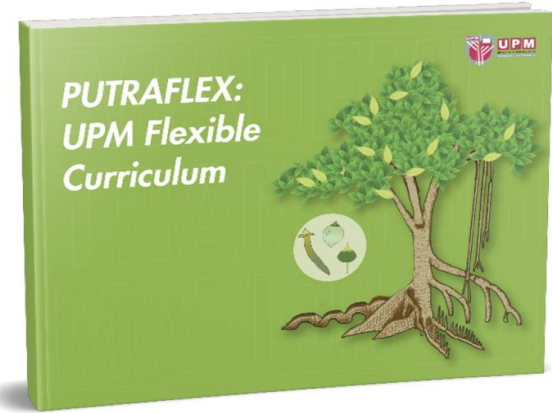
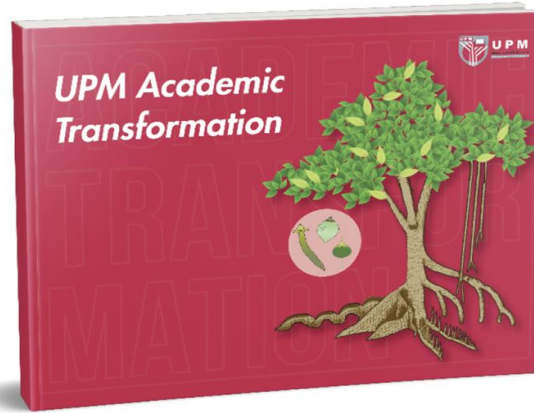**Robotic**

Ref: NMC Horizon Report 2017,2018

2018 2019 2020 2021 2022

UPM Initiatives for Future Education

UPM Academic Transformation

PUTRAFLEX: UPM Flexible Curriculum

PrIDe: Putra InnoCreative Delivery

PrAiSe: Putra Alternative Assessment

Philosophy

UPM Academic Transformation is an effort towards developing Future-Proof PUTRA Graduates through a flexible curriculum that is organic and fluid in nature supported by innovative teaching and learning delivery to generate impactful learning experiences and alternative assessment to cater diverse learning abilities.

Philosophy of
Alternative Assessment in
UPM

A variety of assessment measures challenge learners to understand themselves better and empower them to have better control over their learning. Such measures also inform educators towards meaningful instructional methods and provide opportunities to assess learners with diverse learning abilities in a holistic manner. This ultimately leads to future proof graduates.

PUTRAFLEX: PHILOSOPHY

PUTRAFLEX is an effort to produce Future-Proof PUTRA Graduates through the development of a flexible curriculum which is organic and fluid in nature, i.e., which allows for disciplines convergence and diverse study paths.

PHILOSOPHY

"InnoCreative teaching and learning delivery is a continuous effort towards producing future-proof graduates through impactful learning experiences designed to meet the expected learning outcome and personalized to the learner needs".

WHAT IS PUTRAFLEX?

PUTRAFLEX is the brand name of the flexible curriculum formulated and structured for Universiti Putra Malaysia. The name is a portmanteau, coined from a combination of the words "Putra" and "flex". "Putra" is taken from UPM, and is often used in initiatives involving UPM students, whereas "flex" is an abbreviation of the word "flexible", thus reflecting the nature of the curriculum itself. PUTRAFLEX is structured with an underpinning philosophy of producing Future-Proof PUTRA Graduates through a curriculum that is flexible in nature, promotes the convergence of disciplines, and offers diverse study paths. Accordingly, PUTRAFLEX contains the concepts and guidelines for its implementation at UPM.

PUTRA
FLEX

Flexible Curriculum
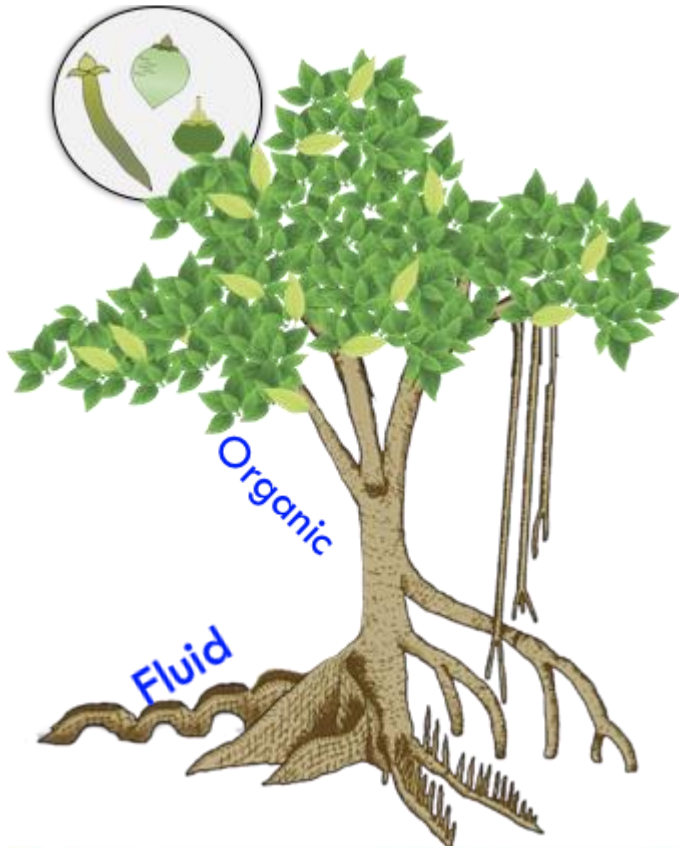
Conceptually, a **"flexible curriculum"** is described as a curriculum that emphasises two key characteristics, which are, **"fluid"** and **"organic"**.

