Introduction to Learning Analytics
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Lecture 13
MOOCs Analytics Dashboard

In this learning dialogue, we will discuss MOOCs analytics dashboard.

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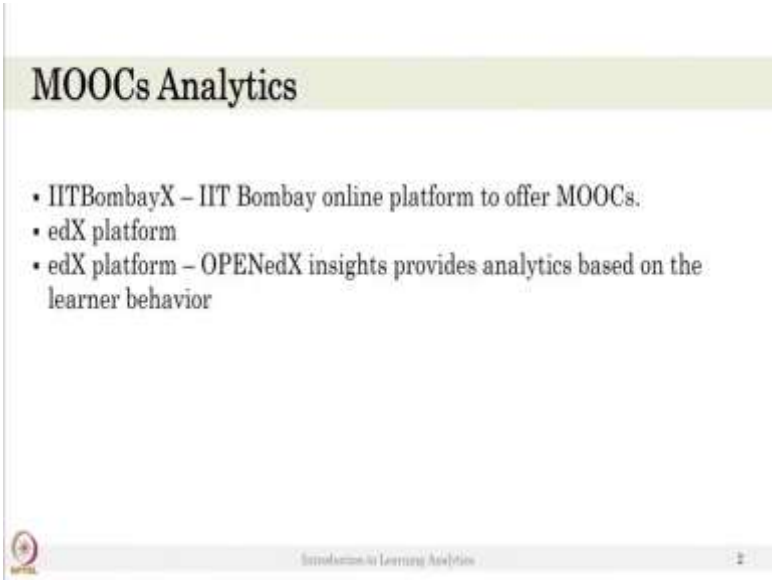

IIT Bombay X or IIT Bombay online platform to offer the MOOCs, it's called a IIT Bombay X, it is the platform by edX. Last week we saw the data from IIT Bombay X platform, we saw the raw data it collected. In this week we will see how this data is used for the dashboard analytics. The edX platform also offers a OPENedX insights, that provides the analytics based on the data collected from edX platform MOOCs and it reduces the insights by using OPENedX insights platform.

Before showing the MOOCs analytic dashboard I would like you to think about this activity.

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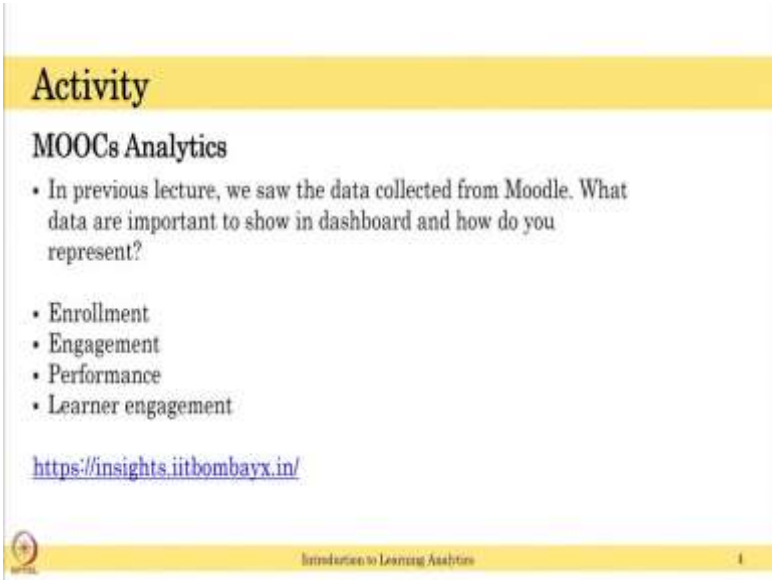

So, what data important to show in the dashboard from the IIT BombayX MOOC and how do you represent. You can pass this video while we answer these questions after that you can resume the video to continue. Based on data we collected we shown in the last class, we can talk about following set of data, or please remember this following set of data is for the edX platform. If you are talking about Coursera platform or NPTEL platform, the collection data collection, the data you collect might be totally different you can collect even more data, but these are the general data collected in a MOOC platforms; one is enrollment, how many users enrolled in your course, what is the enrollment status over the weeks, are they continuing or they dropping out.

The next one is engagement. Are they engaged? How the engage with the video and the performance in the LEDs, LBDs or some other forums or the post test pretest or certificate course or assignments. Also the engagement, is the learner engagement is more or less? We look at the MOOCs insights, from the insights.iitbombayx.in This site have a restricted access, so I am going to log into my email id then I will show the insights from the IIT Bombay X MOOC courses.

