Congratulations! You passed!

Grade received 100% To pass 80% or higher

1. Suppose that you have a very accurate model for a social app that uses several features to predict whether a user is a spammer or not. You trained the model with a particular idea of what a spammer was, for example, a user who sends ten messages in one minute. Over time, the app grew and became more popular, but the outcome of the predictions has drastically changed. As people are chatting and messaging more, now sending ten messages in a minute becomes normal and not something that only spammers do. What kind of drift causes this spam-detection model's predictive ability to decay?

O Data Drift

Concept Drift

✓ Correct

Nailed it! The model's original idea about what it means to be a spammer has changed, and now sending ten messages in a minute becomes normal. In other words, the concept of spammers has drifted. Consequently, since you haven't updated your model, it will predict these non-spammers as spammers (a false positive).

1/1 point

1/1 point

Using a statistical measure like the Kullback-Leibler divergence.

Correct

Nice job! Kullback-Leibler divergence, also called relative entropy, measures how much the probability distribution has drifted from the original position.

Using a human Data-Labeling service.

Using an unsupervised learning technique like clustering.

Correct

That's right! Clustering identifies relevant portions of the original dataset to retrain a model's functionality that has become dispersed. It is a form

of restructuring, and hence it could be a way of direct preventative maintenance.

1/1 point

3. True or False: Having restructured a new training dataset after detecting model decay, you must start over by resetting and completely retraining your

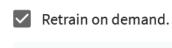
Correct

Exactly! You have two choices for how to train your model. Using your new data, you can either start over or continue training your model and fine-

False

tuning it from the last checkpoint.

1/1 point



✓ Correct

Way to go! You can retrain your model whenever it seems necessary, including situations like noticing drift or needing to change (add or remove) class labels or features, for example.

Retrain on performance-degradation detection.