The word **"fluid"** refers to the nature of a substance that is continuously flowing, liquid or unsolidified. A fluid curriculum is therefore not fixed or rigid, and easily adapts and adjusts in response to circumstances.

The word **"organic"** refers to a natural characteristic, one that is not synthetic or artificial. An organic curriculum, therefore, is one which encourages learning to grow in its natural state, whereby students are allowed to grow as learners by exploring knowledge/skills of their own choice.
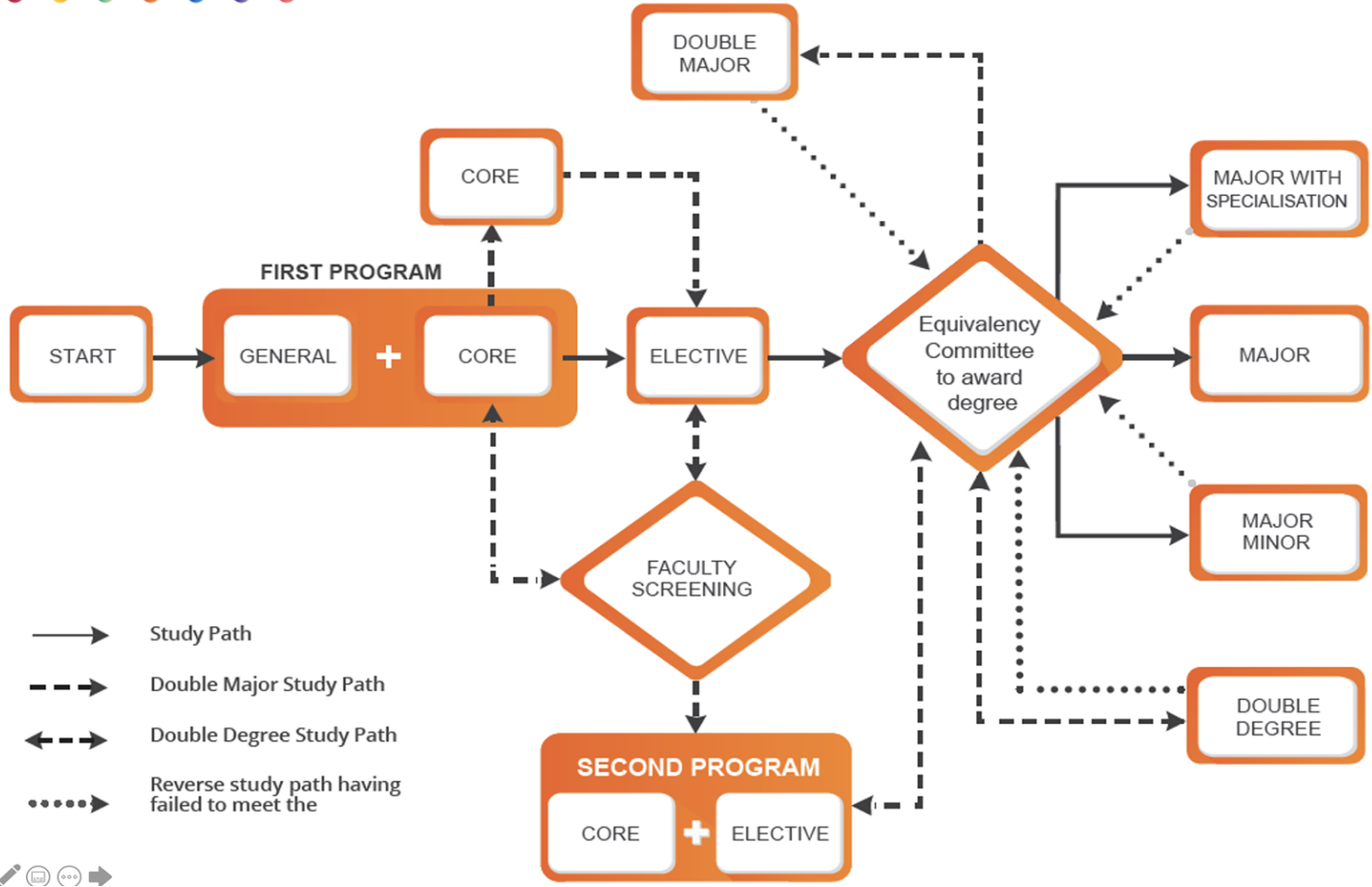
Flexible Study Path for Future Education

Attributes of PUTRA InnoCreative

PreCEptor is the key enabler of PrIDe for the transformation towards producing future-proof PUTRA Graduates. InnoCreative Educator is a term to model an educator who has the ability to ensure meaningful learning using designed, engaging, personalized and scholarly teaching delivery. The attributes of an InnoCreative Educator is the extension of the Future-Proof PUTRA Graduates attributes which are critical thinking, collaborative, creative, communicative, character and citizenship.