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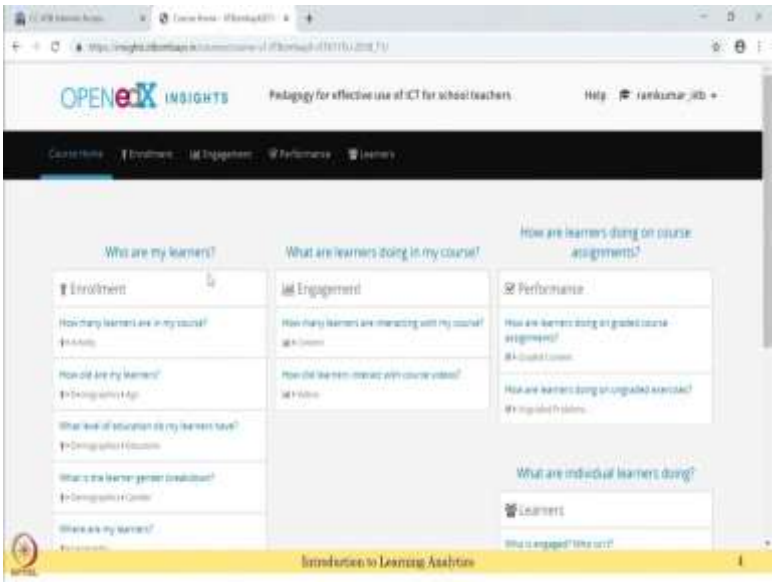

We are looking at the IIT Bombay edX insights web page, we are talking about a course called pedagogy for effective use of ICT for schoolteachers. This analytics is only for this particular course.

There are four type of things like a enrollments, engagement, performance and learners.

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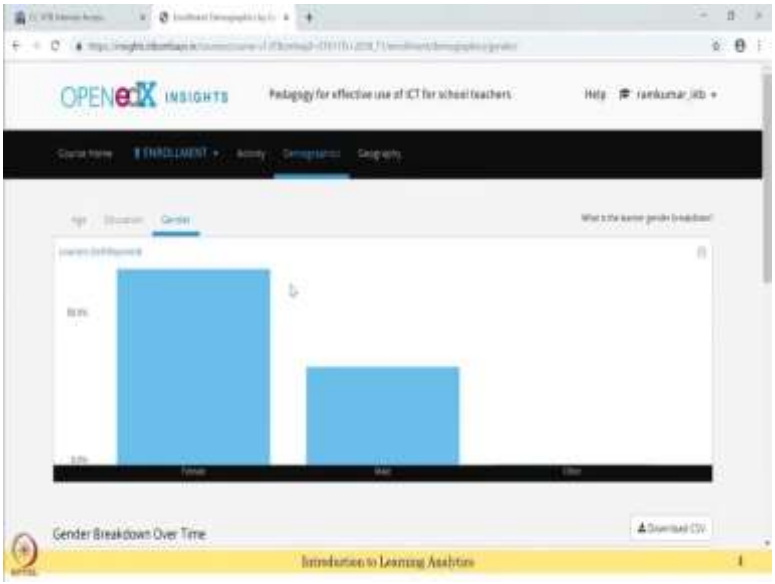

If we will talk about engage enrollments, you will have the value like activity. demographics and geography. So, daily learner enrollment over the period of time. The enrollment is less just because the students who do not enroll and they can take a course

directly. It is shown using the stack chart. Here you can see the user's age, the education, their gender. However, this data is optional if the user enters this data then only it will be displayed otherwise it will not be displayed.

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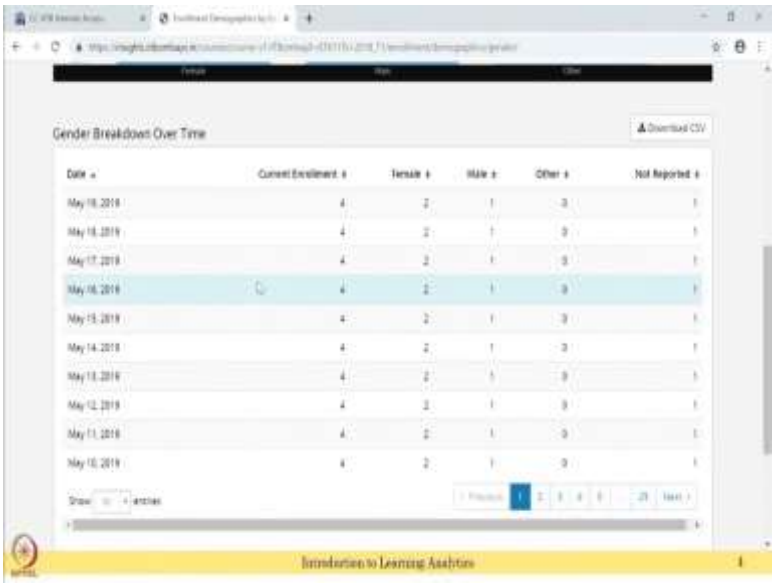

The more importantly the I OPENedX insights offers you also the tabular form of data. Data visualization is not just showing the data in a graph, it is also should have a data, so that users can use those data.

