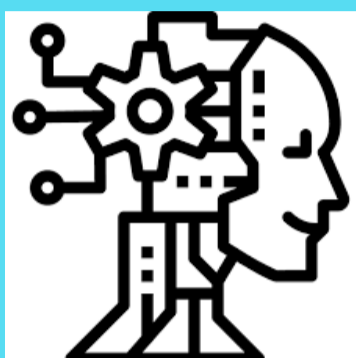


Online and Digital Education

Ensuring Equitable Use of Technology

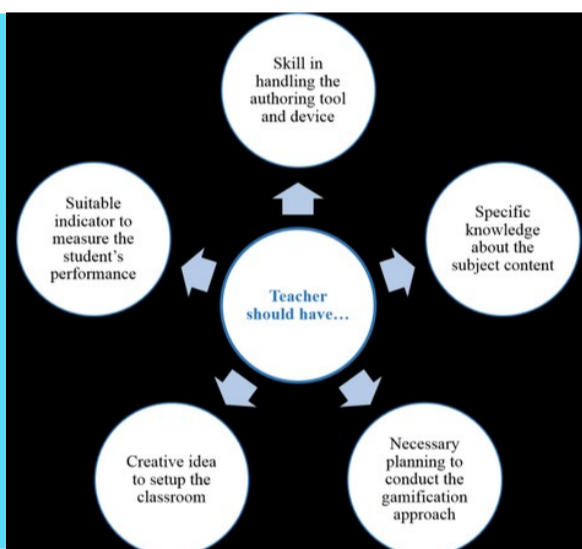


ARTIFICIAL INTELLIGENCE

Technique which enables computers to behave like humans

MACHINE LEARNING

Making machines learn from experience like humans without need to reprogram.

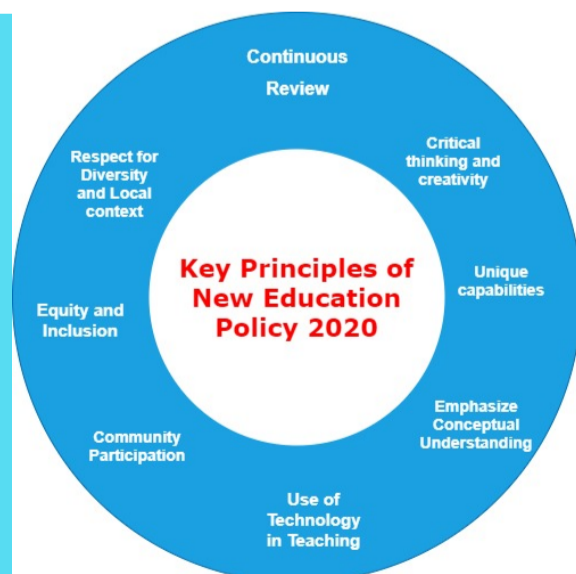


WHAT TEACHERS WILL NEED??

To remain relevant in the fast-changing field of educational technology.

EVERY ROOM IS A CLASSROOM

Beyond language barriers and physical barriers, everyone will be able to learn.



ONLINE AND DIGITAL EDUCATION

—
Ensuring Equitable Use Of Technology



BACKGROUND

India is a global leader in information and communication technology and in other cutting-edge domains, such as space. The Digital India Campaign is helping to transform the entire nation into a digitally empowered society and knowledge economy. While education will play a critical role in this transformation, technology itself will play an important role in the improvement of educational processes and outcomes; thus, the relationship between technology and education at all levels is bidirectional.



OBJECTIVE

New technologies involving artificial intelligence, machine learning, block chains, smart boards, handheld computing devices, adaptive computer testing for student development, and other forms of educational software and hardware will not just change what students learn in the classroom but how they learn, and thus these areas and beyond will require extensive research both on the technological as well as educational fronts.



What's New in
New Education
Policy 2020 on
Digital Front???