Subject-matter expert should be the basic of teaching to ensure accurate content delivery.

Educator is aspired to design the teaching strategies according to the learning needs.

This ensures that learners have the soul to go beyond acquiring the expected learning outcome.

Access and dissemination of updated relevant knowledge and interaction with learners through a variety of connectivity means.

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PreCEptor Transformation

Scholarly Educators
Conduct studies to improve the effectiveness or propose new innovative teaching methods and tools, and share the results with the public

Engaging Educators
Deliver the course contents very well, with high engagement from the learners, according to the pre-planned teaching and learning activities

Content Experts
Have mastered the necessary knowledge in the areas of the course contents

PUTRA InnoCreative Educators
Have all the qualities to innovatively transform teaching and learning delivery, supporting the creation of unique learning experiences in UPM

Compassionate Educators
Engage and inspire the learners beyond the classroom, creating a lasting personal learning impact and promoting life-long learning qualities in the learners

Learning Designers
Produce a good planning of teaching and learning activities that are suitable with the contents to be delivered

Future-proof

Scholarly

Humanising

Executing

Planning

Planning

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"SCIENTISTS HAVE RECENTLY DETERMINED THAT IT TAKES APPROXIMATELY 400 REPETITIONS TO CREATE A NEW SYNAPSE IN THE BRAIN – UNLESS IT IS DONE WITH PLAY, IN WHICH CASE, IT TAKES BETWEEN 10 AND 20 REPETITIONS!"

- DR. KARYN PURVIS

Teach students for lifelong learning, not for finishing the syllabus!

Create a learning experience that let the students to relate to their life and work, beyond the classroom.

Make the learning fun because this will ensure the students will remember something about what they have learnt.

SCHOLARLY EDUCATOR

The original of evolving goals of the innovations

Needs for innovation

Designing and customizating innovation(s) to address the need

A context which the innovation (s) was conceived and applied

Assessment of innovation

A scholarly educator makes a significant contribution to pedagogical knowledge by engaging with a scholarly approach to their teaching practice and contributing to the scholarly research literature. Successful candidates would influence educational practice as well as educational knowledge. Scholarly educators are grounded in a student-centered perspective and share their findings with institutional colleagues, promoting communities of practice around their educational research.

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Initiative 1- 5 can be performed through PutraMOOC

PutraMOOC (Putra Massive Online Course)

A PutraMOOC that meets the quality standards will be offered to four target participants which are academic students, community, industry and individuals

Blended Learning Substitute (Pembelajaran Teradun Gantian)

A teaching approach that combines physical and virtual meeting (maximum of 79% online). In UPM the maximum virtual lessons allowed is 7 weeks. The number of learning elements to be developed is based on the course's credit hour.

Credit Transfer MOOC (Pindah Kredit MOOC)

Students are allowed to transfer credit from equivalent MOOC courses into their academic program in UPM

2

1

3

UPM Global Online Learning Empowerment

PutraCGOL (Putra Collaborative Online Learning)

Students in UPM and collaborating international institution learns together online between 4 to 6 weeks in an academic course

PutraOVS (Putra Online Visiting Scholar)

Scholars from and outside UPM are engaged for online service within minimum 2 weeks

