





Virtual National Conference on

COVID-19 AND HIGHER EDUCATION:

CHALLENGES AND RESPONSES

Organized by

Internal Quality Assurance Cell Sharda University Greater Noida, India

2 -3 JUNE 2020

PATRON

Shri. P. K. Gupta (Hon. Chancellor)

Shri Y. K. Gupta (Hon. Pro- Chancellor)

CHAIRPERSON

Prof. Sibaram Khara (Hon. Vice Chancellor)

CONVENER

Prof. V. P. S. Arora, Director IQAC

Shri Prashant Gupta

(Executive Director, SGI)

About the Conference

The outbreak of the COVID-19 pandemic has led to an unprecedented global crisis of a scale never seen before. Even the most optimistic experts predict a long road ahead. In these uncertain times, one of the biggest challenges facing humankind is how societies and institutions can adapt and sustain themselves until the virus is brought under control. In India, so far as higher education is concerned, the UGC has issued a roadmap for such institutions. The State governments and higher education institutions are advised to leverage these guidelines to formulate action plans for efficiently adapting the administration and instruction of education to a new normal. The Association of Indian Universities (AIU), one of the members of International Association of Universities (IAU), has also created a platform for Indian Universities to share the e-content, approaches and strategies adopted by them for delivery of online content to students. Whether the infrastructure of conventional universities and colleges is sufficient to achieve COVID-19 protocols such as social and physical distancing is anybody's guess. The possible ways in which the existing classrooms can be revamped to meet these challenges is still not clear. Implementation of these measures may also involve a substantial reduction in student intake as also redesign and reorientation of common infrastructure such as libraries, messes etc. To meet the short-, medium- and long-term challenges, universities of higher education need to address and mitigate these emerging issues with a clear sense of urgency. A failure to do so will not only impact the quality of education being dispensed by these bodies but will also put students at great risk.

Objective:

This conference seeks to deliberate upon challenges which have arisen as a result of the Covid-19 outbreak and also discuss practices and responses to the threat to ensure that higher education institutions can continue to perform their societal role of providing good quality education.

Programme Schedule

Day – 1 (2 nd June 2020)						
2:00 pm - 2:30 pm	Welcome Address	Prof. Sibaram Khara, Vice Chancellor, Sharda University				
2:30 pm - 3:15 pm	Keynote Address COVID-19 and Higher Education: Challenges and Responses	Prof. D. S. Chauhan Former-Vice Chancellor, UPTU/ UTU/ LPU/ JPTU/ GLA				
3:15 pm - 4:00 pm	Inaugural Address COVID-19 and Higher Education: Challenges and Responses	Prof. K.K. Aggarwal Chairman, NBA & Founder Vice Chancellor, GGU Indraprastha University, Delhi				
4:00 pm - 4:45 pm	Interactive session 1: Challenges for Higher Education Institutions post Covid 19	Prof. Vijay Gupta Prof. Emeritus, & Former Vice Chancellor Sharda University/ LPU				
Day-2 (3 rd June 2020)						
2:00 pm - 2:30 pm	Interactive session-2: Higher Education in India: Status and Issues	Prof. V. P. S. Arora , Distinguished Professor & Director, IQAC, and Former Vice Chancellor, Kumaun University, Nainital				
2:30 pm - 3:15 pm Interactive Session 3:: Online and Distance Education in Emerging Scenario		Prof. O. P. S. Negi , Vice Chancellor, Uttarakhand Open University, Haldwani				
3:15 pm - 4:00 pm	Interactive session-4: Education Roadmap post Covid 19	Mr. Lokesh Mehra , Lead Research & Development, NASSCOM				
4:00 pm - 4:45 pm	Interactive Session 5: Roadmap for Higher Education Post Covid 19	Prof. N. S. Rathore Vice Chancellor, MPUAT, Udaipur				
4:45 pm - 5:00 pm	Vote of Thanks	Prof. R. M. Mehra Prof. Emeritus, Sharda University				

ORGANISING COMMITTEE MEMBERS

- Prof. R.M. Mehra
- Dr. Mridul Dharwal
- Dr. Manish Sharma
- Dr. Dipti Parashar
- Dr. Pallavi Sharma
- Dr. Mojahidul Islam
- Ms. Divya Girdhar
- Shri Firoz Khan



EMINENT SPEAKERS



Prof. D. S. Chauhan (Former Vice Chancellor, UPTU/UTU/LPU/GLA/IPTU, and President, AU)



Prof. K. K. Aggarwal (Chairman, NBA and Founder Vice Chancellor, GGS Indra prastha University, Delhi)



Prof. N. S. Rathore (Vice Chancellor, MPUAT, Udalpur, India and Former DDG (Education), ICAR)



Prof. O. P. S. Negi (Vice Chancellor, Uttarakhand Open University)



Prof. Vij.ay Gupta (Professor Emeritus, Sharda University and Former Vice Chancellor, Sharda University/ LPU)



Prof. Sibaram Khara (Vice Chancellor, Sharda University)



Mr. Loke sh Mehra (Lead Research & Development, NASSCOM)



Prof. V. P. S. Arora (Professor Emeritus & Director, IQAC, Former Vice Chancellor, Kumaun University, Nainitr

Day-1 2 June 2020

Welcome Address



Prof. Sibaram Khara, Vice Chancellor, Sharda University

Points covered:

- Practical experience of online education during COVID-19 period.
- Online teaching-learning activities during lockdown
- Contemporary issues, Uncertainty and Challenges
- Correlation between Lockdown and economic downfall
- Economic development through education
- Readiness for Reponses
- Education 4.0

Situation before lockdown-

- Mid tem exam over,
- 50%-70% syllabus,
- mid way (labs internships, projects, industry/com munity visits
- · feedback,
- Break on 17 Mar,
- last instructional day ~30 Apr 2020

Situation in the first week of lockdown:

- Insufficient knowledge of tools,
- decide tools
- guidelines,
- monitoring
- attendance issues,
- report preparation
- (for higher education sec)

Situation till 30 Apr (till last instructional day as per calendar):

- Conduct of classes,
- tools online guizzes,
- networks issues,
- lap tops issues
- compliance report (AIU, UGC, SHES),
- · assignment,
- helplines,
- materials,
- new pedagogy,
- labs,
- internships, projects
- aligning student project works
- mentoring
- MOOCs.

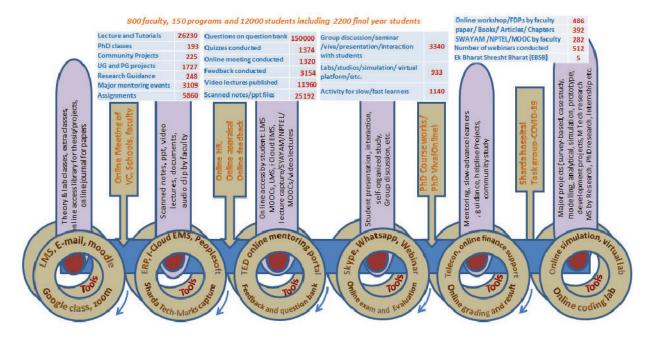
Current situation to conclude the semester/year

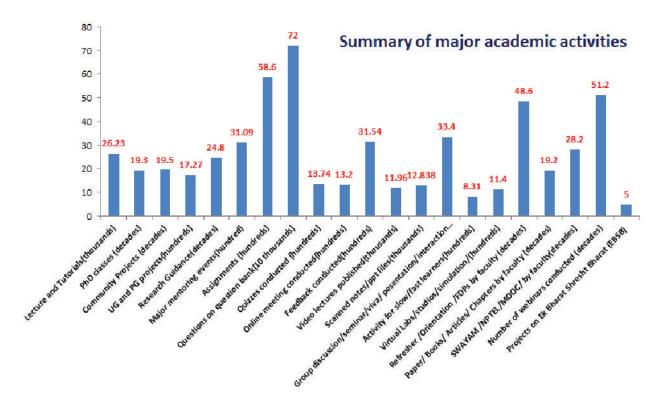
- UGC circular,
- Calendar made,
- regulatory based or council based programs,
- internal evaluation,
- red/yellow/green zones,
- multiple options for exemptionsonline/offline/pro-rata based.
- fate of foreign students,
- summer terms,
- supplementary,
- complete evaluation of labs and projects,
- preparation for next semester.

