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ARTIFICIAL INTELLIGENCE (AI)

Impact on Education

A Talk at Avinashilingam Univeristy, 19 June 2023

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NOTES FROM THE ORGANISERS

- **Education in the 21st Century is different**
 - Brick and mortar to Ubiquitous contexts; Less didactic and more self-driven; New pedagogical methods
- **Technology-enabled learning adds new dimension**
 - Augmented, Virtual, Extended Realities; New Instructional Design
- **Artificial Intelligence adds to the differences**
 - Intelligent tutoring systems; Teaching Robots; Learning Analytics and Dashboards; Adaptive Learning Systems; Human-Computer Interactions
- **AIU-AI-AADC and CMLI Short-term Programme**
 - Theoretical, pedagogical and computational aspects of AI; Use of AI techniques in learning and instructions; Future AI practice, research and development
- **Learner-centeredness, human agency, lifelong learning in innovation-driven knowledge age**



OBJECTIVES OF THE PROGRAMME

01.

INTRODUCTION TO MAJOR PARADIGMS

Evolution, Theoretical Foundations, Conceptual Research, Implementation

02.

ORIENTATION TO PARTICIPANTS

AI as a component of Teaching, Learning and Evaluation process

03.

DISCUSSION ON IMPACT

Direct cognitive learning among learners

04.

MAP TECHNOLOGIES

For Pedagogical and intended research outcomes

05.

INCULCATE COLLABORATION

Iterative, learner-centered, data-driven, personalised

06.

BUILD FACULTY CAPACITY

Facilitate value-based tradition towards changes in higher education

ACKNOWLEDGEMENT

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Dr S Kowsalya

Dr P Subashini

Dr Ramya

Dr Pankaj Mittal

Dr Amarendra Pani

Dr Venkataraman Balaji

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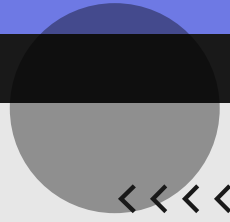
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COMMONWEALTH OF LEARNING

COL's mission is to help governments, institutions and organisations expand the scale, efficiency and quality of learning by using appropriate open, distance and technology-based approaches. COL aims to

- build on its expertise in ODL, OER and TEL to play a more influential role in national policy development and implementation;
 - invest in innovations and research;
 - support the digital transformation of institutions and organisations;
 - promote gender equality; and
- implement a rigorous monitoring and evaluation plan.





01.

MAJOR PARADIGMS OF AI

Evolution, Theoretical Foundations,
Conceptual Research, Implementation



EVOLUTION



ERAS

1950-70: Mimic era
1970-90: Two winters
1990-2010: Resurgent era
2010 - : Present era