5

4
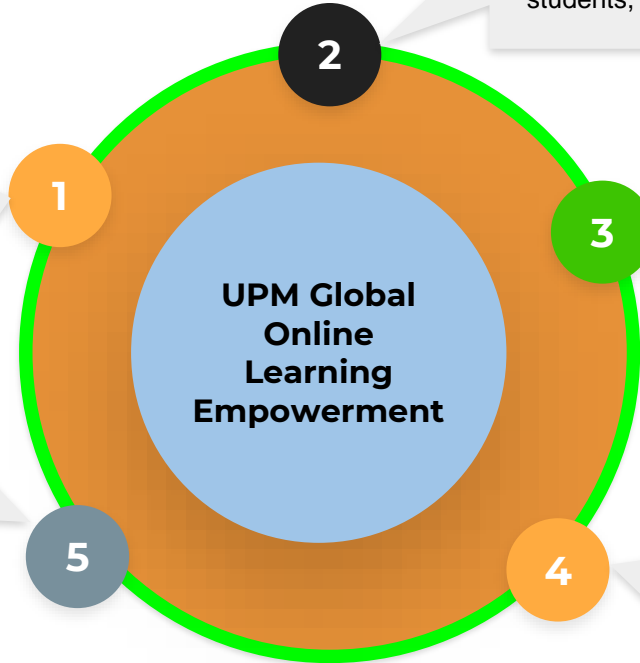
PutraMOOC progression

2014 **2019** **>2020**
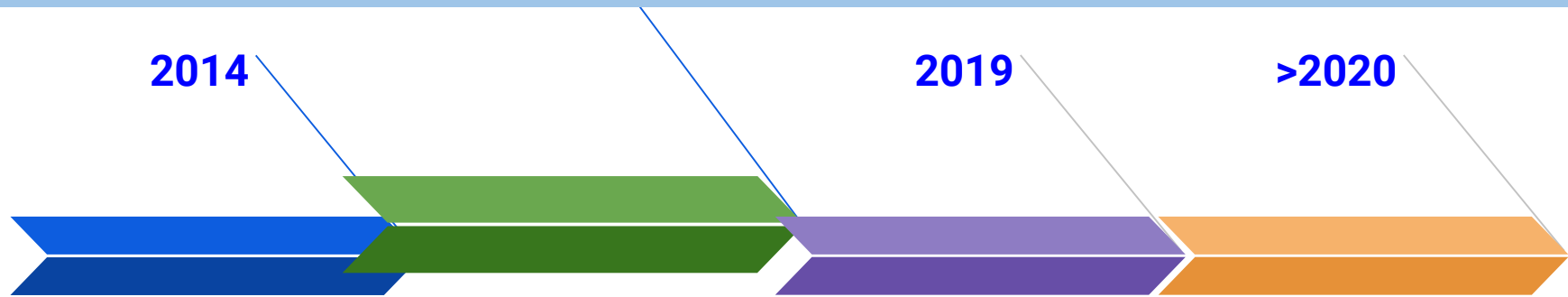
Exploration

PutraMOOC was introduced as an initiative for global online learning

Reinforcement

16 PutraMOOC courses have been active between year 2014 until 2018. Each faculty is requested to develop 2 PutraMOOC courses

Empowerment

A new PutraMOOC platform is launched, at www.putramooc.upm.edu.my /mooc

PutraMOOC course quality assurance is implemented

Acceleration

24 PutraMOOC courses are ready to be offered. Focuses on outreaching to inclusive learners. Credit Transfer MOOC to support flexible curriculum

PUTRAMOOC COURSE OFFER STRATEGY

*Faculty / School can offer the same PutraMOOC courses in various forms of offer categories.

CATEGORY

- **ACADEMIC**
- **SPECIAL COMMUNITY**
- **INDUSTRY**
- **PUBLIC SOCIETY**

TARGET PARTICIPANTS

Students enrolled in any academic program (eg higher education institutions and schools)

Specific communities (e.g. uniformed team clubs using PutraMOOC courses as knowledge development training)

Industry (for example, the training unit of a company that takes PutraMOOC courses to improve staff competencies)

Public (taking PutraMOOC course to improve general knowledge and develop self-competence)

80%

PutraMOOC courses offered through the Academic category require **content equality**

to provide an opportunity for students to apply **MOOC credit transfer**

Support "University for Society" in UPM Strategic Plan 2020-2025

Strengthening the impact of development expertise and knowledge - UPM global visibility

Innovation in attracting new students for various academic programs at UPM

One of the options for community and industrial networking activities by the faculty

Activities with MoU partners

As Summer Camp program by faculty

Opportunities for students to apply for MOOC Credit Transfer

http://putramooc.upm.edu.my/mooc/

PutraMOOC for Developing Educators Competency

1. **For eCPD**
2. **For UPM Teaching Foundation Course**
3. **Open to UPM and others**

Outcome Based Education

88 students

Learning With PutraMOOC

79 students

Imagineering InnoCreative Educators

85 students

e-Learning UPM

29 students

Various Events to Recognize Innovation in Teaching and Learning

Continuing Professional Development (CPD) addresses the need for lifelong and continuous learning. The primary objective of CPD for the academic community is to maintain and enhance existing technical and professional skills in order to better meet changing responsibilities and expectations.

PUTRA INNOCREATIVE EDUCATOR

01 Academic Governance, Ethics and Professionalism
Instructional Leadership, Ethics, & Professionalism

02 Curriculum Design and Management
Curriculum Design, Curriculum Planning, & Curriculum Management

03 Innovative Delivery and Assessment
Technology Integration, Innovative Pedagogy, Heutagogy, Andragogy, Cybergogy, Innovative Assessment

04 Educational Research
SoTL Scholarship of TnL & Publication

05 Supervision, Mentoring and Extension
Supervision, Mentoring & Extension

VS

The OECD Learning Compass 2030 distinguishes between three different types of skills:

- cognitive and meta-cognitive skills, which include critical thinking, creative thinking, learning-to-learn and self-regulation,

- social and emotional skills, which include empathy, self-efficacy, responsibility and collaboration,

- practical and physical skills, which include using new information and communication technology devices.

The characteristics of effective learning space are as follow:

- Adjustable to meet the learning activities
- Allow for movement
- Allow for various groupings
- Allow for hands-on exploring, making, and building
- Allow for curriculum integration, including the arts
- Support social interaction and development
- Support cognitive skills and development
- Support the integration of technology
- Provide opportunities for students to learn through examples