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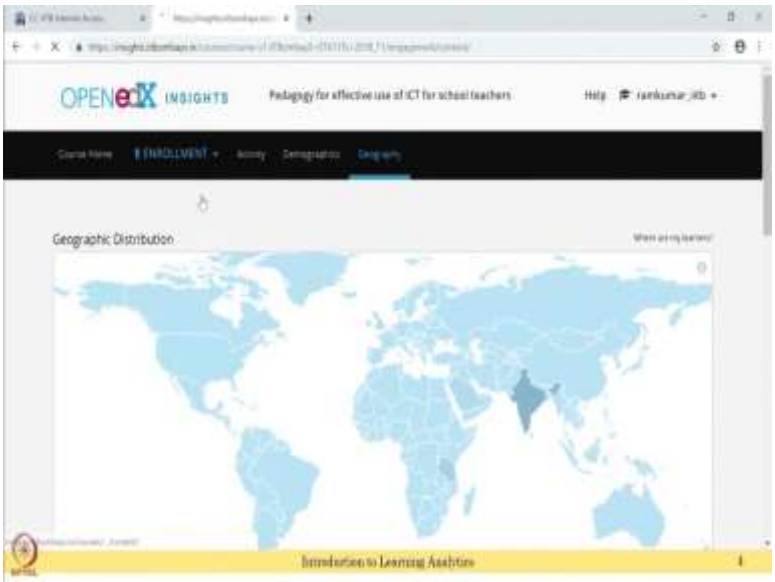

When you look at the geography, the most participants from India and the few participants from Tanzania, and there are one participant from United States.

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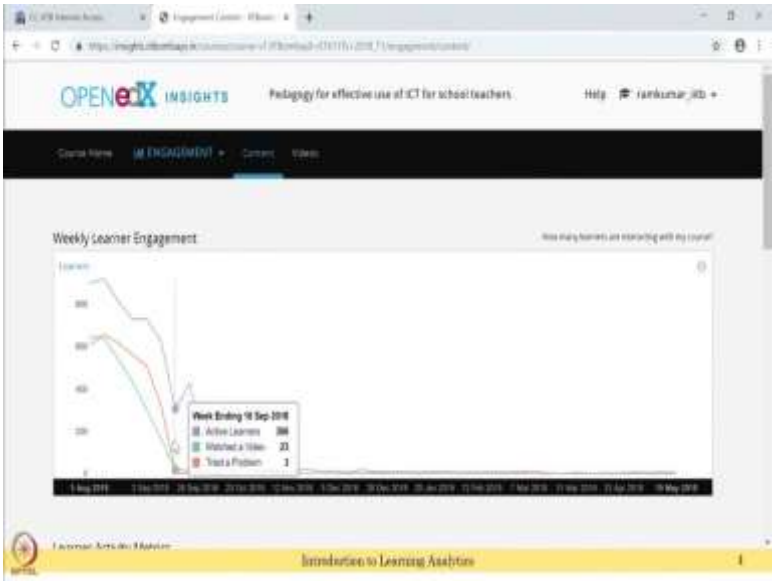

Let us look at the engagement. Here you can see there are lot of active users, initially the courses only offered for 4 weeks. So, their lot of active users on a first week and the active users first day used and there is some active users continued, then number of active users dropped after fourth week gradually.

So, the active learner's is shown in this current chart. Also this chart indicates how many problems they tried, how many problems they try to answer it and this green color indicates they watched a video. Active users is they logged into video, they looked at a page or combination of these two, this represents the active users, but really speaking how many videos they watched. The students who watch in the video is gradually reduced over the weeks.

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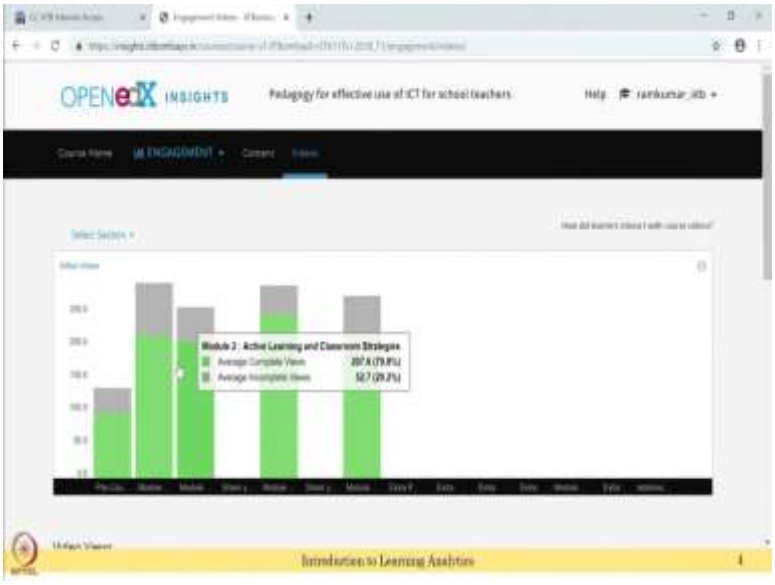

If you look at the weeks video data how many videos has been watched by the user for a over the week. For the module 1 average completion time is 73 percent of participants or the students enrolled in the course completed watching the video, it is a very good retention rate.