Online teaching-learning activities

University is running on-line (ICT)

(During lock-down period up to 30 Apr 2020)





Few contemporary issues, Uncertainty and Challenges

Few Uncertainty

- Student Recruitment on hold
- Deferment of joining
- Withdrawing job offers
- Lost period of March and April
- Chain effect of poor finance sectors
- Admission response
- Preparation for compliance towards regulatory bodies/accreditation agencies (FSR, performance, infrastructure, etc. (will there be relaxation?).
- Online/offline from 01 August.

Issues in August/September

- Grade improvement opportunity
- Supplementary examination.
- Facilitate for supplementary of even semester paper and its calendar (online/offline?).
- Social distancing is a big challenge if students are in campus.
- Students who do not fulfil promotion criteria shall wait till they qualify through grade improvement or supplementary examination.
- New students from 01 Sep 2020, six day week.
- Online tools for classes and examination
- Virtual labs need to be strengthened.
- Pattern of Project works shall change)

Challenges

- Manage finance for salary, maintenance, development, EMI, scholarship, etc.
- Manage the subsidy related to welfare and support to faculty and staff
- Sanitization and medical care of students and faculty
- Loan pay (EMI), Rents, hostels fees, etc.
- Foreign students (examination, admission, visa problems, etc.)
- · Placement arrangement
- Cost reduction (in infrastructure, etc.) without hampering the quality education.
- To sustain overall economic viability.

Lockdown and economic downfall

Work force in sectors

Agriculture, fishery, forestry, farming, pastoral, mining: 43%
Industry, manufacture, production, automobile, infrastructure: 25%
Service (Aviation, transport, trading and communication, restaurants, tourism, media, law)
IT, software, art & design, finance, banking, personnel, healthcare
Executives, scientists, consultant, decision makers.

- Worst hit sectors of economy in quarter Apr-Jun, 20) due to COVID-19
- Primary sectors Major in mining: GVA decaying -1.3% (GVA)
- Industry: Construction, automobile, infrastructure, real estate, MSME -17.3% (GVA)
- Service: Aviation, transport, Retails, finance, restaurants, tourism -6.3% (GVA)

Financials (Salary cut, EMI issues, loan growth, down-fall of borrower, etc.)

More automation for finance and banking to reduce manpower requiring IT skills

Industry and Automobiles (is transition from BS IV to BS VI, petrol to electric vehicle, down fall of market.

Skills for Industry 4.0 and re-use of resources for other products (multiple products)

MSME (Micro, small and medium enterprise), Entrepreneurial skills to strengthen MSME

Healthcare: Skills related to technology solutions, R & D, infrastructure and policy framing

Smart education system: Efficient networking and online evaluation tools.

Graduates must have skills to innovate ideas/plan/techniques/equipment/ Software for speedy recovery of all sectors.

Economic development through education

Education ---> skills ---> Employability ---> Entrepreneurship ---> economy

- Skills that will be relevant in future for employment and entrepreneurship.
- For employment: Explore where people will be employed and explore what skills required to be employed.
- For Entrepreneurship: Explore what entrepreneurial opportunity and explore what skills required.
- How the skills can be acquired:
 - A. Skills through education (i.e., curriculum) Programs.
 - Curriculum, recourses (human resource and lab), content delivery, projects and internships.
 - Employment skills (soft and technical skills, coding skills)
 - Skill based learning/project based learning
 - Entrepreneurship based learning.
 - B. Skills through self-study beyond curriculum.

Good number of e- content/courses/training/ internships are available for skill up gradation any time any where.

Readiness for Reponses

- Ensuring economic viability in Private University/Institution
- Better preparation for Effective implementation of online education
 - System readiness (online tools for teaching-learning and examination with integration)
 - Pedagogy for online teaching-learning (Lesson plan, content delivery, engaging students, flipped classes and innovative evaluation scheme, next practice from best practice)
 - Assessment, & evaluation of learning outcomes (rubrics for evaluation of outcomes)
 - New grading system

Creating ecosystem for skills

- Self reliant skills in Start-up India, Make in India, Digital India
- MSME skills
- Entrepreneurship skills
- Skills related to Industry 4.0, Enterprise 4.0, finance 4.0, Healthcare 4.0
 - · Sensors, networking, IOT (and industrial IOT), AI , ML and Clouds to transform existing systems.
 - · Some parts of manufacture need to renovate to orient towards smart systems.
 - Cyber-physical systems are prevalent across all industries.
 - . "Big data driven quality control", the demand for data scientists.

IOT, AI and ML becoming the tools for solution in all sectors (manufacturing, IT and finance.

The real time connection between humans, machines and smart objects

It leads to demand of Skill 4.0:

Job profile: logistics, sales, customer support, administration and management, maintenance, production planning.

Software development skills: Development and operation of software systems.

Transversal skills: Competency, interpersonal skills, creativity, entrepreneurial thinking, problem solving, conflict solving, decision making, analytical skills, research skills, efficiency

Readiness for Reponses (continued..)

- Designing the Curriculum and courses
- Identify developmental needs (in new local, regional and national developmental scenario
- · Cafeteria approach of earning credits or curriculum through CBCS
- Demand-led instead of supply-led education (in campus, out side campus, offline, online
- Any reasonable works of students can be converted to equivalent credits to encourage skills in interested area)
- Include disruptive technology
- Curriculum 4.0: In compliance of industry 4.0, enterprise 4.0, Finance 4.0, Healthcare 4.0
- · Remote learning anytime anywhere with self-paced approach (and MOOCs).
- Project based learning/experiential learning (through field visits), research based learning.
- Liberal study for both creative and analytic including multi disciplinary study.
- Community study and data analysis to predict trends building entrepreneurial thinking.
- · Skills are to be articulated for courses and curriculum in the form of outcomes.

Keynote Address

COVID-19 and Higher Education: Challenges and Responses



Prof. D. S. Chauhan
Former-Vice Chancellor, UPTU/ UTU/ LPU/ JPTU/ GLA

COVID-19 had given lots of challenges to India. If we are talking about Indian education after 1995 it's down approximately 70 % in rural area due to opening of private schools and coaching centres. Private Universities provide excellent infrastructure and giving placement of the students on the basis of their skills. UGC is the main governing body in Indian education system, and all of the affiliated Universities are primarily dependent on the guidelines issued by UGC. There is a revolution in whole world; western countries are switching over their education system on digital mode. They are conducting their teaching session online, but India is switching from offline teaching mode to online teaching mode after COVID 19. India has traditional teaching method i.e. face to face and this traditional method is more effective and cannot be replaced by any online mode of teaching. By seeing the current scenario of COVID-19, it is the demand of time that faculty has to start to learn some advance technology and concept through online courses i.e. MOOC,

NAPTEL etc. All the countries in the world have to design a curriculum to overcome such pandemic situation so that students study should not get hamper much during such condition. India have tremendous potential of MSME, but the new generations are avoiding to do the practical in laboratory, avoiding skill development and very low learning attitude. It was also demonstrated about the learning attitude and skills between new generation and old generation. It is also suggested to senior educationalist and government organization to design decides and implements the syllabus having the complete content of learning and skill development. It is mandate to put the great emphasis on the country economic growth because the potential of new generation of students has direct link with the country economic growth. Digitalization of India is moving in right direction having 70.04 % literacy rate, 42 thousand colleges and 1000 university having huge no of students are learning and developing their skill. The innovative approach through research and development is very significant in the current situation and to sustain in this industrialization war it is extremely important to upgrade. The failure of the industries is mainly because poor market response, poor marketing strategy and bank policies etc., which need to be also focused. Post COVID 19 Indian industry will grow faster and new education policies will help the students to learn and develop skill in better way. Quality education is the needs of time which provide also contribute to society.

