

# Massive Open Online Courses

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**MOOC**

# What is a MOOC?

- A massive open online course (MOOC) is a free web-based distance learning program that is designed for large numbers of geographically dispersed students.
  - Massive because enrollments are unlimited and can run into hundreds of thousands.
  - Open because anyone can enroll — that is, there is no admission process.
  - Online because they are delivered via the internet.
  - Course because their goal is to teach a specific subject.

# What is a MOOC?

- A MOOC may be patterned on a college or university course or be less structured.
- Although they do not always offer academic credits, these courses may offer a certification, enhance employment opportunities or further studies.
- Typically, MOOCs are used for higher education and career advancement. But due to the coronavirus pandemic, many public school districts and undergraduate degree programs have implemented MOOCs as the new standard.

# History of MOOC

- The word was coined in 2008 by Dave Cormier, from the University of Prince Edward Island, for an online course offered by the University of Manitoba, "Connectivism and Connective Knowledge."
- There were 25 tuition-paying students from the university and 2,300 non-paying students from the general public who took the course online.

# How do MOOCs work?

- MOOCs are online courses that a student accesses through the internet. Typically, these courses consist of traditional class materials made accessible online, which may include the following:
  - filmed or recorded video lectures;
  - readings;
  - problem sets;
  - online quizzes and examinations;
  - interactive learning modules; and
  - interaction with other students via forums.

# How do MOOCs work?

- Typically, each MOOC will include a course provider and a course platform.
- A course provider is often a university, which supplies the course materials and instructors.
- The platform -- such as EdX, Canvas, Coursera or Udacity -- provides the technological infrastructure for course modules, user access and other learning resources.

# Finding MOOCs

- Providers of MOOCs are mostly universities but may also be corporate entities.
- Top educational institutions and universities, such as Harvard, the Massachusetts Institute of Technology (MIT) and Stanford, are leading providers of online courses.
- Corporations such as Microsoft and Accenture also provide publicly available online courses.
- When searching for a MOOC to take, it is important to make sure that the course aligns with the student's education and career goals.

# Enrollment and pacing

- This generally varies by the type of course or program.
- For example, courses that are not for university credit are typically available to the general public.
- Enrollment for online degree programs, however, often requires a traditional admissions process.
- Courses offered for university credit and as part of online degrees generally tend to follow a traditional semester schedule, while certification MOOCs may be self-paced or follow an abridged schedule, sometimes only taking eight weeks to complete.



# How are learners tested in MOOCs?

- MOOCs can include:
  - Auto-graded quizzes — that is, quizzes that are automatically graded upon submission, such as multiple choice questions.
  - Peer-feedback assignments — that is, assignments that are graded by other learners according to a specific rubric.
- Your performance on these assignments then determines your overall course grade.
- Note that instructors don't grade learners' work in MOOCs.

# Fees

- Beside certificates, other MOOC components may be hidden behind a paywall — for instance, graded assignments.
- MOOCs often offer two enrollment options:
  - Free Auditing — which gives you access to videos, readings, and forums for free.
  - Paid Enrollment — which gives you access to all the content, including paywalled elements such as the certificate of completion.
- A small number of courses are pay-only.
- Note that online courses that involve paywalls are still often referred to as 'MOOCs' despite not being truly 'open' anymore.

# Features

- Free. These courses are completely free, but usually only to audit. However, students still have the option to pay for an official certificate of completion at the end of the course.
- Certificates. Certificates for completing individual courses range from about \$20 at the lower end, to around \$300, with the average being between \$50 to \$100.
- Micro credential. Micro credential programs typically consist of three to six courses. According to EdX, a popular platform for MOOCs, the median price for micro credential programs is \$946. Typically, they are narrow in focus and provide a specific skill or competency.

