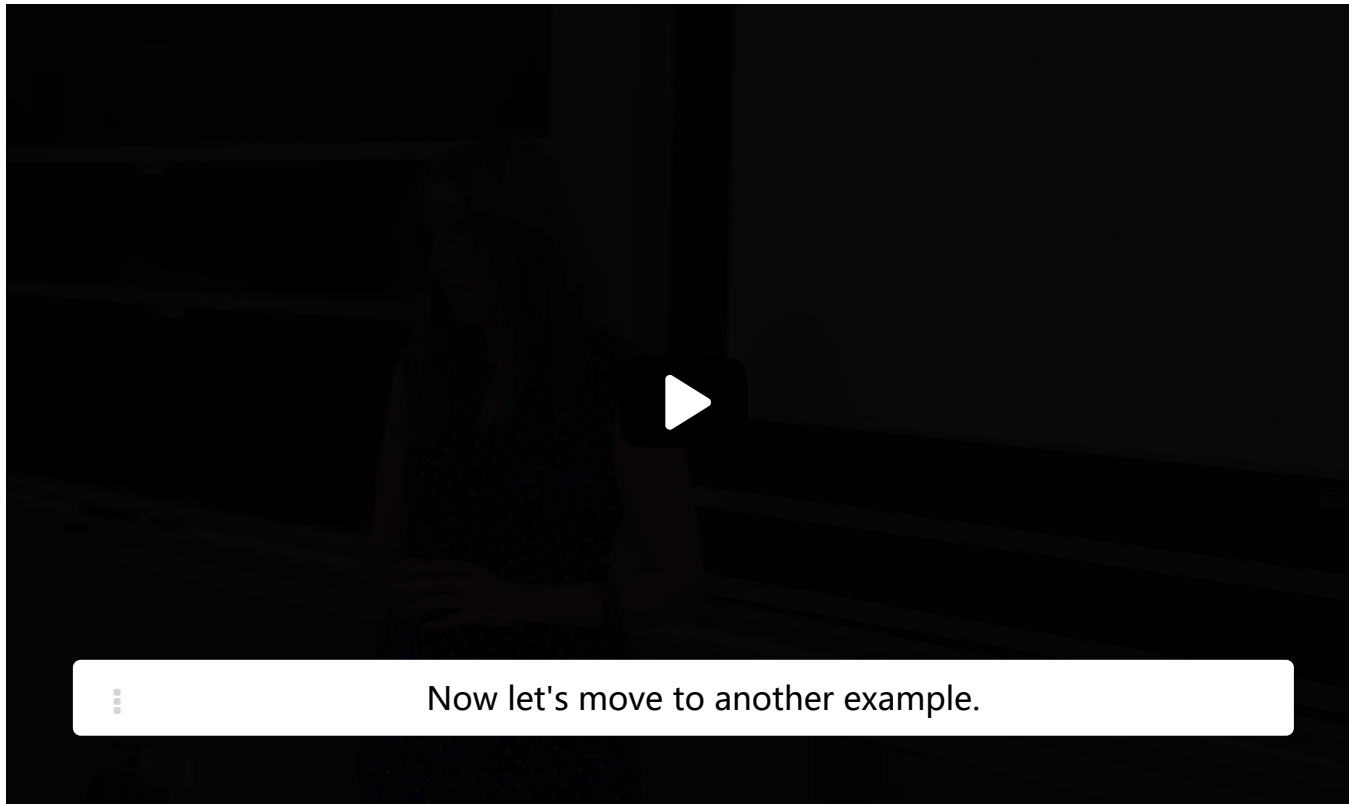# 3. Introduction to Clustering
# Introduction to Clustering

So, again, what were the three steps

when I did the computation?

I found out a representation of the stories, which

was bag-of-words approach.

Then we need to decide how to compare

each of these representations, in this case vectors.

And the third one is to do the clustering algorithm itself.

**Now let's move to another example.**

Now let's move to another example.

7:11 / 7:11    ▶ 1.0x    🔊    ⛶    CC    ❞

End of transcript. Skip to the start.

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## Different types of machine learning problems

3/3 points (graded)

1. We'd like to classify news articles into three predetermined categories–politics, sports, and entertainment. Among the following, which machine learning problem is this?

- ◉ classification ✔
- ○ regression
- ○ clustering

2. we'd like to partiton Google News articles into three sets of similar articles. Among the following, which machine learning problem is this?

- ○ classification
- ○ regression
- ◉ clustering ✔

3. Now we'd like to predict the expected value of tomorrow's NASDAQ index. Among the following, which machine learning problem is this?

- ○ classification
- ◉ regression ✔
- ○ clustering

**Solution:**

Classification and regression are supervised learning approaches that maps the input to an output based on a training set of input-output pairs. Classification predicts categorized labels, whereas regression predicts continuous value output. Clustering is an unsupervised learning approach, where we do not know the label of the data. Clustering is used to visually get a sense of how many groupings the data consists of. In other words, the intuitive, ultimate goal of clustering is **visualization of information**.

| Submit | You have used 1 of 2 attempts |

ⓘ Answers are displayed within the problem

# Discussion

**Show Discussion**

**Topic:** Unit 4 Unsupervised Learning (2 weeks) :Lecture 13. Clustering 1 / 3. Introduction to Clustering