Inaugural Address COVID-19 and Higher Education: Challenges and Responses



Prof. K.K. Aggarwal
Chairman, NBA & Founder Vice Chancellor, GGU Indraprastha
University, Delhi

COVID 19 is a disruption and probably a largest disruption in the history of India, and most of the countries all over the world are affected. There is very high level of impact on higher education especially in India only due to COVID 19. One of another phase of this disruption is also which created good environment in higher educational institutions and handle the online classes, research etc. in excellent manner. Now, as per the situation, the education system has to be very much flexible about curriculum design, development and implementation. One of the examples of Indian Railway which show the utilization of their resources and converts the train bogy into treatment cell for COVID 19 patient in

such pandemic situation. Such type of innovation plays an important role to motivate the associate people and help them to fight with the current

pandemic. It is expected to do the more innovation by thinking big and more productive.

The online education would be alternative medium of education but cannot be only way of education, this is a temporary solution especially more problematic in technical courses e.g. Medical. Dental, Engineering, Pharmacy etc. where courses are based on more practical. In technical courses some part especially theory can be explained by online mode but practical would be possible only after lockdown.

The analysis of the effectiveness of the online and offline mode is very significant because the students cannot be attentive more than 20-25 minutes on online mode as compared to 45 minutes in offline mode. For online mode of teaching, learning and research Processes University have to develop three times infrastructure as compared to offline teaching. The interdisciplinary research project should be the part of the curriculum to give wide knowledge about the own subject as well as to get familiar with the knowledge of others subject also. The enhancement of the fundamental knowledge is very important which always motivate to handle the worst situation and give strength to solve the problem.

Interactive session Challenges for Higher Education Institutions post COVID- 19



Prof. Vijay Gupta
Prof. Emeritus, & Former Vice Chancellor Sharda University/ LPU

Due to COVID-19, approximately 1,190,287,189 students get affected which is around 68% of the total enrolled learners; from 150 country-wide closures. This critical situation develops the disruption in students' future careers as well as impacts the whole academic institutions in terms of next year admissions and future prestige of academes. We are expecting and seeing with hope towards the on-line instructions using various digital platforms which can provide the quick solutions. While it is true that there had been a groundswell of on-line education in many MOOC platforms that MHRD has been pushing for some time now, the adoption in formal education has been very slow. It has not yet been seen that on-line educations solve the problem. The major difference can be observed in case of a child learning while listening to a lecture on a

computer screen as much as does in a class-room? Not sure. Like a TV screen, a computer screen is a cold medium. However, with closure of institutions in March, there was an immediate rush to deliver something, anything. Zoom took over Education in India. There appears to be very little attempt at training in pedagogies for on-line instructions, even on how we can use Zoom for better results in teaching. Two major unresolved issues are still available i.e. Attendance and Evaluation.

E-Learning Framework

- · Ensuring Access: Digital divide
 - Devices
 - Broadband
- Common Services

•	Using	library	resources remotely	63%

Consulting with faculty remotely 58%

Accessing learning material 69%

Collaborating with others remotely.

E-Learning Framework

Adoption of Student Success Technologies

	On-line	mentoring	system	20%
*	On-line	mentoring	system	209

- Information systems queries, FAQs, etc. 62%
- Tools to create student success metrics 16%
- Formal feedback system. A dashboard 16% where a student can see her progress

Equity

What we are learning during the pandemic is that residential education can act (if imperfectly and unevenly) to normalize at least some aspects of the college experience.

While the success in college is not randomly distributed, with students from more privileged backgrounds retaining many advantages across measures of student, it is also true that residential education does create some opportunity for success that may not be available to in their home lives.

https://www.insidehighered.com/blogs/learninginnovation/challenge-equity-higher-education-under-covid-19

Equity

Students from less privileged backgrounds might not come to campus with the advantages of years of tutoring or access to resources from well-funded secondary schools, but the experience of being an college student offers some consistency of opportunity that may not necessarily be available to all students at home.

Students from across the socioeconomic spectrum attend class in the same classrooms, study in the same library and work out in the same athletic center. Wealthier students may have newer computers than their less well-off peers, but everyone logs in to the same Wi-Fi.

Equity: Ability to pay

With gross disruption of economic activities, would many students be able to afford education.

While it is true that education is the last item in most middle class parent's platter to be compromised with, yet we are not sure that many of them have not reached that point, at least in near term.

Place

 Do we need all students, academic staff and nonacademic staff on campus?

Non-academic staff: With ERP having been firmly implemented at least in big universities, functions like registry, accounts, HR Academic support, IT support can all be performed remotely.

 Block Plan: Students take one course at a time during much shorter (three or four weeks) sessions or blocks, run consecutively for the entire semester. The advantage, besides an interesting and intensive pedagogy, is flexibility. If something were to change in the situation related to the pandemic, such as a new second wave of infections, schools could more easily pivot to remote or face-to-face learning at breaks between blocks

Place

Students: There are various models that can be considered:

- Most instructions will be remote
- Recognizing the importance of the first year of the transition to college, this plan brings only first-year students to campus in the August. First-year students learn in residential classes, while also participating in a full range of campus-based orientation and social-connecting exercises.
- Targeted curriculum: Reduce the number of courses being offered to limit on campus density and to prioritize support resources. A variety of ways of doing this, including focusing on core courses or signature experience courses, Courses that are not part of the targeted pool are taught online.

What it all means for colleges?

- Lower enrollment
- · Lower fee collections
- · Lower consultancy incomes
- Higher costs IT infrastructure, streaming capabilities, cloud storage, new apps
- · Restructuring classroom and residential spaces.

Day-2 (3rd June 2020)

Interactive session-2: Higher Education in India: Status and Issues



Prof. V. P. S. Arora Distinguished Professor & Director, IQAC, and Former Vice Chancellor, Kumaun University, Nainital

Swami Vivekananda

"Education is the manifestation of the perfection already in man"



The Aim of Education

"The aim of education is not the acquisition of information, although important, or acquisition of technical skills, though essential in modern society, but the development of that bent of mind, that attitude of reason, that Spirit of democracy which will make us responsible citizens."

Dr. Sarvepalli Radhakrishnan

Education as Social Action

Education is the key to empowering underprivileged groups in order to overcome poverty and to ensure equitable development.

Source: Ashok Swain, Introduction, Education as Social Action (2004)

History

- Guru- Shishya parampara (Takshashila, Nalanda, Vikramashila, Vallabhi, Kanchi, Nadia)
- Dr Radhakrishnan Commission -1948
- Second Education Commission-1964
- National Education Policy-1968
- National Education Policy- 1986
- Ramamurthy Committee- 1990
- Yashpal Committee 2008
- National Education Policy- 2019

- India has a rich heritage of qualitative higher education.
- Ancient universities of Takshila and Nalanda stand testimony to the wisdom, ethos and beliefs of our forefathers.
- Highest learning in the form of Bhagwadgita, Vedas, Upnishads, Yoga, and Meditation are still the source of greatest inspiration to whole of the mankind.