# Features

- University credit. Courses in this tier are university accredited and comparable to online courses at institutions that provide degrees. Individual courses at this level can range from a few hundred dollars to a few thousand dollars.
- Online degree. Online degree programs are equivalent to master's or continuing education degree programs at universities and offer comparable volume and depth of coursework. Online degree programs generally follow a traditional application and admissions process and range from a few thousand dollars to tens of thousands of dollars.
- Corporate training. Corporate training MOOCs are deployed on an enterprise level. This pricing option is typically structured as a per-user cost for access.

# Benefits

- No physical location dependence.
  - This can improve collaboration efforts and save time by eliminating a student's daily commute. Online education also enables social distancing.
- Improved access to higher education.
  - Not only is this a function of convenience, but access to high-quality education in developing countries can ultimately increase quality of life and contribute to sustainable development efforts by providing a high-quality, accessible learning infrastructure.

# Benefits

- Affordability of higher education.
  - Scalability makes these types of courses more cost-effective than in-person courses of comparable scope.
- Flexible learning schedule.
  - Many courses are self-paced, which can accommodate student work schedules. Even if course completion is not self-paced, as with online degree programs, prerecorded lectures can offer more flexibility on a daily and weekly basis.

# Drawbacks

- Flexibility can make the course more difficult to manage, as some students require the structure of in-person learning.
- A University of Texas study of online course completion rates found that MOOC completion rates are just 6.8%, significantly lower than in-person courses. Students may not feel as committed to attend a free online course as they would an in-person course that requires tuition.
- Instructors are less accessible.

# Drawbacks

- Digital literacy is required for effective use.
- Students are less likely to form relationships with instructors and other students.
- Students with visual or auditory disabilities may not be accommodated.
- Courses require strong internet connections, which can be an issue in developing countries and underprivileged communities.
- When searching for the right course, large amounts of similar courses for saturated areas, such as computer science, may lead to a paradox of choice.



# What to consider before taking a MOOC?

- Before starting any MOOCs, it helps to understand just why you want to enroll.
- Do you want to take a MOOC to:
  - Add extra skillset in resume
  - Switch careers?
  - Gain a promotion?
  - Become better at your job?
  - Improve your job prospects?
  - Or, simply for the pleasure of learning?

# What to consider before taking a MOOC?

- Other important considerations are:
  - Do you want to take the full MOOC or just part of it?
  - How much time can you dedicate to the course weekly?
  - Are you looking for an introductory, intermediate, or advanced course?
- The MOOC listing contains information to help you decide if the course matches your goals, such as potential prerequisites, course content, difficulty, and expected time commitment.

# Top MOOC Providers



**Udemy**  
20484 courses



**Coursera**  
12212 courses



**LinkedIn Learning**  
9030 courses



**Skillshare**  
8351 courses



**YouTube**  
6120 courses



**Pluralsight**  
5224 courses



**edX**  
5002 courses



**AWS Skill Builder**  
3040 courses



**FutureLearn**  
2788 courses



**Swayam**  
2424 courses



**Domestika**  
1260 courses



**CreativeLive**  
889 courses



**Miríadax**  
687 courses



**France Université Numérique**  
675 courses



**Independent**  
659 courses



**Microsoft Learn**  
646 courses



**Canvas Network**  
612 courses

# Swayam NPTEL

- SWAYAM is India's national MOOC platform. It offers over 2,150 courses taught by close to 1,300 instructors from over 135 Indian universities.
- One aspect that sets it apart from other providers is that it allows students in India to earn academic credit online.
- Since the platform was launched in 2017, over 10 million learners have taken courses on SWAYAM.
- At the rate it's growing, in a few years, SWAYAM could become the world's largest MOOC provider.
- NPTEL is a project of MHRD initiated by 7 IITs along with the IISc, Bangalore in 2003, to provide quality education to anyone interested in learning from the IITs.