STAGES

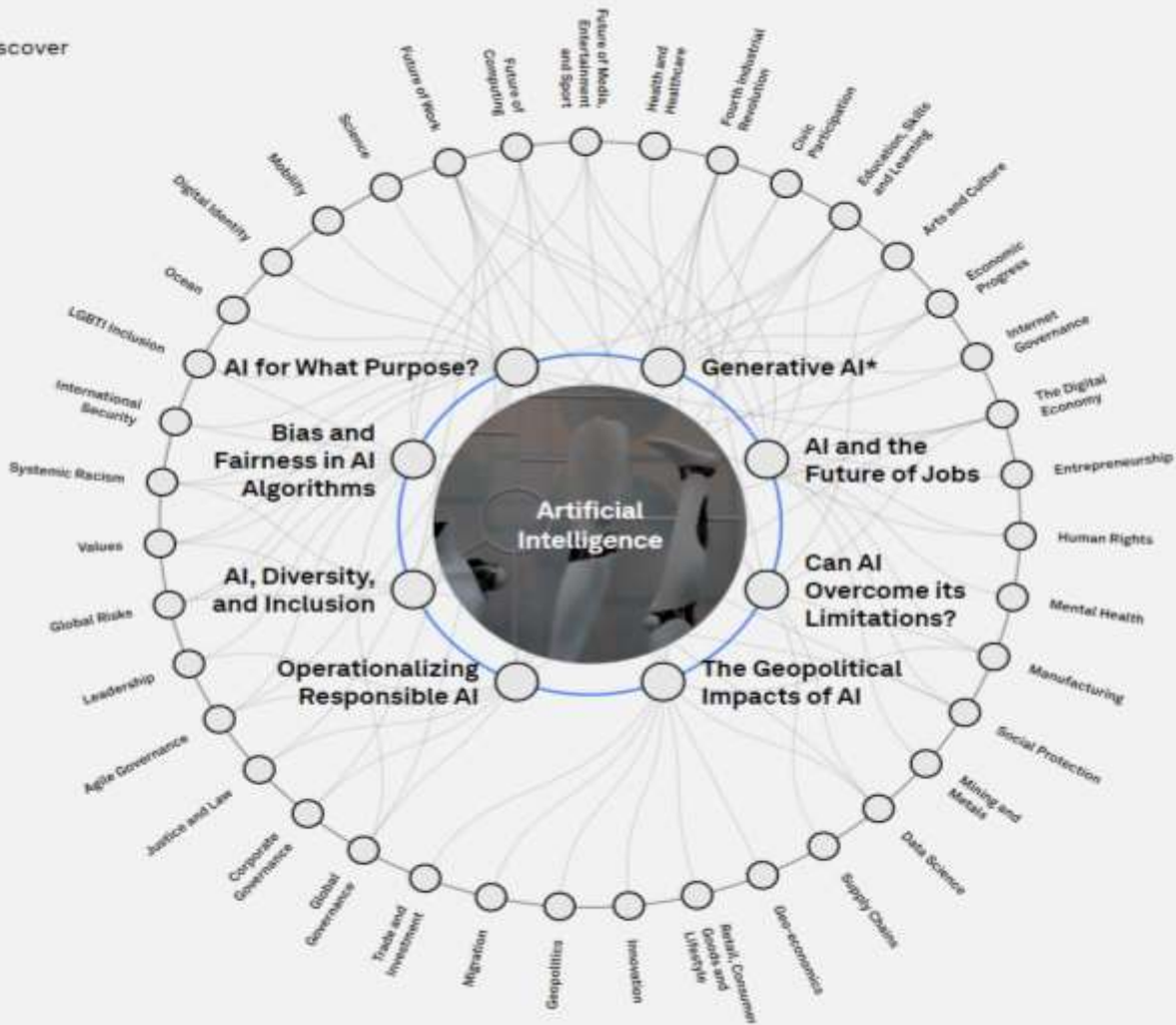
Reactive AI
Limited Memory AI
Theory of Mind AI
Self-awareness AI
General Intelligence AI



FOUNDATION

Logic
Probability
Machine Learning
Data Mining

← Discover



EVOLUTION

AI

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CONCEPTUAL FRAMEWORK

- Rule-based System
- Expert System
- Neural Network
- Genetic Algorithm



IMPLEMENTATION

- Define
- Gather Data
- Choose Algorithm
- Train and Test System
- Deploy



02.

ORIENTATION TO AI

As a component of Teaching, Learning and
Evaluation process



PROBLEM VS. SOLUTION



PROBLEM

In Teaching/Learning?
In Assessment?
In Outcome-based Education?
To Teachers?

In Teaching/Learning?
In Assessment?
In Outcome-based Education?
To Teachers?

SOLUTION



ARTIFICIAL INTELLIGENCE (AI)



03.

IMPACT OF AI

As a component of Teaching, Learning and Evaluation process



ORIENTATION TO AI IN EDUCATION



PERCEPTION

Panacea
Threat
Divide



REAL

Ethics and Bias
Inflexible
No creativity
Vulnerable



POSSIBILITIES

Work and impact
Weaponization
Weakening of institutions
Challenge to basic rights



TEACHING/LEARNING

Personalisation
Diversity, Equity and Inclusion
New Experiences - Virtual
Tutors, Chatbots, Gamification
Information and Media Literacy



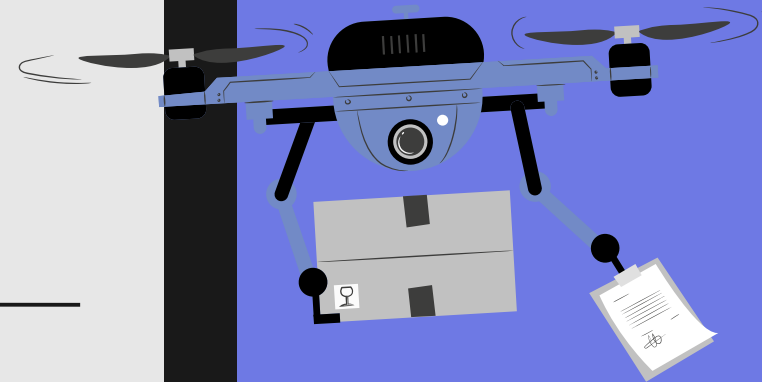
ASSESSMENT/EVALUATION

AI powered grading
AI as a buddy for feedback
AI powered assessments
Adaptive Assessments

04.