The great spiritual teachers and scholars like Adi Sahnkracharya, Kautiliya, Chanakya, and Aryabhatt who influenced the world through their scientific acumen and human values are also the products of traditional institutions of higher learning

Scenario

GER (India): 26.3

GER (USA): 83.0

Disparities- Gender, Region, Socio Economic Class, Rural- Urban

In 1950 India

• Universities: 20

• Colleges: 500

• Students: 2,63,000

Universities and Colleges: (01.02.2020)

Central University: 50
 State University: 409

State Private University: 349

Deemed University: 127

• Institutions of National Importance: 95

• Colleges: 41935

Students Enrolled: 373.99 lakh

In the Year 2018-19

Of the total students enrolled (37399388)

- •79.76% were in Graduate Programs
- •10.87% were in Masters' Programs
- •8.26% were in PG Diploma/ Diploma/Certificate
- •00.64% were in Integrated Programs
- •0.45% were in PhD Programs
- •00.08% were in M Phil Programs
- •48.63% were women

Source: AISHE Report 2018-19

Paradigm Shift In Indian Education

- Indian economy has witnessed number of significant changes over last couple of decades, impacting the people in all walks of their life.
- The life style of the people, the way they think, expectations they have, the
 way they learn, the way they choose their careers, and the way they earn
 and invest all stand influenced on account of changes that have occurred
 during this period.
- Consequently the education scenario in the country is also undergoing rapid changes. COVID 19 will fasten the Changes.

Drivers of Change

- Rapid economic growth resulting in enhanced purchasing power and surging options to choose from
- Emergence of Knowledge Economy
- Expansion of communication and educational infrastructure.
- Liberalization of Regulatory System
- Trends of Accreditations and Ranking of Educational Institutions from domestic to global.
- Realization of Poor Standard of academic Research
- · Growing urge to retain the best faculty in colleges.

Forces of Change

A Changing World

- The Knowledge Explosion
- Globalization
- High Performance Workplace
- Diversity
- Technological Change
- Knowledge Transfer

Forces on the University

- Economics
- Societal Needs
- Technology
- Markets

- Evolution?
- Revolution?
- · Extinction?

Emerging Trends

- Massification of Higher Education
- Private Sector has become Key Player
- Management of Education
- Indian Model of University Industry Linkages
- Expanding Horizons of Higher Education

Private Sector In Education

- A sunrise sector for private investment
- Particularly in higher education segment
- Stifling regulatory overhang
- Multiplicity of approval regimes and tyranny of approving agencies
- Multiplicity of statutory bodies

Expanding Horizon

- Emergence of Professional education,
- Good Education Practices in conventional programs
- Vocational and Skill oriented programs and courses
- Adoption of CBCS
- UIL Programs

Characteristics of Students

Yesteryear's Student

- Slide rule
- Typewriter
- Warning bell for right margin
- · Manual movement of carriage
- · Smell of ditto ink
- Classroom technology
- Movie Projector
- ☐ Slide Projector
- Overhead Projector

Today's Student

- Graphing calculator
- · Computer literate
- Cellular phone
- □ Talking
- Messaging
- Classroom technology
- □ Internet
- Multimedia training
- □ E-mail
- Online Classes

Issues

1. Distances and Disconnects

- Invisible walls (aspirations of students and expectations of teachers)
- Divide between Universities and research bodies
- Isolation and Dilution of premier institutions like IITs and IIMs
- Erosion of democratic space

Issues

2. Architecture of Learning

- Curriculum Issues and Syllabus making
- Learning across disciplines
- Teacher Education
- Rehabilitating professional education in Universities
- Undermining undergraduate education
- Performance criteria

Issues

3. Structure, Expansion, and Access

- State Universities and Affiliated Colleges
- Growth of private sector education providers
- Issues of Affordability
- Resources Management and Financing

Issues

- 4. Governance and Autonomy
- Poor governance of Universities
- · Interference in Universities: Loss of Autonomy
- Subversion from within
- 5. Multiplicity of Regulatory System

Quality in Education

The parameters of quality up scaling of professional educational institutions can be traced in the input, process, enabling environment, as well as in output as follows.

- •Inputs (quality of students and faculty)
- Process (admission, instruction, examination, research, promotions, linkages, ----)
- Facilities (infrastructure, class rooms, hostels, library, capacity building, sports, cultural,)
- Output (graduates, placement, publications, patents, FDPs, MDPs, awards, recognitions.....)
- Governance (administration, monitoring, facilitation, policies,.....)

Challenges for Existing Institutions

- Desire to be world class
- Change in Faculty mind set
- Compensation during and after capacity building activity
- Urge for research publications
- Attracting students (domestic as well as foreign)
- Quality support staff
- Financial resources

Need For Innovations In Higher Learning

- The system of higher learning could only be vibrant and productive if it grows along with time.
- Nowadays the manpower requirement of the society is taking different shapes due to regular technological breakthroughs and emerging market forces.
- New employment opportunities are emerging assuring greater growth potential in near future.

Need For Innovations In Higher Learning...

- The global competition is also making its strong impact.
- Our system of higher education must therefore gear up for the generation of skilled manpower which can competitively meet challenges of the world and can draw maximum benefits from this era of globalization.

4 PILLARS OF EDUCATION

- Learning to know
- · Learning to do
- Learning to live together
- · Learning to be

Issues that Emerged Due to COVID-19

- Infrastructure norms
- Balance between physical and online instructions
- Class size and hence admission capacity
- Economics of higher education
- SOP for conduct, process, and declare examination results

Interactive session-3: Online and Distance Education in Emerging Scenario



Prof. O. P. S. Negi Vice Chancellor, Uttarakhand Open University, Haldwani

Need of Distance Education

- "The chief cause of India's ruin has been the monopolizing of its education and grabbing of the land by a handful of men. If we are to rise again, we shall have to do it by spreading education among the masses." – Swami Vivekananda
- 2. "Indian Education needs a drastic reconstruction; almost a revolution". -Kothari

Commission

- •Kotahri Commission report suggested alternative approach of providing education through Correspondence Courses.
- Distance Education for higher education in India was initiated in the form of Correspondence Courses in 1962.
- •But this did not receive the attention that it deserved and in general it was recognized as a less creditable system than the conventional system.

Correspondence education: This is a teaching-learning situation where learners are found in a distant place, there were no face-to-face interaction existing between teachers and learners.



Learners receive the study materials from the institutions through postal services.
 In this case, print is the only medium of instruction and printed lessons are the only source for the learner to learn.

The Concept of Open and Distance Learning

Definitions:

- There is no one definition of open and distance learning.
- •Rather, there are many approaches to defining the term
- Most definitions, however, pay attention to the following characteristics:
 - separation of teacher and learner in time or place, or in both time and place;

2. Institutional accreditation:

- That is, learning is accredited or certified by some institution or agency.
- This type of learning is distinct from learning through your own effort without the official recognition of a learning institution;
- Use of mixed-media courseware, including print, radio, and television broad casts, video and audio cassettes, computer-based learning, and tele-communications.
- Courseware tends to be pre-tested and validated before use.

3. Two-way communication:

- Allows learners and tutors to interact as distinguished from the passive receipt of broadcast signals.
- Communication can be synchronous or asynchronous;
- Possibility of face-to-face meetings for tutorials,
 Learner-learner interaction,
 - Library study, and laboratory or practice sessions;
 and

5. Use of industrialized processes:

- · That is, in large-scale open and distance learning
- Operations, labor is divided and tasks are assigned to various staff who work together in course development teams.

Overcoming physical distance:

Open and distance learning can overcome problems of physical distance for:

- Learners in remote locations who are unable or unwilling to physically attend a campus; and
- Learners and teachers geographically separated in that teachers in urban settings instruct learners in rural settings.