# Swayam NPTEL

- The courses hosted on SWAYAM are in 4 quadrants –
  - (1) video lecture,
  - (2) specially prepared reading material that can be downloaded/printed
  - (3) self-assessment tests through tests and quizzes and
  - (4) an online discussion forum for clearing the doubts. Steps have been taken to enrich the learning experience by using audio-video and multi-media and state of the art pedagogy / technology.

# Swayam NPTEL

- Courses delivered through SWAYAM are available free of cost to the learners, however learners wanting a SWAYAM certificate should register for the final proctored exams that come at a fee and attend in-person at designated centres on specified dates.
- Eligibility for the certificate will be announced on the course page and learners will get certificates only if this criteria is matched.
- Universities/colleges approving credit transfer for these courses can use the marks/certificate obtained in these courses for the same.

# Swayam NPTEL

- UGC has already issued the UGC (Credit Framework for online learning courses through SWAYAM) Regulation 2016 advising the Universities to identify courses where credits can be transferred on to the academic record of the students for courses done on SWAYAM.
- AICTE has also put out gazette notification in 2016 and subsequently for adoption of these courses for credit transfer.
- The current SWAYAM platform is developed by Ministry of Education and NPTEL, IIT Madras with the help of Google Inc. and Persistent Systems Ltd.

# Participating institutes



## School Education

NIOS

NCERT



## Out-of-School Education

IGNOU

NITTTR



## Under-Graduate Education

NPTEL

AICTE

CEC

IIMB



## Post-Graduate Education

NPTEL

AICTE

IIMB

UGC



# Participating institutes

- AICTE (All India Council for Technical Education) for self-paced and international courses
- NPTEL (National Programme on Technology Enhanced Learning) for Engineering
- UGC (University Grants Commission) for non technical post-graduation education
- CEC (Consortium for Educational Communication) for under-graduate education
- NCERT (National Council of Educational Research and Training) for school education
- NIOS (National Institute of Open Schooling) for school education
- IGNOU (Indira Gandhi National Open University) for out-of-school students
- IIMB (Indian Institute of Management, Bangalore) for management studies
- NITTTR (National Institute of Technical Teachers Training and Research) for Teacher Training programme.

# Lets See...

- <https://swayam.gov.in>

# Spoken Tutorial



- Spoken Tutorial is a multi-award winning educational content portal. Here one can learn various Free and Open Source Software all by oneself.
- Their self-paced, multi-lingual courses ensure that anybody with a computer and a desire for learning, can learn from any place, at any time and in a language of their choice.
- The courses are simple and easy to follow even for a beginner but they also meet the growing needs of the learner.
- Engaging digital content ensures that learning happens at all levels - Basic, Intermediate and Advanced



- They are now partnered with NASSCOM – <http://futureskills.nasscom.in/>, they feature as a Partner Tile on NASSCOM's FutureSkills platform along with NPTEL, Khan Academy, edX, Pearson, etc.
- <https://spoken-tutorial.org>

# IITBombayX

- IITBombayX is an online platform developed by IIT Bombay, to offer Massive Open Online Courses (MOOCs) for individuals from varying backgrounds.
- They specialise in Hybrid MOOCs which captures the benefits of flipped classrooms, online lectures, and live interactions with the IITBombayX course instructors.
- IITBombayX offers four different types of MOOCs for various learning needs.

- EduMOOCs
  - EduMOOC is targeted for learners wishing to enhance their academic knowledge in different fields of study.
  - These MOOCs are mainly IIT Bombay extension courses, and are taught with the same rigour as those running on the campus.

