

MITx: 14.310x Data Analysis for Social Scientists

Heli



- 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
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Module 11: Intro to Machine Learning and Data Visualization > Machine Learning I > The Statistical Approach - Quiz

The Statistical Approach - Quiz

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Question 1

1/1 point (graded)

True or False: The statistical approach to solving problems such as sentiment analysis was eagerly accepted by the Artificial Intelligence (AI) community

a. True

b. False

Explanation

This statement is false. While it is true that this has become the standard approach to these types of problems today, Prof. Mullainathan mentions at the beginning of the lecture how this was originally met with enormous ridicule and resistence.

Submit

You have used 1 of 1 attempt

- 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

✓ Correct (1/1 point)

Question 2

0/1 point (graded)

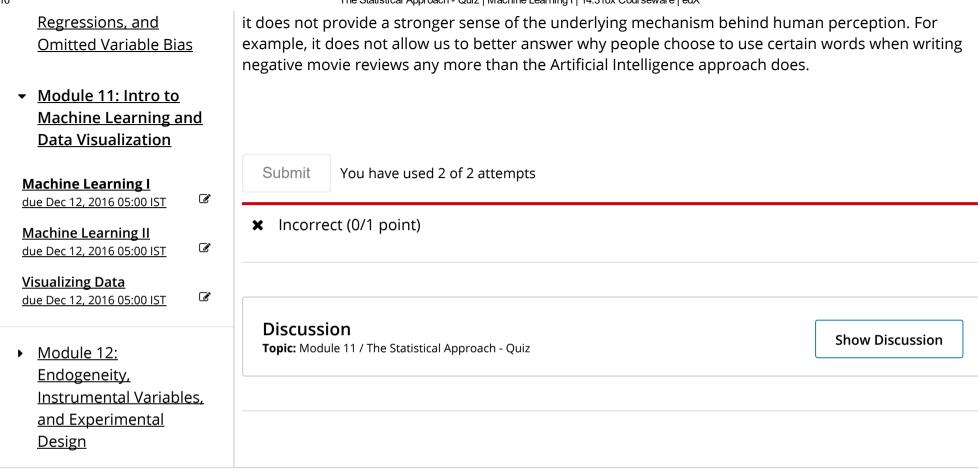
Which of the following are reasons why the statistical analysis approach to solving complex problems such as sentiment analysis and visual recognition is better than the Artificial Intelligence Approach? (Select all that apply)

- a. The algorithms generated using the statistical analysis approach tend to have greater predictive power
- b. The statistical analysis approach allows you to identify patterns in the data that a human may not have thought of on his/her own
- c. The statistical analysis approach provides you with a deeper understanding of the underlying mechanisms behind human perception



Explanation

In the lecture, Prof. Mullainathan provides the example of the movie reviews to show that while the words identified that indicate positive and negative reviews make intuitive sense, some of them, such as a question mark or an exclamation point, may not have been obvious to a researcher trying to come up with a list of positive or negative words. He further shows how these words have much higher predictive power than than the algorithms created from the AI approach described in the previous segment. Although the statistical analysis approach provides more predictive and accurate algorithms,



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