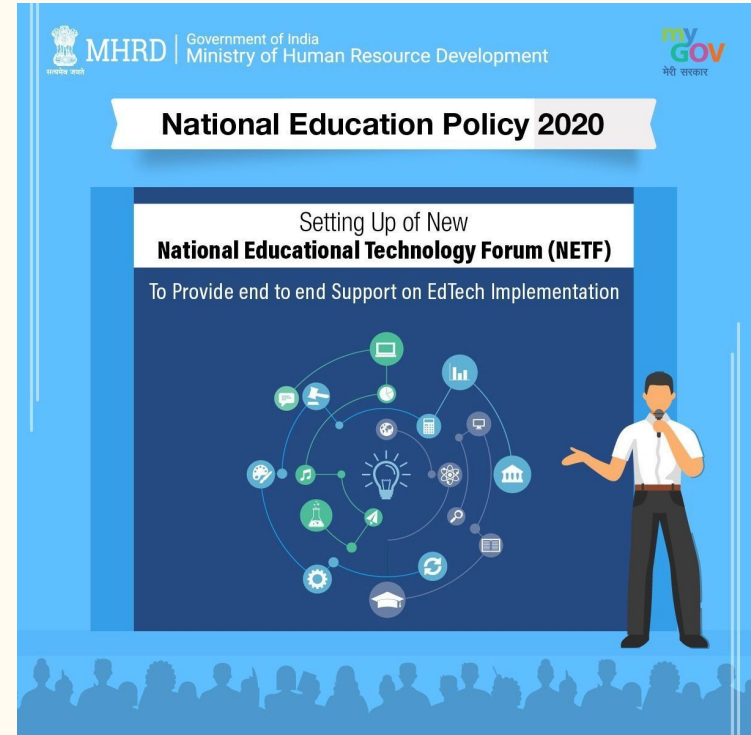
NETF(National Educational Technology Forum)

An autonomous body, the National Educational Technology Forum (NETF), will be created to provide a platform for the free exchange of ideas on the use of technology to enhance learning, assessment, planning, administration, and so on, both for school and higher education.

The aim of the NETF will be to facilitate decision making on the induction, deployment, and use of technology, by providing to the leadership of education institutions, State and Central governments, and other stakeholders, the latest knowledge and research as well as the opportunity to consult and share best practices.

Functions of NETF

- ❖ provide independent evidence-based advice to Central and State Government agencies on technology-based interventions;
- ❖ build intellectual and institutional capacities in educational technology;
- ❖ envision strategic thrust areas in this domain; and
- ❖ articulate new directions for research and innovation.



Digital Learning

New circumstances and realities require new initiatives. The recent rise in epidemics and pandemics necessitates that we are ready with alternative modes of quality education whenever and wherever traditional and in-person modes of education are not possible. In this regard, the National Education Policy 2020 recognizes the importance of leveraging the advantages of technology while acknowledging its potential risks and dangers. It calls for carefully designed and appropriately scaled pilot studies to determine how the benefits of online/digital education can be reaped while addressing or mitigating the downsides. In the meantime, the existing digital platforms and ongoing ICT-based educational initiatives must be optimized and expanded to meet the current and future challenges in providing quality education for all.

Traditional Teaching Vs Digital Learning

Traditional Teaching	Digital Learning
Finding Information	Vetting Information
Reading	Skimming
Note Taking	Curating
Prose Composition	Multi Modal Composition
	<ul style="list-style-type: none">• Information Design
	<ul style="list-style-type: none">• Data Visualization
	<ul style="list-style-type: none">• Dynamic Story Telling
	<ul style="list-style-type: none">• Programming
Static Artifacts	<ul style="list-style-type: none">• Dynamic Assets
Learn from Teachers	<ul style="list-style-type: none">• Teaches Itself
Permanence	<ul style="list-style-type: none">• Change

CHALLENGES!!!

—

Major Challenges for Digital Learning

- ★ Resource and internet connectivity related challenges
- ★ Shortage of trained teachers.
- ★ Language and content related Challenge
- ★ Conducting Online Examinations
- ★ Preventing Unethical Practices
- ★ Literacy Gap

Ability	Rural		Urban	
	Male	Female	Male	Female
Able to operate a computer	12.6%	7%	37.5%	26.9%
Able to use internet	17.1%	8.5%	43.5%	30.1%

Source: Ministry of Statistics and Programme Implementation 2019

What is needed??



Teacher Training

To develop effective online educators

Online Assessment

New methods of online examinations at scale.

Experiential and activity-based learning

Focus on the social, affective and psychomotor dimensions of learning

Changes in Pedagogy

Planning, administration and management of entire education system

Innovative Measures

Performing arts and science practical have limitations in the online/digital education space

Key Initiatives recommended by Policy

- ★ Pilot studies for online education
 - ★ Digital infrastructure
 - ★ Online teaching platform and tools
 - ★ Content creation, digital repository, and dissemination
 - ★ Addressing the digital divide
 - ★ Virtual Labs
 - ★ Training and incentives for teachers
 - ★ Online assessment and examinations:
 - ★ Blended models of learning
 - ★ Laying down standards
-

THANK YOU

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