AI TECHNOLOGIES

For intended educational outcomes





AI GEOGRAPHIES

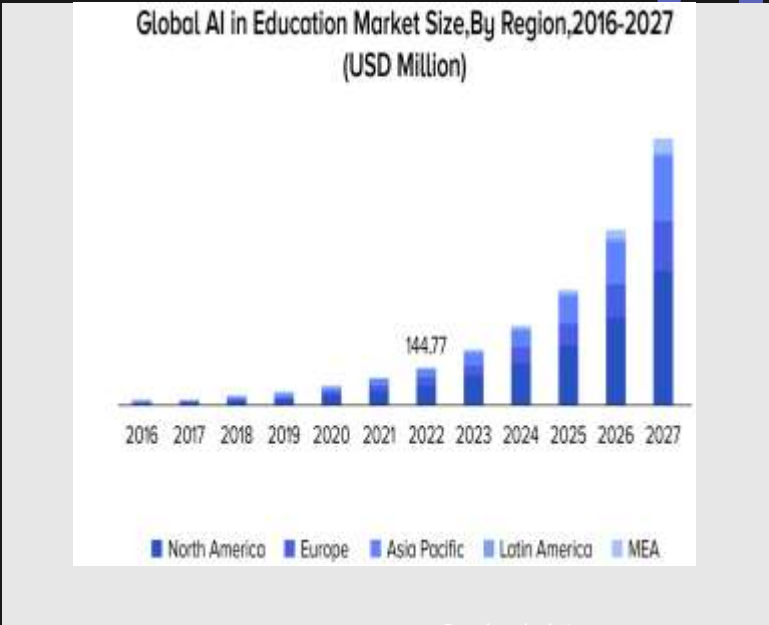


ARTIFICIAL INTELLIGENCE (AI)

MARKET SHARE



- Health care
- Manufacturing
- Retail
- Finance



Gminsights.com



05.

AI FOR COLLABORATION

For Iterative, learner-centered, data-driven,
personalized learning approaches



/// STEER FOR AI IN EDUCATION



DATA

Incomparable resource



COST

Moore's Law working?



POWER

Again, Moore is alive?



PERSONALISATION

Learners' demand for experience



EFFICIENCY

Improving outcomes



PRODUCTIVITY

Scaling and widening,
and narrowing

AI applications and benefits in education industry

- Personalized learning
- Task automation
- Smart content creation
- Adaptable access
- Determining classroom vulnerabilities
- Closing skill gap
- Customized data-based feedback
- 24*7 assistance with conversational AI
- Secure and decentralized learning systems
- AI in examinations



OUR PARTNERS



EDUCATIONISTS

Who wish to shape-up the AI world

TECHNOLOGISTS

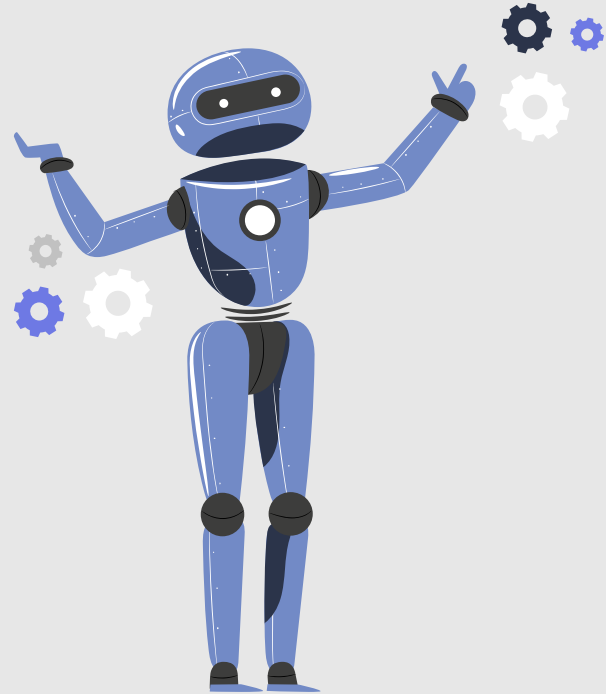
Who are bent upon changing the world

MARKET

Tunes itself to 21st Century culture and practices

LEARNERS

Who will require to be adaptive, creative



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"Artificial intelligence is the future of education." -
Sugata Mitra

"AI has the potential to revolutionize education by providing personalized learning experiences, making it more engaging and effective." - Sal Khan

"AI can help to prepare students for the jobs of the future by teaching them the skills they need to be successful in a rapidly changing world." - Andrew Ng

AI
IN
[AI]





EDUCATION AT THE DOORSTEPS – WITH A DIFFERENCE?

THANKS



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