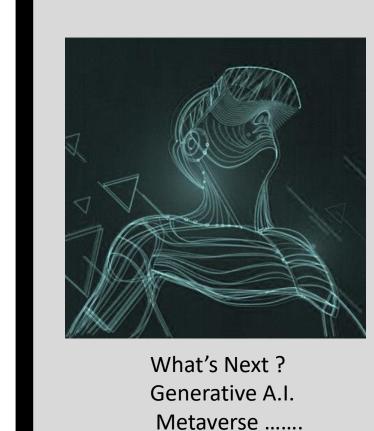




Pocket Electronic Calculator

# Ingenuity & tools: Past, Present, Future

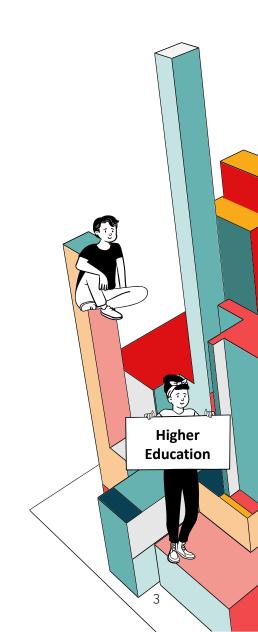




# **Keynote Outline**

- I. Disruptions and opportunities
- II. Importance of higher education in supporting the transition
- III. Top 10 most in-demand skills for the next 10 years
- IV. Strategies of leveraging the intersection of digital transformation and green transition
- V. Closing





## **Disruptions and Opportunities**

Global Pandemic Recovery

Geopolitical Tensions and Uncertainty

**Climate Crisis** 

**Social Harmony and Polarization Distrust** 

**Energy and Food Security** 

Technology Disruption and Innovation

Regulation Changes; Globalization and Localization

Economics Recovery;
Digital & Green
Transition

## **Pandemic Effects and Implications**



Sustainability & Resilience of Global Health and Supply Networks



- Global cooperation on an integrated, unifying approach to balance and optimise the health of people, animals and the environment
- Strategic sourcing with countries with closer economic partnership
- Local capability development for critical components and manpower
- Reconfigure supply network services and reserves for resiliency purpose
- Responses to COVID-19 have speeded the adoption of digital technologies by several years (Source: McKinsey)
- Uneven participation in the new opportunities created by digital transformation
- Automation of low to middle skills tasks; Shifted labour demand towards digital skills
- Rising inequality required policy on inclusiveness on wider access and dissemination of new technologies



Technology
Advancement &
Digital
Transformation



## Importance of higher education in supporting the transition



and working professionals to acquire digital skills and continuous learning, build abilities and agency to imagine and create a better world



Strengthen R&D partnership with industry and society to catalyst change through knowledge and insights



Change the way of thinking, learning, working – reimagine Higher Education from inside out and advocate for change



Reimagine our story of being human in a world of ecological balance of Nature and progression.

### The future of work and top in-demand skills





- 1. Digital Literacy
- 2. Data literacy
- 3. Critical thinking
- 4. Emotional intelligence
- 5. Creativity
- 6. Collaboration
- 7. Flexibility
- 8. Leadership Skills
- 9. Time Management
- 10. Curiosity andContinuous Learning

Source: Forbes Aug 2022

- ☐ A.I. thinking
- A.I. ethics and governance
- ☐ Interdisciplinary contextualization
- Abstract thinking



# Governors Island Climate Hub will serve as a "Living Laboratory"

- Fund Raised by Private and Public Sectors: \$700m
- Winning Consortium led by Stony Brook University.
- 400,000 sq. ft hub called "New York Climate Exchange"
- Focus on researching climate solutions and training for green jobs is expected open in 2028

"It will truly be the first of its kind model for advancing research to accelerate the deployment of climate solutions that will help us with what I believe is the greatest threat of our time — the climate crisis,"

Maria Torres-Springer, the city's Deputy Mayor for Economic and Work Force Development