Photo Credit: CADe UPM

Simulative industrial experience

Makerspace

Experimental behavior observation space

Green learning space

Global learning

Immersive learning space

More details about each learning space at glossary

UNIVERSITI PUTRA MALAYSIA
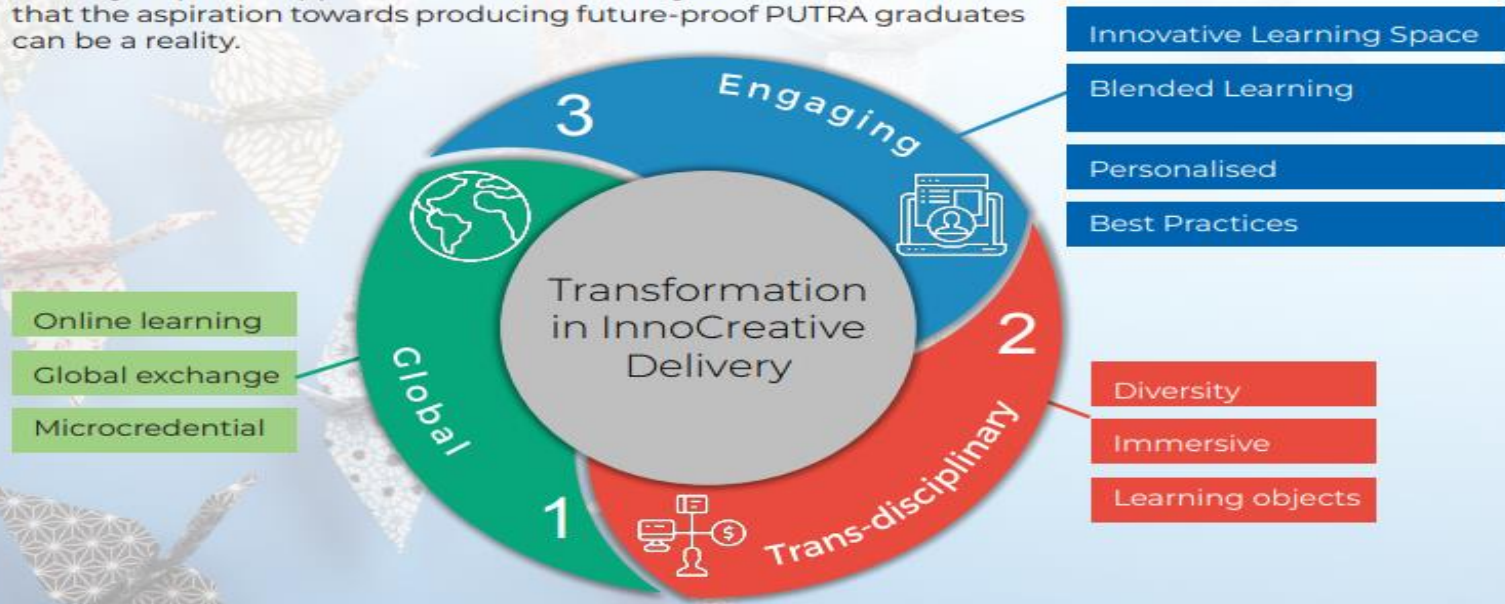AGRICULTURE • INNOVATION • LIFE

60

Teachers have three loves: love of learning, love of learners, and the love of bringing the first two loves together.

Scott Hayden

meetville.com

Way Ahead

In order to execute the UPM Academic Transformation, innocreative delivery transformation needs to happen at individual (e.g., PrECeptor and PrIDe), course and program levels. The way ahead for innocreative delivery requires support and collaboration by all the stakeholders so that the aspiration towards producing future-proof PUTRA graduates can be a reality.

