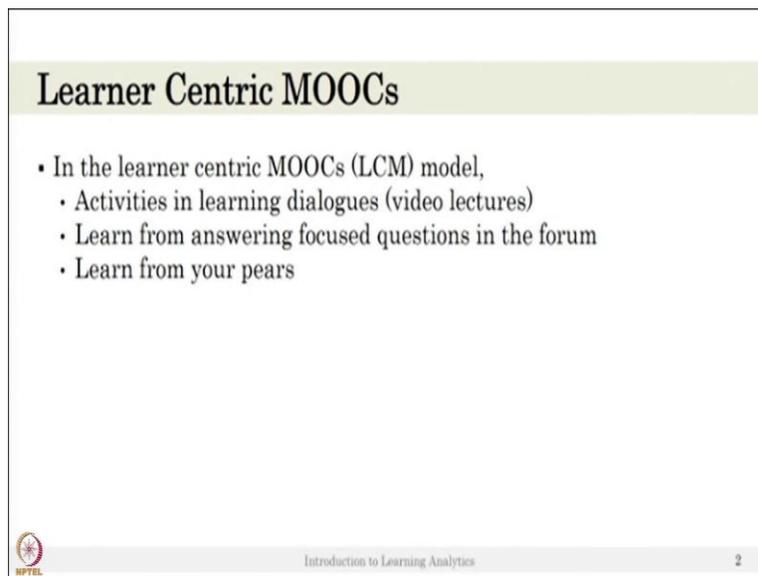


**Introduction to Learning Analytics**  
**Prof. Ramkumar Rajendran**  
**Interdisciplinary Programme in Educational Technology**  
**Indian Institute of Technology, Bombay**

**Lecture - 05**  
**Data Collection**

In this week, we will discuss about Data Collection and ethics and privacy in Learning Analytics.

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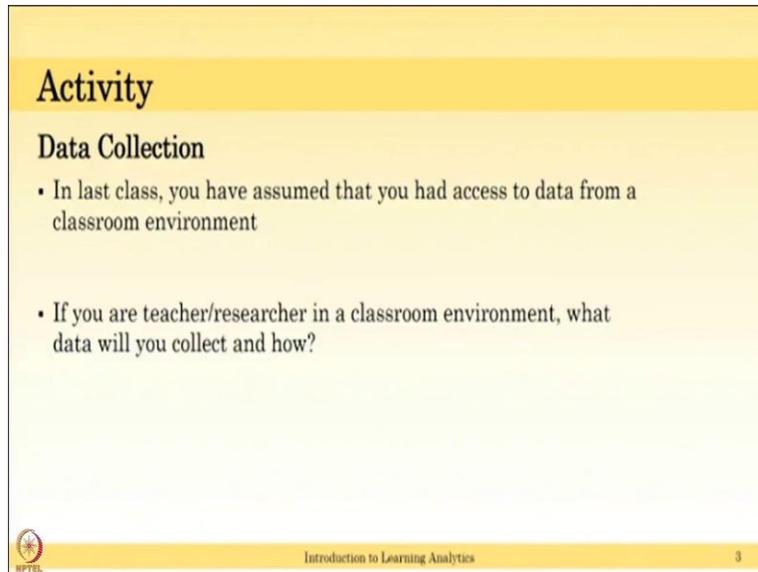
The slide is titled "Learner Centric MOOCs" and features a light green header. Below the header, there is a bulleted list of activities in the LCM model. At the bottom left, there is a small NPTEL logo, and at the bottom center, the text "Introduction to Learning Analytics" is displayed. A small number "2" is visible in the bottom right corner of the slide.

- In the learner centric MOOCs (LCM) model,
  - Activities in learning dialogues (video lectures)
  - Learn from answering focused questions in the forum
  - Learn from your peers

As I mentioned in my first class, this course we are offering using Learner Centric MOOC model, you might be wondering what is Learner Centric MOOC model or why do not get two and half hours of video to watch in a first week because we are not only delivering the videos in this course, instead each activity or each video lecture is called the learning dialogues, this is the only place you will watch video and you will have to do some activity.