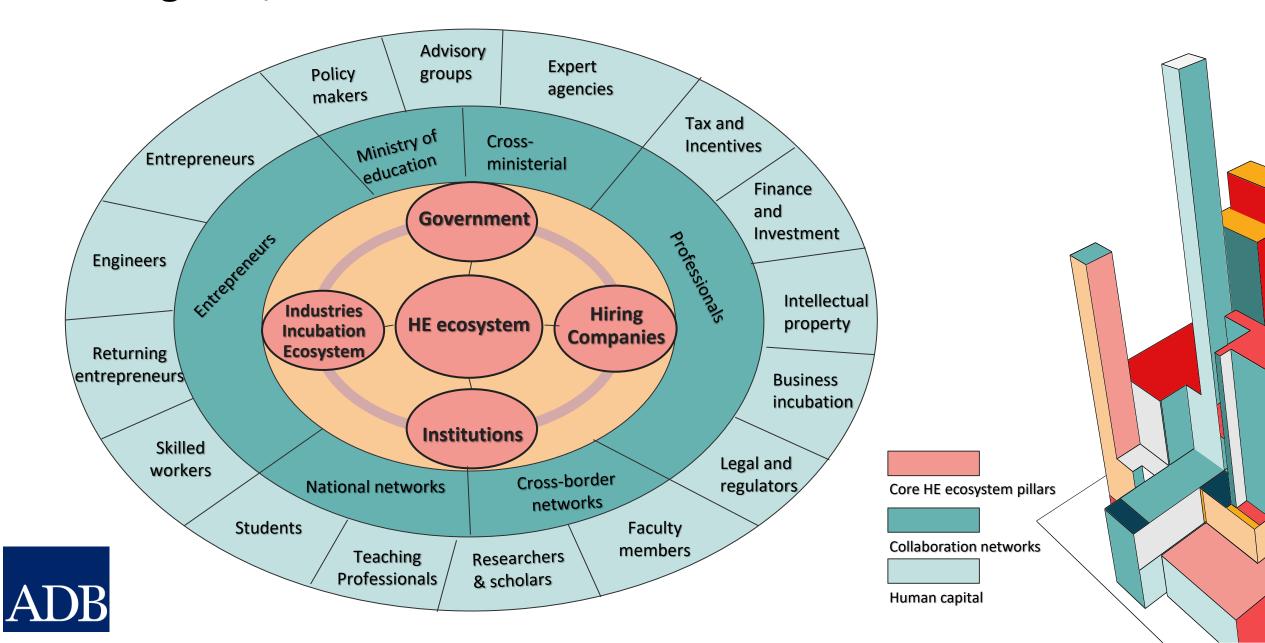
Source: New York Times 24 April 2023 https://www.nytimes.com/2023/04/24/nyregion/climate-hub-governors-island.html



A rendering of the proposed climate hub shows buildings covered with vegetation.

Credit: Skidmore, Owings & Merrill

### Convergence, Collaboration and Co-creation



#### **ADB Education Sector Vision and Strategy**

A quality assured, inclusive education system that ensures learning for all



## EXPAND OPERATIONS

- Demand and supply side incentives
- Cross-sectoral collaboration
- Partnerships
- Capacity of education workforce



PROMOTE HUMAN
CAPITAL AND
SOCIOECONOMIC
DEVELOPMENT

- Human capital development
- Whole of government
- Lifecycle approach

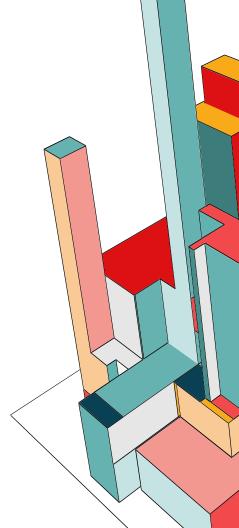


#### **INNOVATE**

- Quality, relevance, and equity
- Future of skills and jobs
- Municipalities and local governments
- Education technology
- Delivery and financing modalities



Global and Regional Drivers of Change: climate change, digitalization, demographics, labor mobility, urbanization



#### We are connected through a string of numeric sequence







Seashell

DNA

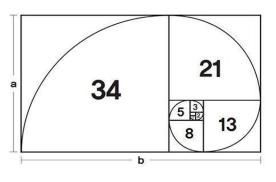
Galaxy

#### Fibonacci Sequence

0,1, 1, 2, 3, 5, 8, 13, 21, 34, .....

#### **Golden Ratio**

Phi (Φ) is 1.618033988749895



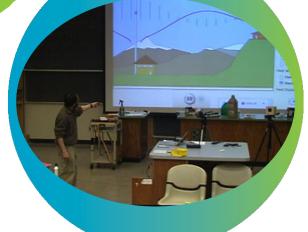
 $a/b = (a+b)/a = 1.618033 \cdots$ 













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