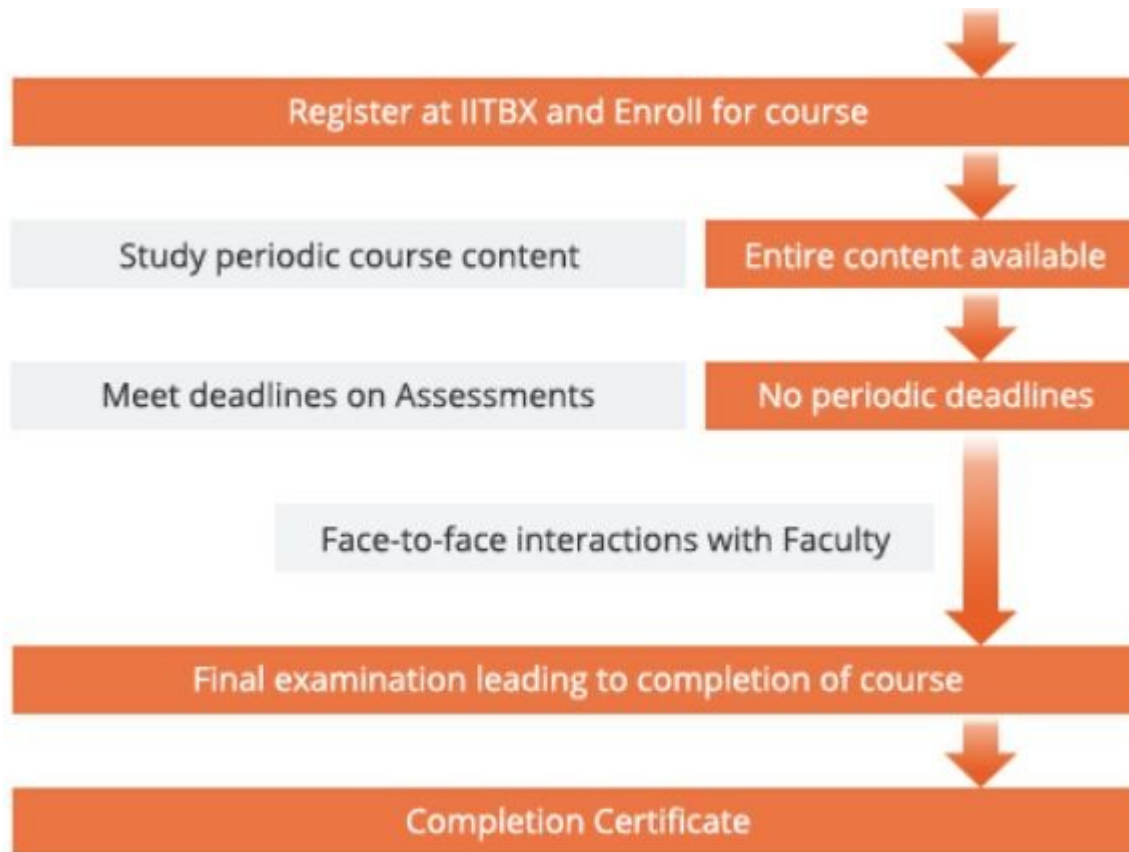
- SkillMOOCs
  - SkillMOOC effectively trains individuals in their on-the-job skills, with a primary focus on professional development.
  - The learners honing such skills are likely to succeed by gaining a competitive edge in their profession.

- TeachMOOCs
  - TeachMOOC is designed for teachers across the country, to enhance their teaching skills by introducing them to various pedagogical methodologies.
  - TeachMOOCs are mostly conducted in a hybrid fashion, where the initial part of learning is conducted online, followed by face-to-face sessions.



- LifeMOOCs
  - LifeMOOC offers courses of short durations for working professionals and others desiring to pursue life-long learning.
  - Life-long learning is a journey that every learner seeks to undertake. The purpose of LifeMOOCs is to benefit learners in elevating their careers.
  - In addition, these MOOCs may well be used as precursors to any other domain of MOOCs.