7. Solving time or scheduling problems:

Open and distance learning can solve time or scheduling for:

- Client groups unwilling or unable to Assemble together frequently;
- Learners engaged in full-time or part-timework, both waged and volunteer; and
- · Family and community commitments.

8. Expanding the limited number of places available:

Open and distance learning can expand the limited number of places available for:

- · Campus-based institutions few in number; and
- Stringent entrance requirements

9. Accommodating low or dispersed enrolments:

Open and distance learning can accommodate:

- · Low enrolments over a long period of time; and
- Low enrolments in one geographic region but additional enrolments elsewhere.

10. Making best use of the limited number of teachers available:

Open and distance learning can make the best use of the few teachers available when:

- . There is a lack of trained teaching personnel relative to demand;
- · Teachers are geographically concentrated;
- · Teachers with certain expertise are in short supply.

11. Dealing with cultural, religious, and political considerations

- Open and distance learning can deal with differences, and consequently: widens women's opportunities to learn;
- meets the needs of populations affected by violence, war, or displacement; and
- makes learning possible even when group assemblies are proscribed.

Functions of open and distance learning-Delivering programmes and courses

- Two-way communication required;
- •Evaluation and feedback:
- Collaboration with other agencies;
- · Library services; and record systems.
- · Providing learner support, personal support such as advice or counseling;
- Academic support such as tutoring, grading, and examining; and face-toface or mediated support.
- Examining, crediting, and granting credentials
- Range of credit options available;
- · Exam taking and credit evaluation requirements; and
- Involvement of professional associations and external agencies,
- · Evaluating and revising process, procedures, programmes, and courses
- Learner performance;
- · Learner satisfaction;
- · Meeting goals and objectives; and
- Resistance to change.

Functions of Open and Distance Learning

- Developing or acquiring programmes and courses
- Considerable development time required for full-scale development and production;
- Buying or leasing courses from other open and distance learning providers may be more effective use of resources; and
- Continuum of approaches, from single author to large teams of specialists
- · Analyze and assess the needs of prospective learner populations;
- Make information available at right place and right time;
- Provide sufficient accurate information about time, cost, and effort required;
- Provide sufficient accurate information about when, where, and how to get involved; and reassure potential learners about legitimacy and credibility
- · Physically producing, reproducing, storing, and disseminating materials
- Course materials requirements may demand print, audio, video, or computer software; dissemination may require post, courier, transport companies, telecommunications, broadcasts, or satellites;
- Physical production and reproduction time consuming; and specialized equipment and personnel required for storage, handling, packaging, dispatch, and inventory.
- Enrolling and registering: process varies from simple manual lists to complex electronic systems; fixed or rolling entrance dates; and range of delivery options available.

Types ("Generations") of Distance Education and Major Examples of Each

Types of Distance Education	Examples		
Correspondence model	Print		
Audio-based models	Broadcast: IRI Narrowcast: IAI (via audio tape or CDs) Two-way radio Audio conferencing and telephone Broadcast radio		
Televisual models	Broadcast television (educational and instructional) Videoconferencing Video		
Computer-based multimedia models	Interactive video (disc and tape) CD-ROMs Digital videodiscs (DVDs/VCDs) Interactive multimedia		
Web-based models	Computer-mediated communication Internet-based access to World Wide Web resources Online courses (e-learning) Online conferences (webcasts and webinars) Virtual classes/schools (cyber schools) and universities		
Mobile models	Hand-held devices Portable media players (podcasting) Cell phones and smart phones Tablets E-readers		

Few Pertinent Questions on Distance Education

- 1. Are courses under distance mode equally beneficial in imparting knowledge and skills like regular mode education?
- 2. Do students face any challenge in getting the study materials and understanding the contents without personal contact support?
- 3. Does on-line mode of education facilitate education for socioeconomically backward students from rural areas?
- 4. Are study materials developed by different institutes up-dated and student friendly?
- 5. Are common people aware of the government circular about equal weight age of distance mode education?
- 6. Are students from rural background benefitted by distance mode of education?
- 7. How to motivate the students under distance mode in taking their studies seriously?
- 8. Is there any social stigma attached with courses under distance mode?
- 9. Do examination and evaluation of answer scripts of courses under distance mode carried out with equal seriousness like regular mode education?
- 10. Do students with distance educational background enjoy equal opportunity in job selection and career growth both in public and private sectors?
- 11. Is it necessary to monitor and evaluate courses under distance mode periodically?

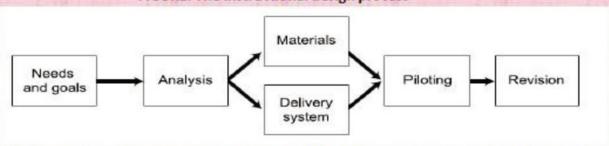
Major Practical issues that influence Distance Learning

- The major practical issues that influence DLS can be classified as following:
- 1.Separation of teacher and learner for the majority of each instructional process
- 2.Use of educational media to unite teacher and learner and carry course contents
- 3.Provision of two-way communication between teacher, tutor or educational agency and the learner.

The Instructional Design

 Instructional design is thus a process that works in a systematic way to translate learners' needs and goals into successful learning.

FIGURE: The instructional design process



- In F2F system, the classroom-based teaching, the basic resource is the teacher and he/she remains the central component and performs the functions.
- In distance learning, there is no teacher. The system is Learner's centric.
- The teacher is replaced by a combination of learning materials and tutors.
- Because tutors are expensive and because distance learners mostly study at home, the tutors are only involved with learners for short periods.
- So the instructional design the process which identifies the learners' needs and goals and the learning materials are created to meet those goals.

Classification of Educational Delivery System

- 1. Synchronous: This system requires the simultaneous participation of students and instructors
- The advantage with the synchronous instruction primarily lies in its interaction with "real time", with delivery via interactive TV, computer conferencing, IRC, audio graphics, and MOOC.
- 2. Asynchronous: implies participation at different times.
- This system does not require the simultaneous participation of all students and instructors, students need not to be gathered together in the same location or at the same time. This gives the flexibility to the students in choosing the instructional time frame and gathering their learning materials according to their schedules

Overall, asynchronous instruction is more efficient than synchronous instructions in the following ways:

- Telecommunication: Facilities such as Telecommunication technology helpful in the urban Development.
- Delivery modes: Delivery modes such as e-mail, audiocassette, and videotape courses have more human appeal.
- Flexibility: Students decide their instructional time and schedule for receiving their learning materials.
- d) Parallel interaction: Students respond independently, as when using e-mail.

Asynchronous Instruction

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WHAT IS ODL?

- Open and distance learning (ODL) combines two forms of education –
 open and distance that focus on expanding access to learning.
- It is characterised by two factors: its philosophy and its use of technology.
- · Most ODL systems have a philosophy that aims to:
 - · remove barriers to education, and
 - allow students to study what they want, when they want and where they want.

In short, ODL is about increasing educational access and increasing educational choice.

ODL systems typically use technology to mediate learning, for example:

- printed workbooks
- audio cassettes
- radio
- · the web.