Innovative Learning Space

Blended Learning

Personalised

Best Practices

3 Engaging

Transformation in InnoCreative Delivery

Global

Online learning

Global exchange

Microcredential

1

2

Trans-disciplinary

Diversity

Immersive

Learning objects

How does your teaching & learning, research, publication, and services address the Sustainable Development Goals, Industry 4.0 and COVID-19 pandemic? Why?
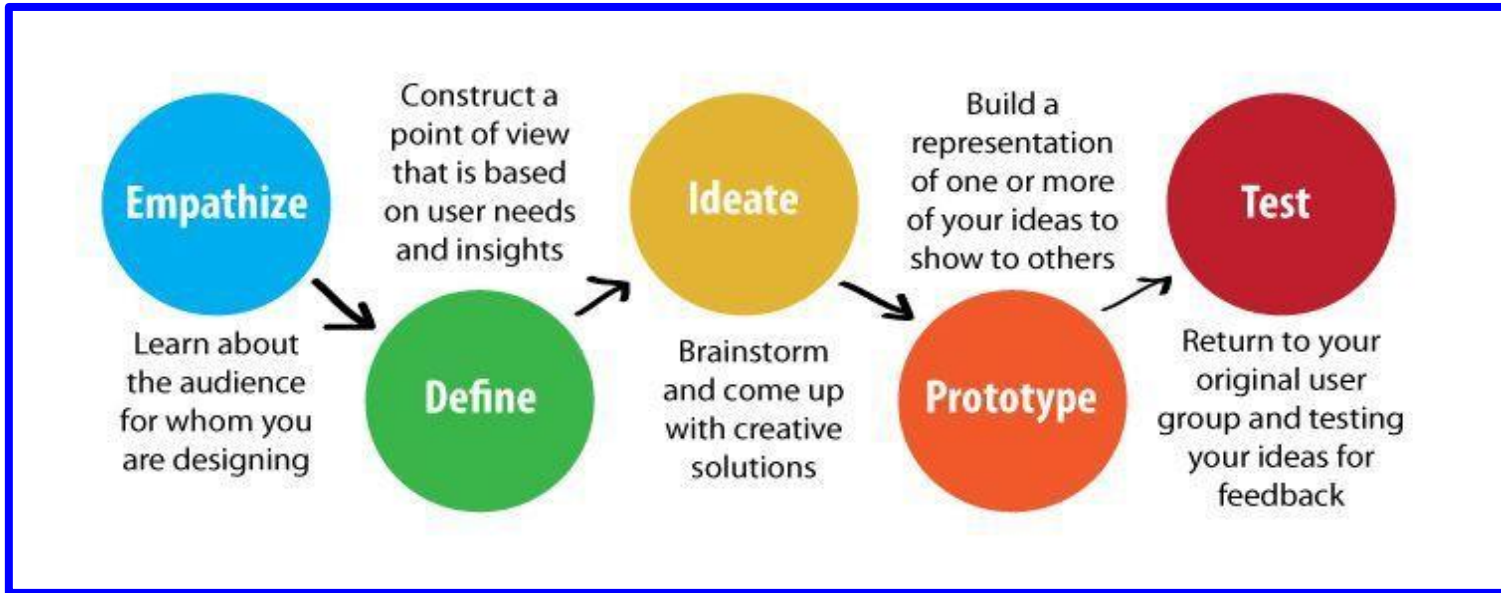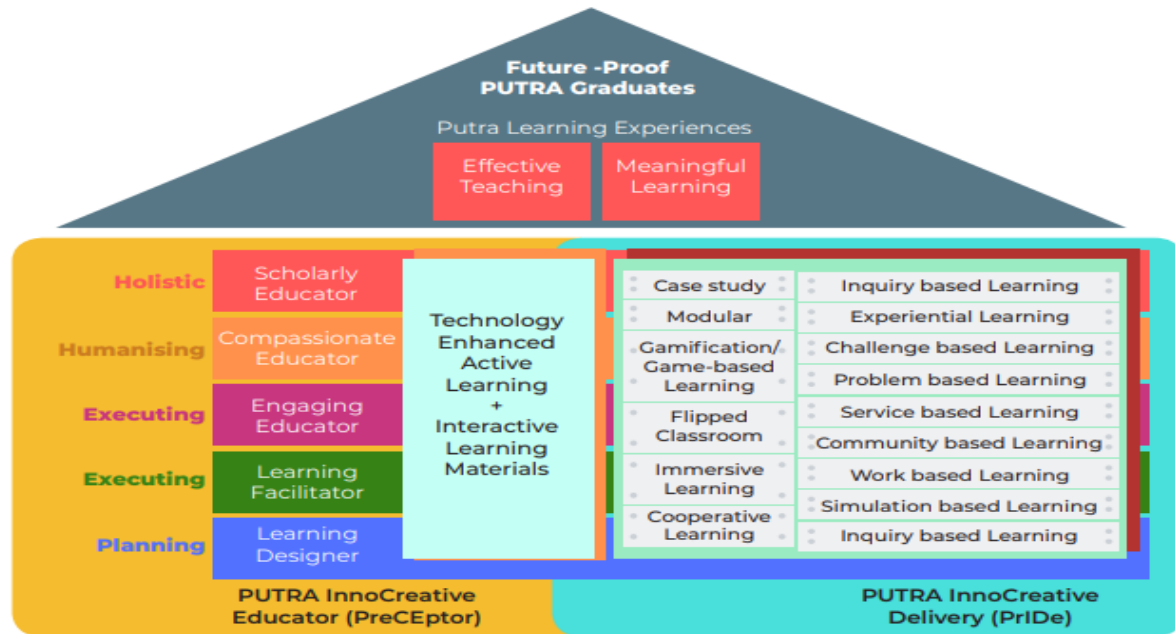**We are all living in the PHYSICAL, DIGITAL and BIOLOGICAL world**
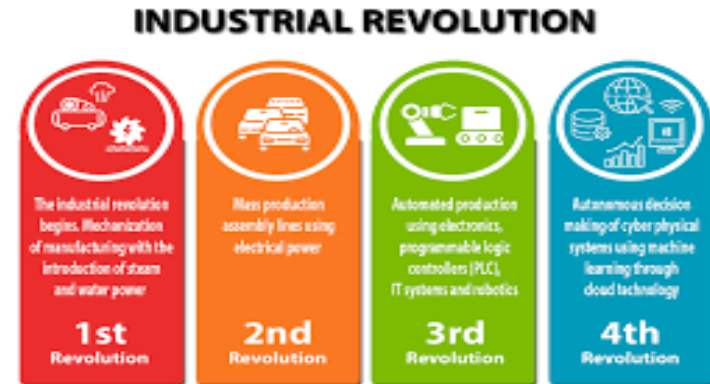
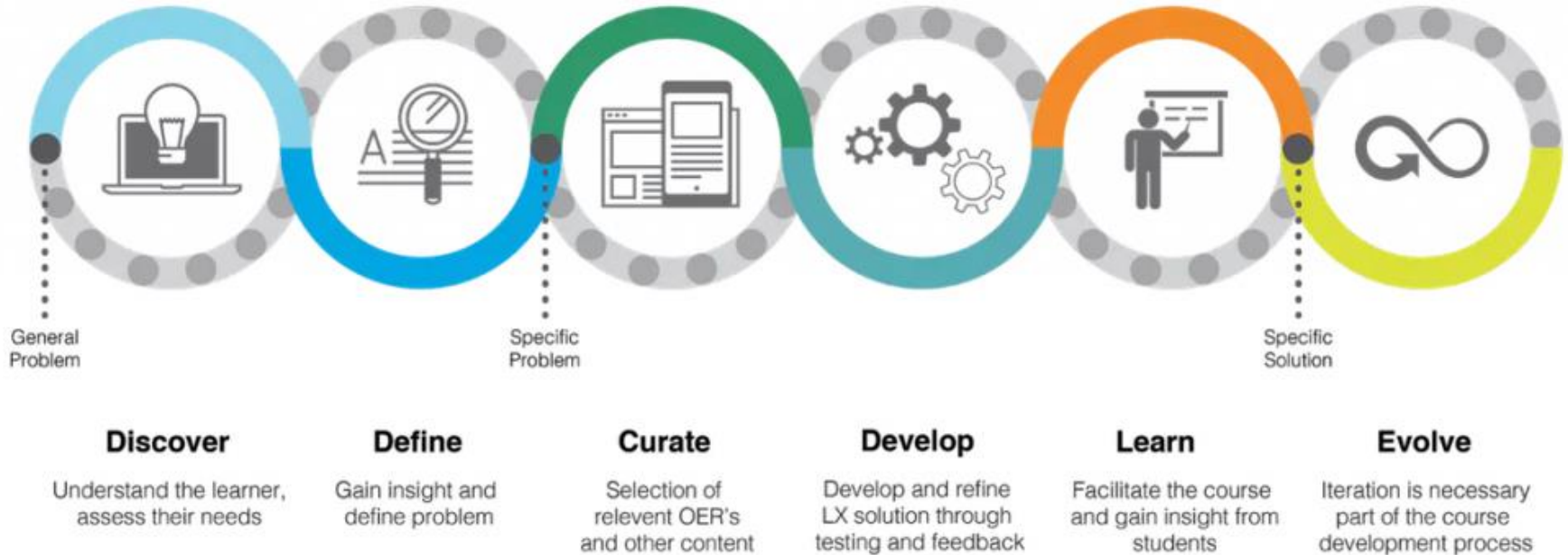# Leverage **Design Thinking in your teaching**

