

# NALLAMUTHU GOUNDER MAHALINGAM COLLEGE

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VISION VIKSIT BHARAT 2047

## EDUCATION 4.0

Enhancing India's Workforce for the AI-Powered Future

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**Dr.M.AKILANAYAKI**

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# ROADMAP FOR SCALING EDUCATION 4.0 IN INDIA

**Dr.P.Archanaa**

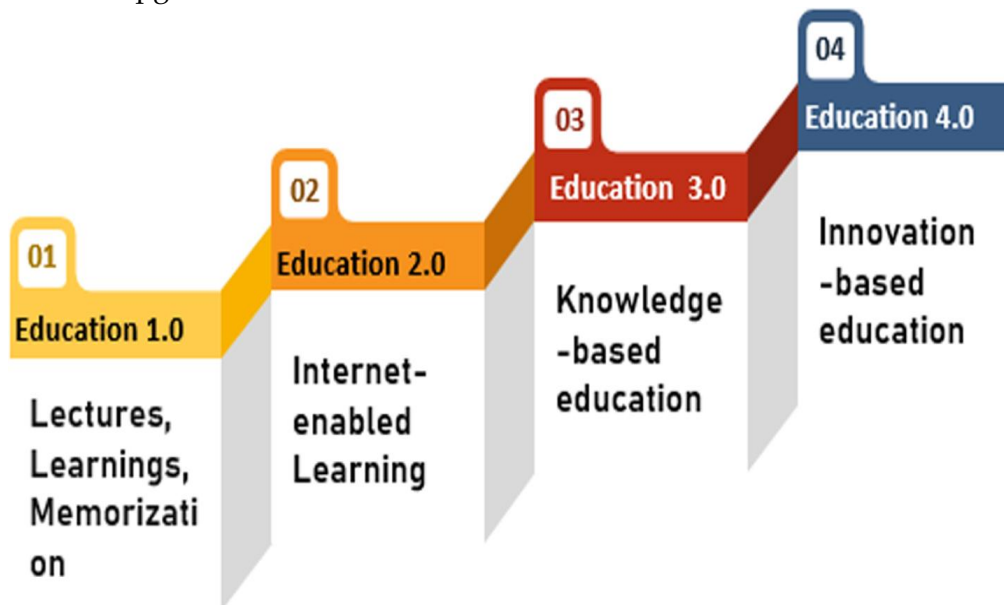
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## Introduction

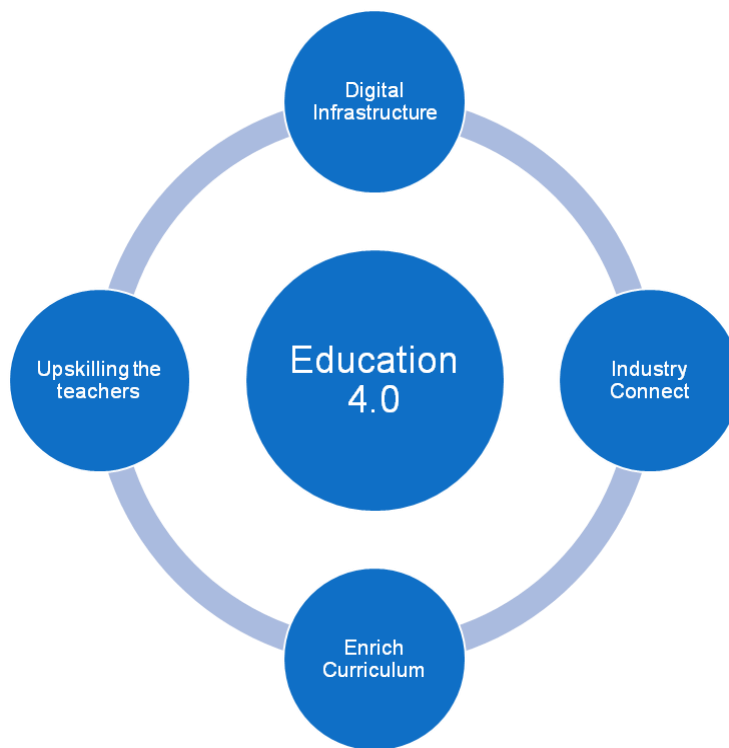
"Education 4.0" in India is a boon that focuses on leveraging technology to make education more accessible, personalized, and skill-oriented, with key elements of strengthening digital infrastructure, integrating emerging technologies like AI and VR, upskilling teachers, curriculum with industry connect, addressing digital divide, and promoting lifelong learning through initiatives, while prioritizing foundational literacy and numeracy skills across different demographics.

## Road Map for Scaling Education 4.0

The Sustainable Developmental Goal (SDG) 04 – Quality Education plays a vital role in the education development in India. Education in India at an early stage was gurukula which in turn slowly turned into lectures, internet enabled learning, knowledge based education. The upgraded version of the education is the innovation based education.



The following are the key components for the quality education, which paves a roadmap for scaling the education in India.

**i) Enhancement of Digital Infrastructure**

The broadband connectivity to be expanded in rural areas, as majority of the population in India is in rural area. Affordable devices and access to digital learning platforms are to be provided. Robust cloud computing infrastructure for educational institutions may be implemented.

**ii) Industry Connect through the reformation of Curriculum**

Establish industry-academia collaborations for curriculum development and research. Partner with businesses to develop industry-relevant skillsets and internship opportunities. Integrate STEM subjects and future-oriented skills like critical thinking, problem-solving, and adaptability into the curriculum. Develop competency-based learning frameworks aligned with industry requirements. Incorporate project-based learning and experiential learning approaches.

**iii) Upskilling the Teachers**

Ongoing professional development for teachers on integrating technology in the classroom can be provided to upgrade them. Teachers can be trained on personalized learning strategies and effective use of educational technology tools.

**iv) Awareness on Technologies through Personalized learning**

Exploration of applications of AI, AR/VR, and machine learning for interactive learning experiences. Utilizing intelligent tutoring systems for personalized feedback and support. An adaptive learning platforms to cater to individual student needs and pace to be utilized and implementation of data-driven insights to personalize learning pathways.

v) **Connecting the Digital Divide**

Initiating of digital literacy training for marginalized communities and creating a community learning centres with access to technology and support. Strong government policies and funding are essential to drive the implementation of Education 4.0 initiatives.

**Conclusion**

The personal demand principle, created because of technology's ability to serve personalised data to users, means that students and staff in higher ed are moving to a model where they access information when it is relevant to them, whether it's on their phone out and about on campus or on their laptop. This impacts on not only the courses offered to students, with a greater level of personalisation than previously required, but also creates an expectation shift that goes beyond education delivery. Students and staff expect to be able to access the information they need, when they need it. This has implications for data access behind the scenes.

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