Apart from this, you will learn from answering focused questions that is asked in the MOOC and also a discussion in the forums. So, we expect you to actively participate in this focused questions and the activities listed in the forums in every week and discuss with your peers and learn from your peers.

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**Activity**

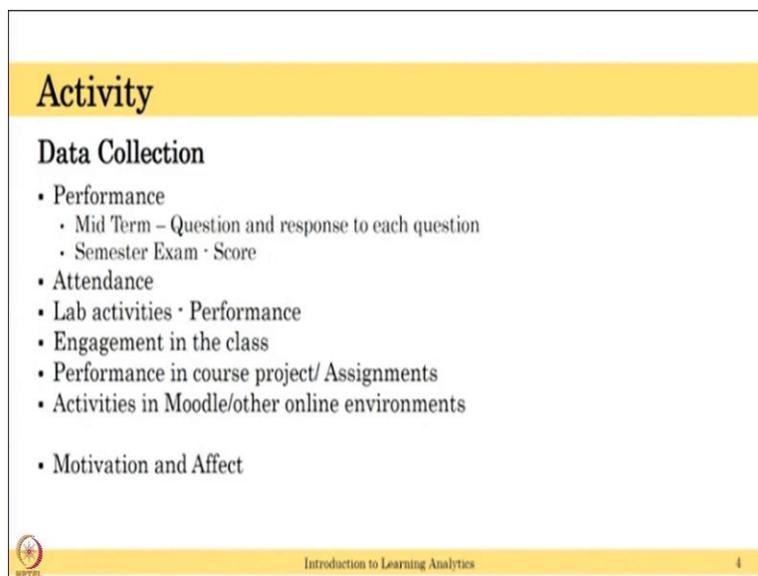
**Data Collection**

- In last class, you have assumed that you had access to data from a classroom environment
- If you are teacher/researcher in a classroom environment, what data will you collect and how?

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Let's begin with activity, in last class we mentioned that you had access to data. Consider you are a teacher or researcher in a classroom environment, similar to the example we given in the last class, what data would you like to collect and how do you want to collect data in a classroom environment. You can pause this video, write down your answer after completing your activity, you can resume this video to continue.

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**Activity**

**Data Collection**

- Performance
  - Mid Term – Question and response to each question
  - Semester Exam · Score
- Attendance
- Lab activities · Performance
- Engagement in the class
- Performance in course project/ Assignments
- Activities in Moodle/other online environments
- Motivation and Affect

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You might have thought you can collect the performance data, profile data like mentioned in the last classes then performance data what are the performance data you are comparing, it is like a midterm data or semester exam data, if it is a semester exam data, you might be able to collect say scores and students response in each question what is the score in each questions.

Also in a midterm data that you have access to it and you are access to it in a question paper setup and also you have know the what response to student expected, you can take collect more richer data saying that which question the students responded, which questions the students had a difficulty in it. So, you can collect data in the performance from midterm and exam scores. Also the attendance to make sure that how many days students attended the class. If this course have a associated lab activity, you can also collect their performance in the lab whether the student able to complete the lab assignments in time or they take more time.

Also the engagement in the class it is not just attendance, how much students actively participating in the class, is he discussing with his peers, is he able to engage in the class and ask doubts and interact with the teachers. Apart from this if you have given a course assignment or course project in your course, you can assess the students' performance in the projects also if your university or college have a LCM like Moodle or Blackboard, you can access the data in Moodle or Blackboard also.

The students submit assignments in Moodle and you can check the participation in Moodle chat forums and forum data. Apart from this, these data you can collect from the students' interaction with some system like the performance in the score in the exam or engagement in the class or activity in the Moodle, apart from this you can also collect data by human observation. Something like students' motivation and affect. If your class strength is say minimum like a 40 to 50 then you can observe, what is the overall affect of this class, if lot of students get confused when you teach then you can change your up teaching approach.

If the lot of students got bored, you might give us some other assignments to make them active or the students look less motivated or not interested to learn then you can change the activity. So, you can collect these kind of information also for the learning analytics.