It is found that AAN winners apply design thinking in their teaching and also practiced it in other roles as an educator

InnoCreative Delivery Framework

Future -Proof PUTRA Graduates

Putra Learning Experiences

| Effective Teaching | Meaningful Learning |

Holistic	Scholarly Educator		Case study	Inquiry based Learning
Humanising	Compassionate Educator	Technology Enhanced Active Learning + Interactive Learning Materials	Modular	Experiential Learning
			Gamification/ Game-based Learning	Challenge based Learning
Executing	Engaging Educator			Problem based Learning
			Flipped Classroom	Service based Learning
Executing	Learning Facilitator			Community based Learning
			Immersive Learning	Work based Learning
Planning	Learning Designer		Cooperative Learning	Simulation based Learning
				Inquiry based Learning

PUTRA InnoCreative Educator (PreCEptor)

PUTRA InnoCreative Delivery (PrIDe)

The initiatives in the Innovative Teaching and Learning Delivery Transformation could be implemented by the PUTRA InnoCreative Educator (PreCEptor) who enables PUTRA InnoCreative Delivery (PrIDe) for effective teaching and meaningful learning towards producing Future-Proof PUTRA Graduates.

Transformation of InnoCreative Delivery

Discover — Understand the learner, assess their needs

Define — Gain insight and define problem

Curate — Selection of relevent OER's and other content

Develop — Develop and refine LX solution through testing and feedback

Learn — Facilitate the course and gain insight from students

Evolve — Iteration is necessary part of the course development process

General Problem · Specific Problem · Specific Solution

From Instructional Design to Learning Experience Design
**(The Rise of Design Thinking, Ceren Korkmaz)**

Incorporate IR 4.0 in teaching, research and services. Expose student to advancements to increase their graduate employability

6 Ways to Build Lifelong Learning Skills in Your Learners

- **Encourage Learning Ownership. Ultimately, we are responsible for our own learning. ...**
- **Turn Mistakes Into Opportunities. The practice of learning from mistakes is one of the best lifelong learning skills anyone can master. ...**
- **Stash a Few Go-To Learning Tools. ...**
- **Let Them Take the Teaching Reins. ...**
- **Find Time to Play. ...**
- **Set Learning Goals**

"What we learn with pleasure we never forget."

— Alfred Mercier

BeAnInspirer.COM

https://wabisabilearning.com/blogs/critical-thinking/6-lifelong-learning-skills
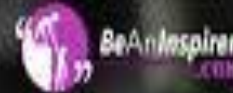
Future Educator Attributes

ARE ADVOCATES FOR THE PROFESSION
An adaptive educator should be an advocate not only for their learners but their profession.

ARE FORWARD THINKING
An effective 21st-century educator thinks about their learners' future and is aware of the career opportunities that may arise from them. They should be able to plan in advance.

KNOW HOW TO COLLABORATE
An effective educator must be able to collaborate and work well within a team and share ideas and knowledge with others.

ARE TECH SAVVY
Technology is changing at a rapid pace and that means that a 21st-century educator is right along for the ride. An effective educator knows that learning about the latest gadget can truly transform their learners' education.

LIFELONG LEARNERS
These educators do not just expect their learners to be a lifelong learner, but they are as well. They stay up-to-date with current educational trends and technology and know-how to tweak their old lesson plans from years before to make them more current.

