

MITx: 14.310x Data Analysis for Social Scientists

**Help** 



- Module 1: The Basics of R and Introduction to the Course
- Entrance Survey
- Module 2:

   Fundamentals of
   Probability, Random

  Variables, Distributions, and Joint Distributions
- Module 3: Gathering and Collecting Data, Ethics, and Kernel Density Estimates
- Module 4: Joint, Marginal, and Conditional Distributions &

Module 11: Intro to Machine Learning and Data Visualization > Machine Learning II > New Data and Machine Learning - Quiz

# New Data and Machine Learning - Quiz

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# **Question 1**

1/1 point (graded)

True or False: Relative to survey data, data which is pre-processed using machine learning methods is much less reliable.

a. True

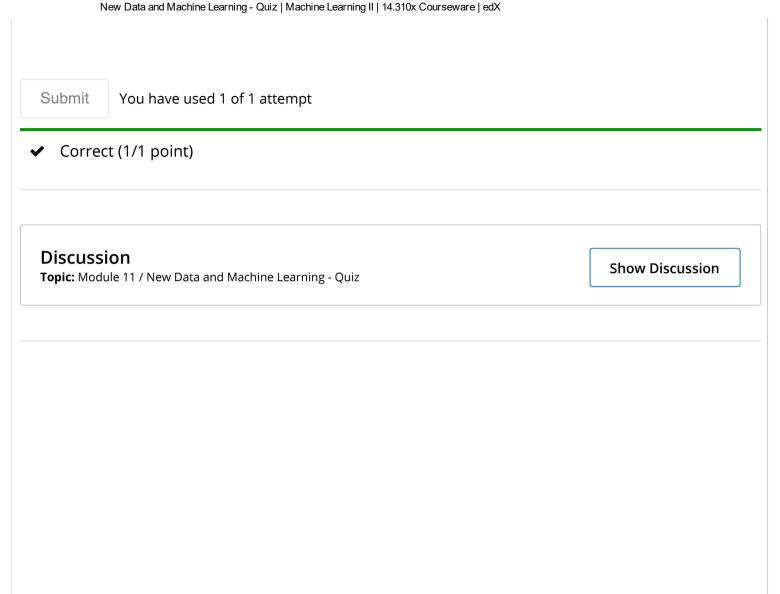
b. False

# **Explanation**

For any type of data, there is always the risk that you are not measuring what you think you are measuring. You could have a great algorithm that does very well at predicting a variable that is intended to be a proxy for something else, and that could turn out to be a better measure than survey data or other forms. There are also things you can't measure directly through survey data or other more traditional data collection methods. For example, if you are interested in summarizing features of language or speech, or features of satellite data, you would not be able to do this through traditional data collect methods. So prediction can be used to generate measures by turning the measurement problem into a prediction problem of predicting a particular meaningful feature based on a lot of other features.

**Functions of Random** Variable

- Module 5: Moments of a Random Variable, **Applications to** Auctions, & Intro to **Regression**
- Module 6: Special Distributions, the Sample Mean, the Central Limit Theorem, and Estimation
- Module 7: Assessing and Deriving Estimators - Confidence Intervals, and Hypothesis Testing
- Module 8: Causality, **Analyzing Randomized** Experiments, & **Nonparametric** Regression
- Module 9: Single and Multivariate Linear



#### Models

- Module 10: Practical **Issues in Running** Regressions, and **Omitted Variable Bias**
- Module 11: Intro to **Machine Learning and Data Visualization**

## **Machine Learning I**

Finger Exercises due Dec 12, 2016 05:00 IST

## **Machine Learning II**

Finger Exercises due Dec 12, 2016 05:00 IST

## **Visualizing Data**

Finger Exercises due Dec 12, 2016 05:00 IST

- ▶ Module 12: Endogeneity, Instrumental Variables, and Experimental <u>Design</u>
- Exit Survey



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