(ODL) System- An Emerging Trend and Reality in the field of Education

- · The ODL is a new paradigm with some elements of shift such as:
- From classroom to anywhere.
- · From teacher centric to learner centric.
- · From teacher as an instructor to teacher as a facilitator.
- From mainly oral instructions to technology aided instructions.
- From fixed time to anytime learning.
- · From you learn what we offer to we offer what you want to learn.
- From education as one time activity to education as lifelong activity.
- ODL provides a viable alternative mode of education to the door steps of the learner, enhancing social equity, and creating flexibility for lifelong learning.
- It is the distance education in the form of correspondence education started with the following objectives:
- To provide an efficient and less expensive method of educational instruction at higher education level in the context of national development in India,
- To provide facilities to pursue higher education to all qualified and willing persons
 who have failed to join regular university courses due to personal and economic
 reasons or because of their inability to get admission to a regular college, and
- To provide opportunities of academic pursuits to educate citizens to improve their standard of knowledge and learning through correspondence instruction without disturbing their present employment. Conventional Universities are referred to as 'Universities within the walls'. Open Universities are without Walls

Distance and E-Learning (ODL) in the Digital Age

- · From place to virtual space: diminishing the constraints of place and time
- · Student support in ODL. The tutor's role therein.
- Drop-out and ODL
- Reforming student support in the digital age
- Third generation distance education: the integration of student support with teaching
- The impact of ICT has profound implications for the integration of teaching and student support.
- The advent of the web permits a whole range of innovative and supportive teaching approaches, pioneered in computer-mediated conferencing
- · In addition the affordances of the web permit:
- The use of video embedded in course materials, supporting a wider range of learning styles and being effectively integrated with teaching and assessment;
- The development of computer-based conferencing beyond text to include oral and visual dimensions, invaluable in, for example, language teaching and practice-based programmes;
- The development of virtual scenarios, including science laboratories and health settings, to support real-life skills taught at a distance;
- The development for the first time of team and presentation skills in distance and e-learning environments. These skills are needed for remote use in many professional contexts;
- The creation by students of social media such as wikis, blogs, podcasts, and videos, and the
 use of peer-to-peer learning.
- Open and distance education modes of delivery and learning/teaching were designed to
 offer maximum flexibility for the educational needs of the target learners'

Major Initiatives for ODL

- Q- How to minimize the gap between the ODL and the classroom learning?

 Ans.: The following are few recommendations, which give aid to achieve this target.
- 1. In the ODL, one should increase the frequency of the contact hours .
- One should also decrease the number of examinations and encourage more take home assignments during the course of ODL.
- In a regular classroom teaching, one is encouraged to explain the concepts with real world examples, whereas in ODL it is worth explaining the examples prior to the concepts.
- This is especially with a view to fix the student motivation and encourage for the higher studies.
- In a regular classroom scene, the student is free to meet the teacher during the non-office hours as well, based on a prior appointment from the teacher.
- In ODL one can provide this facility by connectivity to the faculty cell phones for his appointment.
- The ODL student is encouraged more towards self-dependency. This will encourage self-motivation/confidence within the student community

COVID-19 and Need of Online Learning

- F2F Education needs the physical presence of teachers and students in the same space at the same time.
- More than 90 per cent of the world's student population in F2F mode is out of school due to the COVID-19 pandemic and lockdown in most of the countries.
- The recent closure of campuses due to the COVID-19 pandemic highlighted a challenge that has existed for many years.
- Distance and online learning have become the only means for educational institutions to keep the doors of learning open.
- This is because distance education (DE) does not require teachers and students to be in the same place at the same time for learning to happen.
- Because learners and teachers are separated by time and space, some kind of technology or media must be used for communication between them.
- Learners receive self-learning materials in various formats print, audio, video and computer – and are provided ongoing tutorial support with optional face-to-face interaction.
- DE embraces a range of possibilities from offline (print only) to fully online provision, and a blend of both.
- · Recently, the term 'remote learning' has come into wide use.
- Remote learning is an emergency measure which attempts to replicate the classroom teaching and learning process in an online mode (On Line Education) and can also be considered a form of Distance Education.

What is online education?

Computer-based training, Web-based training, Internet based training, online training, e-learning (electronic learning), m-learning (mobile learning), computer-aided distance education - online education has gained importance today scenario covid-19.

Definition:

"Online education is electronically supported learning that relies on the Internet for teacher/student interaction and the distribution of study materials."

- This definition comes an almost infinite number of ways to teach and learn outside of traditional classrooms and away from campuses.
- With online education, students can turn anywhere with Internet access and electricity into a classroom.
- It can include audio, video, text, animations, virtual training environments and live chats with teachers.
- It has a rich learning environment with much more flexibility than a traditional classroom.
- It is a kind of Open and Distance Learning (ODL).

Online Education Programs

100% Online Education - Fully-online degrees are earned from the comfort of your own home with no required visits to college/ campus.

Hybrid Education - Hybrid education allows students to pursue a combination of online and on-campus courses.

Online Courses - While online courses may be part of a degree program, they can also be taken on their own in order to master a certain subject or learn a specific skill.

MOOCs - MOOCs, or massive open online courses, are usually delivered in lecture form to online "classrooms" with as many as 10,000 people.

Distance Education as an Appropriate Innovation

- DE as an innovation in education has evolved to serve the needs of different contexts and constituencies.
- During COVID-19 pandemic, DE allows learning to continue while observing travel restrictions along with Social and physical distancing requirements.
- The social mission of education has been central to DE which has always catered to marginalised students and those in remote locations.
- As an innovation, it is built around sound pedagogical principles and leverages the power of technologies.
- With advances in technology, Massive Open Online Courses (MOOCs), which is
- another form of DE, have become popular.
- Common Wealth of Learning (COL) MOOC for Development provides simple technology solutions such as a basic mobile phone interface, social media integration and delivery in low bandwidth situations to reach grassroots communities.

Lessons from the COVID-19 Pandemic: COL Report

- It is necessary to build resilience in education systems by strengthening capabilities for responding to various crises and having the ability to implement them quickly.
- Responses to crises must avoid exacerbating existing educational disparities.
- High-achieving educational systems are usually better at countering inequalities.
- We can extend equality of access and create reservoirs of resilience by having open and distance learning (ODL) arrangements in place.
- Teaching and learning require both interactive and independent activities. A
 resilient system blends these components of education in different ways as
 necessary.
- The importance of access to learning materials cannot be over-emphasised. Open Educational Resources can assist in making these accessible to all learners.
- Curriculum development for crises should start with designing the student assessments. This clarifies learning objectives and content, providing consistency and efficiency.
- Teacher training and professional development should include scenarios for coping with crises.
- Available different technological systems may be used in a crisis, requires a coordinated approach for deploying resources and monitoring progress.
- Crises are anxious times for students and parents. Reassuring them with targeted communication must be a priority.

Tips for Providing Remote Learning

- Assess the capabilities of students, teachers, and infrastructure to adopt high-technology and low-technology solutions.
- Explore various options for distance learning tools including: online virtual lessons, downloadable lessons, MOOCs, mobile-phone and social media blasts, accessible material for students for example using screen readers
- · Radio and television programs useful in particular for younger students and their caregivers.
- Prioritize subjects and grades that are associated with exams that are perceived as high stakes by parents (if possible)
- Train teachers how to instruct and engage all students through distance learning tools.
- Prioritize subjects and grades that are associated with exams that are perceived as high stakes by parents (if possible)
- . Train teachers how to instruct and engage all students through distance learning tools.
- Appreciate that distance learning is not interactive and work within that framework. Keep time and track of student engagement, possibly through Whats App groups.
- Blend appropriate approaches and limit the number of applications and platforms. Not all tools are adaptable to all country contexts.
- Emphasize tools that are compatible with smart phones as they might be more widely available
- Engage in agreements with telecoms to eliminate cost of accessing resources for MoE sites.
- Create support communities among teachers and students to cross-reference questions and solutions.
- Ensure accessibility and availability of education services for students with disabilities.