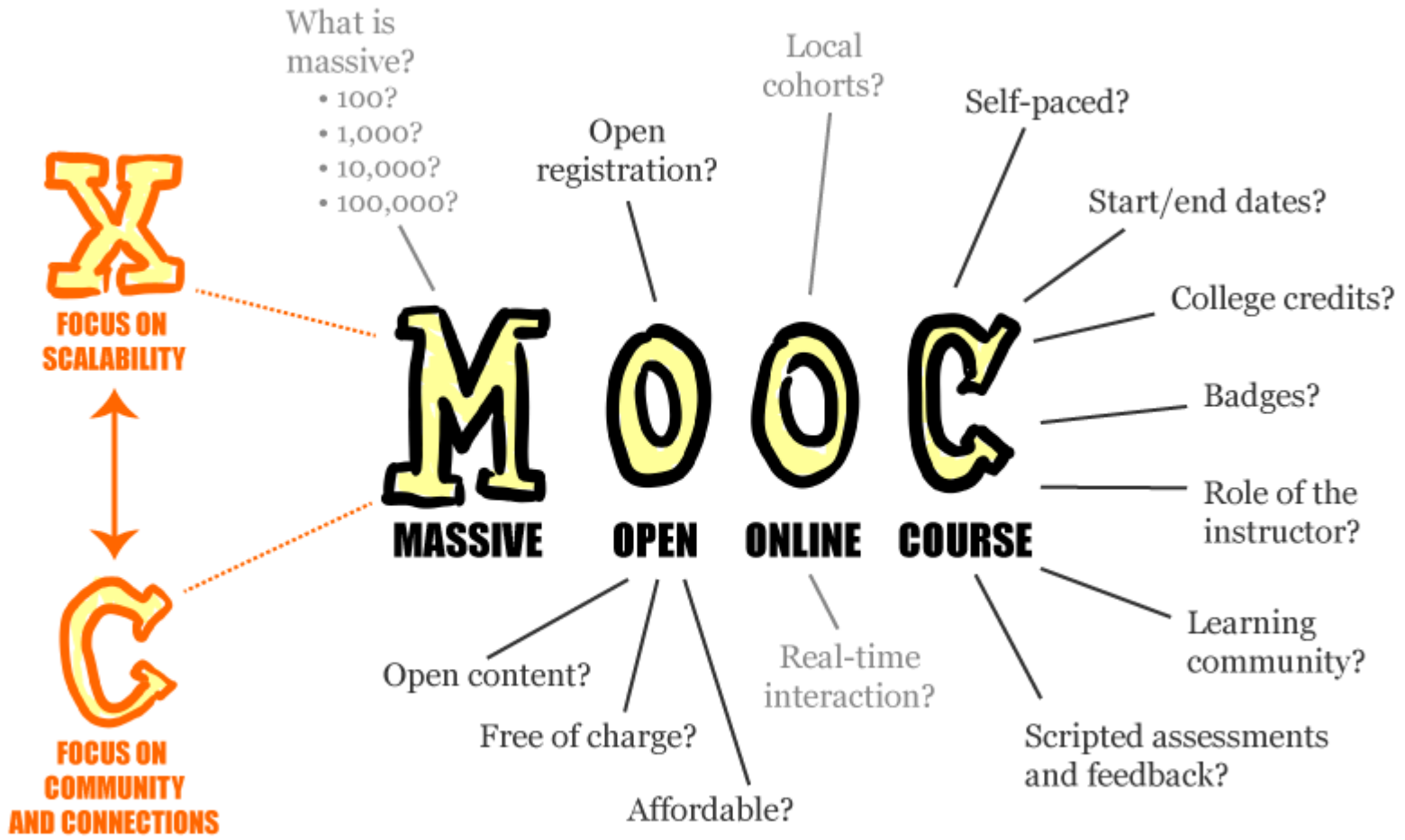
# IITBombayX : How it works?



# Lets See...

- <https://courses.iitbombayx.in>

# MOOC



# Thank you

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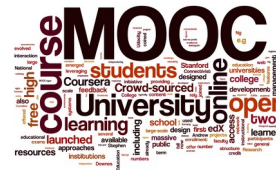
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## Web Resources

<https://mitu.co.in>

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