So, this shows that for each module, that is a 4 weeks module, this is a pre course module. For each module what is the percentage of users watched this particular video. As I mentioned in order to collect this kind of data, we need to collect each users' watching time, then you need to compute the average, then represent the data in such a format, just a stack chart format.

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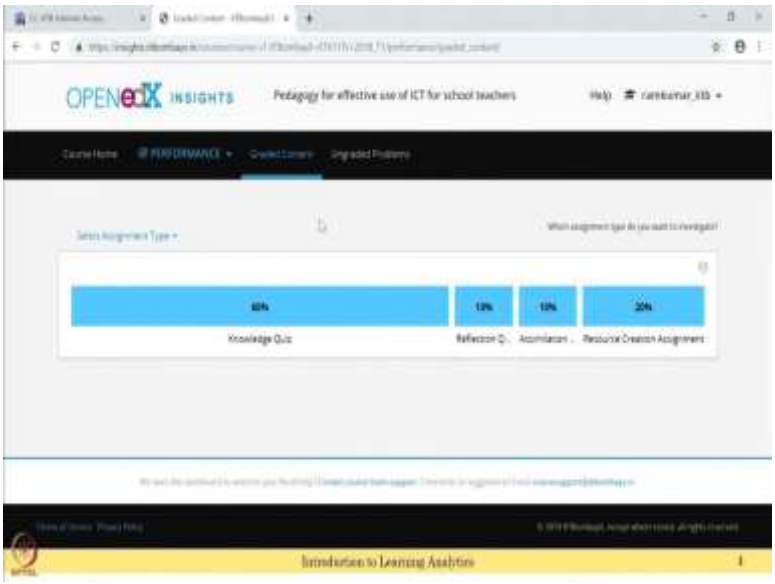

Let us look at the performance, there is only one performance, knowledge quiz and reflection quiz and assimilation quiz and resource creation assignment. They are all like a four different performance and each performance has the own weight age of marks. And the students' performance in each of this is shown here.

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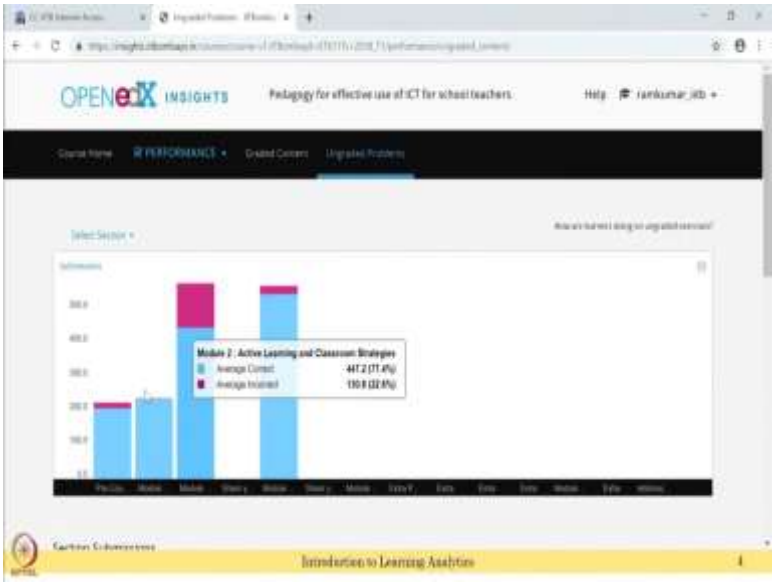

Here we have seen the data, we have seen the data for the learners, the Led of who is doing the course and how they interacted with the video and things. From this you can ask lot of this question, how many learners are in my course. This can be answered by

looking at the particular chart. So, these are the questions you want to ask from the data which can be viewed directly from the graphs. So, the researchers first start with lot of data, then they want to ask how many users in my course, how many users watch this particular video. If the video attention rate is less for particular module you want to introspect to why that particular video has less number of retention rate. That means, why that particular module or particular video has less people completing full video, why they drop out in between.

The topic may be easy or the content is too tough, we do not know. We need to understand what happened in that particular video content. In order to do that we need to introspect and look at the data and why the users are dropping there, on which minute they drop, what is the minute they dropped, how far they watched. This will give you the diagnostic analytics to understand the data why the student is dropping. So, the first step in data analytics is that trying to collect data, then show the data in a visualization or data visualization.