Distance Learning Contributes to Resilience:

- ACCESS: ODL accommodates large numbers of learners at low unit cost. Open schools and open universities reach millions of learners without constraints of place and time.
- COST: In open institutions costs per student can vary from one third to one half of those of classroom instruction – with comparable results.
- QUALITY: Research shows no significant difference of learning outcomes between ODL and traditional classroom instruction.
- INCLUSION: Persons with disabilities often prefer ODL because it is flexible, affordable, and offers the anonymity of studying at home.
- ECOLOGY: The environmental impact of ODL is one-third that of face-to-face teaching

Quality in Open and Distance Learning

- Different perspectives on quality
- 1. Quality from the learner's perspective:
 - Meets learners' needs:
 - · acceptance of qualification (brand name?) get jobs
 - clear what program gives and delivers on it
 - · good service: learner focused, convenient, flexible

But: students don't know what they don't know

- 2. Quality from the provider's perspective:
 - a. Content,
 - b. Instructional design
 - c. Media production
 - d. Delivery of teaching
 - e. Student administration
 - f. Cost-effective management
- 3. Quality management of distance education; Why is this an issue?
 - Priorities and new developments
 - Liaison with academics
 - Choice of platform/standards (learning objects)
 - HR policies (faculty/support staff)
 - Intellectual property
 - Co-ordination and communication
 - In the end: quality needs to be assessed by measuring what students have learned.

Blended Learning

- An ideal situation would have been where the Conventional System and ODL System should have grown with same pace competing, complementing and supplementing each other for the benefit of the learners. Need of Blended learning:
- Blended Learning
- Is a blend of face-to-face instruction and online learning &distance learning
- "A formal education programme in which a student learns at least in part through online learning, with some element of student control over time, place, path, and/or pace; at least in part in a supervised brick-and-mortar location away from home; and the modalities along each student's learning path within a course or subject are connected to provide an integrated learning experience"
- "the organic integration of thoughtfully selected and complementary face-to-face and online approaches"

Summary and Conclusion

- ODL system is being adopted throughout the world as an important tool to ensure access, equity and quality in the field of education. In this system, the students are free to learn at their
- own pace and convenience while being away from the institution.
- ODL in recent times has thus emerged as an alternative mode for higher education all over the world especially in developing country like India.
- 3. Presently in India, there are, IGNOU, 14 State open universities and 200 other institutions imparting distance education through ODL.
- 4. ODL system has revolutionized the present mode of education
- 5. The growing population of a country demands a system of education which can bring learning to the door step, so that the percentage of the population living in the remote areas, working in the offices and involved in business and agriculture may be benefited.
- 5. The women can also take advantage of this system even when they are leading a domestic life. In short, the percentage of the population which cannot be benefited by the conventional
- educational system can be benefited by the ODL system.
- 6. The ODL system of education is a new phenomenon which helps people in achieving higher education without any formality of attending regular classes like that in the conventional educational system.
- 7. The University which imparts distance learning can be considered as 'University without walls or boarder'.
- Require: Blended Learning and integration of ODL with online learning.

Interactive session-4: Education Roadmap post COVID 19



Mr. Lokesh Mehra Lead Research & Development, NASSCOM

NASSCOM: Who we are & What we do?



NASSCOM[®]

SSC NASSCOM: Why we do it?



Growth in India's workingage population 26 Million Agricultural Workers

Replaced during 2014-2017 due to Automation

47 Percent
Engineering Graduates

Are Employable according to studies. 63 Percent

From Indian B Schools are unemployable (bottom 80% of each class)

75 Million

133 Million

India's current education and training ecosystem is not reflective of changing industry needs, which risks creating a large number of educated but unemployable job seekers.

Sources: WEF Report | MEITY Report on India's Trillion Dollar Digital Opportunity

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Matter of Concern

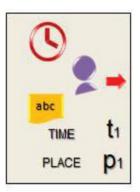
- 150 crore students affected by School/College closure due to Covid 19 pandemic
 70% of the world student population
- Around 6.3 crore teachers affected in 165 countries
- · 43% of young people have no access to Internet at home
- All students and teachers are not "digitally literate"
- Some courses require only physical classroom

As per UNESCO - March 27, 2020

However we have a better future

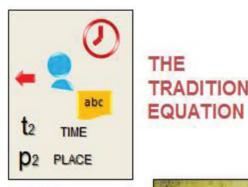
India is one of the Top Nations in Internet Accessibility

- 565 million Internet users in India (20% rural). 2nd to China, CAGR 38%
- · 97% users mobile phone as one of the devices to access Internet
- 93% Indian HE students access Internet daily with 73% using mobile phones



You have the time and place of the teacher

Teacher



THE

TRADITIONAL

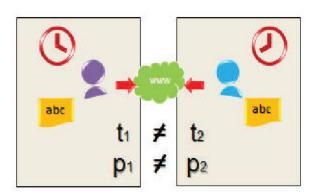
And the time and place of the student

Student

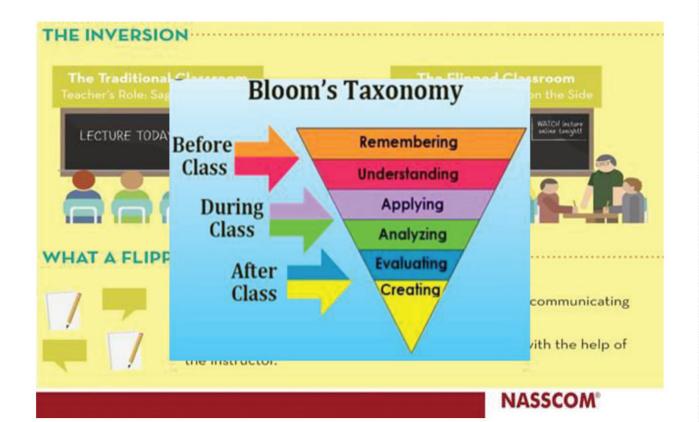


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Virtual Education



In virtual education times or places can be different



Internet Bandwidth

Non availability of Adequate Resources

Classroom Management

Lack of knowledge of various collaboration Tools

Assessing students

What Content

Time Management

Keeping students motivated & engaged

Plagiarism Values, Ethos

Feedback

Offline activities

Content Creation

Resolving doubts

Parents involvement

Delivery Tools

Information v/s Knowledge

Data Security

Screen Time

Analytical Skills

Means

to track learning & understanding

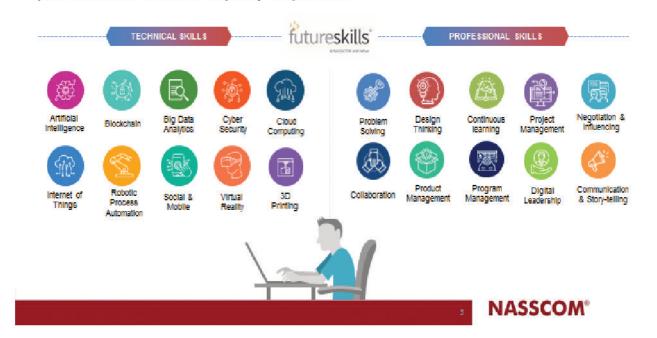
Challenges



Platforms for Online Video Conferencing

Platfornis for Offiline video Conferencing						
Company	# Participants	Time Limit	Chat Feature	Screen Sharing /Recording	Cost	
Skype	50	24 hours	Yes	Yes	Free	
Microsoft Teams	10,000	No	Yes	Yes	\$8-\$35/month	
Google Meet	250	No	Yes	Yes	Free until Sept.	
Zoom	100	40 min	Yes	Yes	Free	
Cisco Webex	100	No	Yes	Free	Free	
Go to Meeting	3	40 min	Yes	Free	Free	
10 NASSC					OW.	