THEY ARE ADAPTIVE
They are able to adapt to whatever comes there way. Being an educator in today's world means that you have to adapt to the ever-changing tools and changes that are being implemented in the schools.

LEVERAGE ON TECHNOLOGY
However, be the Master not the slave of Technology

Digital Tranformation

Learning and Development for Organization

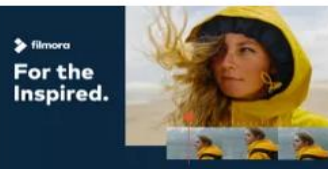| Digital Learning Platform	Interactive Virtual Activity Tools	Different Learning Methodologies	Learning Video Editing Tools	Digital Learning Classrooms
Udemy	**Mentee Meter**	**Physical Classroom**	**Filmora**	**Zoom**
Online Courses - Learn Anything, On You... Udemy is an online learning and teachin... udemy	Interactive presentation software Interact with your audience using real-ti... mentimeter	Maximizing Learning Through Effective ... For teachers, the way you set up your cla... advancement courses blog	[OFFICIAL] Wondershare Filmora - Easy, ... "This video editor is easy for anyone to le... wondershare	Video Conferencing, Web Conferencing, ... Zoom is the leader in modern enterprise ... zoom video
Coursera	**Padlet**	**Synchronous**	**Inshot**	**Google Classroom**
Coursera | Build Skills with Online Cours... Join Coursera for free and learn online. B... coursera	Padlet: You are beautiful From your hobby to your career, your cla... padlet	Synchronous Learning Simply Put: Defin... Even if you don't know what synchronous... your digital learning expert	InShot Release your Unlimited Creativity with In... inshot	Classroom: manage teaching and learni... Classroom helps students and teachers ... google for education
Teachable	**Quizizz**	**Asynchronous**	**Kinemaster**	**Microsoft Teams**
Teachable: Create and sell online course... Create and sell online courses and coac... teachable	Quizizz: Free quizzes for every student Free gamified quizzes on every subject t... quizizz	Asynchronous Learning: Definition, Bene... Asynchronous Learning is the key featur... schoology	KineMaster - Video Editor, Video Maker -... Want to create incredible videos on your ... google	Chat, Meetings, Calling, Collaboration | ... Microsoft Teams is the hub for team coll... microsoft

Digital Learning Platform	Interactive Virtual Activity Tools	Different Learning Methodologies	Learning Video Editing Tools	Digital Learning Classrooms

Kajabi

Kajabi - The All-In-One Online Business ...
Launch your online business in minutes ...
kajabi

Miro

Whiteboard for online education | Miro
From online classes and distance learnin...
https://miro.com/

Flipped

What, Why, and How to Implement a Flip...
Flipped classroom is a "pedagogical app...
msu

Filmicpro

FiLMiC Pro - Mobile Video Camera for iO...
FiLMiC Pro for iOS & Android is the most...
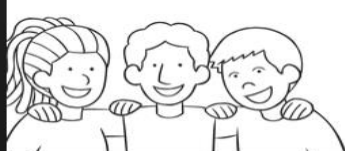filmic pro mobile video
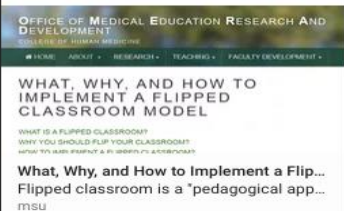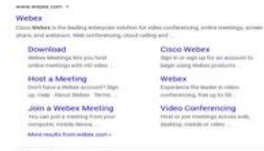
Webex

webex - Google Search
Please click here if you are not redirecte...
google

Edmodo

Organizations - Edmodo
Educate and grow your community Drive ...
edmodo

Playmeo

Find Online Interactive Group Games | pl...
Learn from 250+ live video tutorials Crea...
playmeo

Blended

The Most Effective Training Techniques ...
There are numerous methods and materi...
simplifytraining

Autocaps

AutoCap - automatic video captions and ...
AutoCap adds stunning animated captio...
google

EasyClass

Easyclass | Create your digital classroo...
Any assignment or quiz you post to your ...
easyclass

Teachific

Teachific
Welcome to my unshuttable Caboodle B...
teachific

Canva

Features
Do you want to create awesome designs...
about canva

Physical and Virtual Comparison

Online training vs face to face learning
Are you wondering what benefits you ca...
elucidat

ShortURL

ShortURL - URL Shortener
Custom short links, powerful dashboard, ...
shorturl

GoToMeeting

Online Meeting Software with HD Video ...
GoToMeeting web conferencing softwar...
gotomeeting

Google Slides

What will be your NOBEL contribution?

1. Reinvent yourself - Teaching portfolio
2. Understand yourself - Teaching philosophy
3. Apply yourself - Creativity and Innovation to Future-Proof your teaching
4. Evaluate yourself - Teaching assessment
5. Prepare yourself - Scholarship and professional development

[Zainal Ariffin Ahmad, FAsc (04Oct2020)]

Education Today… in the 21ˢᵗ Century…. In the globalized and connected world….

- …..is about adapting to changing world.

- **How** and **What** we teach has to change as well..

- **Leverage on Technology** – be the master, not the slave of technology

Abd Karim Alias @usm

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*HAPPY ACADEMIA MONTH

*STAY SAFE!!!

No matter what career you do, enjoy your career. You'll be happy to work.
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