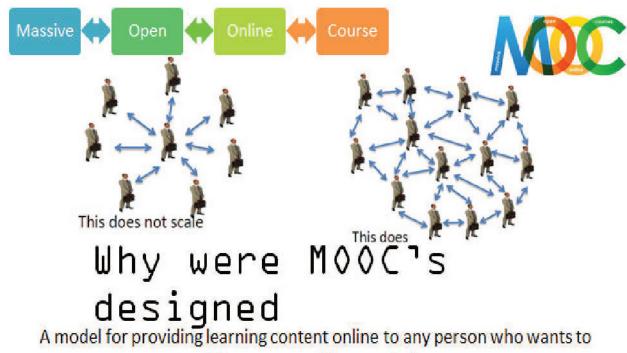
TECHNICAL SKILLS ARE CRITICAL, but building professional skills is equally important



Current Assessment Delivery Mechanism

- Assessments are delivered in Batches
- □ Assessments can be conducted Online





take a course with no restrain

Advantages of MOOCs	Disadvantages
Accessibility	Internet Connectivity
Anytime anywhere learning	Lack of individual instruction
Cost	Performance and Plagiarism
Student Engagement	Language/Different readiness
Lifelong Learning Experience	Accreditation
Analytics	Administration
Cross Collaboration	Majority of enrolled already a graduate

































MOOC Implementation Models

Flipped Classroom Model

- Complements traditional F2F
- Univ. handles all student interactions
- Provider provides platform, dev., support & training

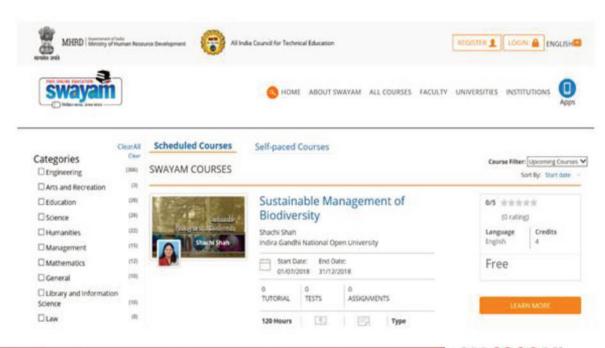
Free MOOC Model

- Univ. decides to host a free MOOC
- Provider provides platform, support & training

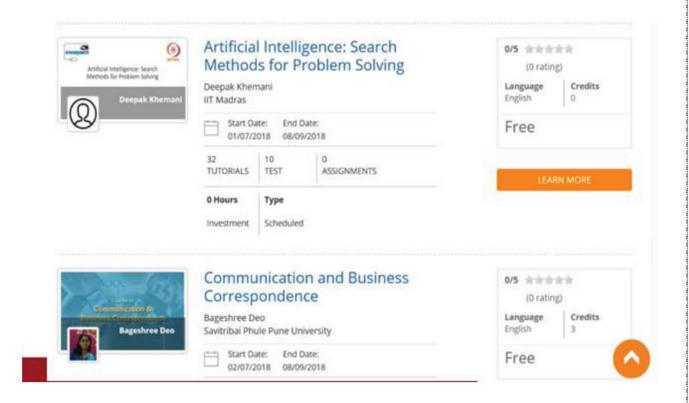
Freemium/Paid Model

- Provider provides a free sample or fully paid MOOC on Univ. behalf
- Univ. provides base content & provider enhances it
- Provider responsibility student acquisition & MOOC delivery

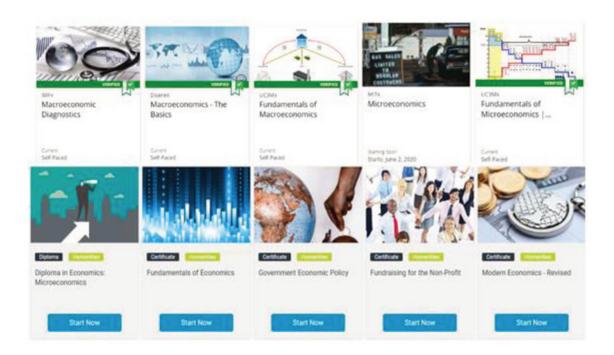
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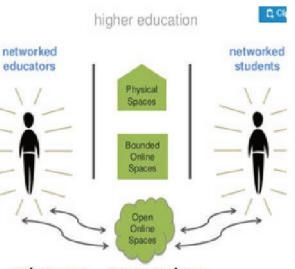


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Elements of OER

- Digital
- · Online
- Free of charge
- · Free of copyright
- · Free of Licensing restr
- · Could be Course, Syllabi, Videos, Learning objects, Rubrics, etc.

Definition of OER as "materials offered, freely and openly to use and adapt for teaching, learning, development and research" Commonwealth of Learning (NASSCOM®





www.oercommons.org



www.ocwfinder.com





www.ocw.mit.edu



www.oyc.yale.edu



HSPHOPEN courseware

www.ocw.jhsph.edu

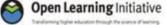


http://itunes.stanford.edu/



https://cnx.org/





http://oli.cmu.edu/





http://ocw.tufts.edu/

http://ocw.umb.edu/

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Online Tools for Educators

Tools		What do they entail	url		
Popular Ones					
Productivity Tools	Office	Word , Excel, Powerpoint, Outlook, One note			
Twitter	¥	Social Stream	www.twitter.com		
Word Press	₩ WORDPRESS	Blogging	www.wordpress.org		
Onedrive/DropBo		Drop Box + Share	www.onedrive.com/www.drobox.com		
Youtube	You Tube	Unlimited video and audio content	www.youtube.com		
Skype	Skype	VolP Tool	www.skype.net		
Moodle	moodle	Course Management System	www.moodle.org		
Scribd	S SCRIBD	Documentsharing tool	www.scribd.com		
G- Classroom		Connect with your class	https://classroom.google.com/		
Unique Ones					
Glogster	Glogster*	Interactive Posters	www.edu.glogster.com		
Kahoot	Kahoot!	Create and Play Quizzes	www.kahoot.com		
Mindmeister	o mindmeister	Mind Mapping Tool	www.mindmeister.com		
Wordle	Wordle	Visual cloud of words	www.wordle.net		

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Questions to Ask Now

- 1. How will my institution adapt to the accelerated pace of technology adoption?
- 2. How will my institution stay relevant if OEM's directly offer their courses?

sity manage in an environment where students
ess to information, experts, and resources?

I'm too busy sawing the tree to stop and sharpen the saw
students who tap into expertise outside the

"I don't have time to see any crazy salesman; I have a battle to fight."

5. How do r support self-service learners who challenge the status quo?





Interactive session-5: Roadmap for Higher Education Post COVID-19

Prof. N. S. Rathore Vice Chancellor, MPUAT, Udaipur

Due to this COVID-19 the completed education systems get affected which results the shifting of class room learning towards online learning. It is well known that the teaching–learning processes for most of the professional courses are classroom based and practical oriented. In India the schooling system significantly varies in terms of influential capacity, academic staff, and arrangement. The academic institutions and learners equally are under compression to not lose academic spell and re-invent their teaching-learning in the only possible way – go completely online. The use of Information Communication Technology (ICT) based learning mode has extensively revealed which further received an unprecedented acceptance at all levels of the academics ranges from K1 to K12 as well to the higher education system in the country. Some ICT based solutions such as recorded modules and online teaching, conducting online examinations are a few to mention. The online classs is the demand of the current situation. Lot of students shifted towards the online education technology.

Over the years, learning has evolved itself beyond the classroom. In the pre-internet era, or even when the internet was in its nascent stages, scholars had the traditional option to pursue a course of their choice through distance education. This technique of distance learning provides a way to the scholars by empowering them to join the consistent classroom based courses without any problem.

Due to the extensiveness of Coronavirus disease (COVID-19) in India, succeeding the government's guidelines of "nonstop teaching and learning," most Indian Schools and Universities have started online education. In a short time period, millions of faculty members started to teach in front of a computer screen, and their students have to stay at home and take the courses through the internet.

Thanks