

MITx: 14.310x Data Analysis for Social Scientists

Heli



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Why the Artificial Intelligence Approach Stalled - Quiz

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Question 1

1/1 point (graded)

Which of the following does Prof. Mullainathan cite as a reason for why the Artificial Intelligence (AI) approach to solving complex problems, such as face recognition, ultimately stalled? (Select all that apply)

- a. Subtleties, such as in language, that are difficult to account for
- b. The inability to solve even simple problems, such as playing chess
- ✓ c. Sheer complexity of the number of variations that could be encountered
- d. A lack of creativity and statistical understanding in approaching problems



Explanation

As mentioned in the lecture, the AI approach of trying to determine how humans approach a problem and then utilizing this understanding to create algorithms ultimately failed due to subtleties, such as for the natural language case, and the sheer complexity of many of the problems they attempted to solve.

- Module 5: Moments of a Random Variable,
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- Module 6: Special
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- Module 7: Assessing and Deriving Estimators -Confidence Intervals, and Hypothesis Testing
- Module 8: Causality,
 Analyzing Randomized
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- Module 9: Single and Multivariate Linear Models
- Module 10: Practical Issues in Running

Therefore, answer choices A and C are correct. The Al approach was actually successful at creating algorithms for chess, however, as Prof. Mullainathan mentioned the world is not as simple as chess. Prof. Mullainathan did not cite Option D as a reason for why the field stalled.

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You have used 1 of 2 attempts

Correct (1/1 point)

Question 2

1/1 point (graded)

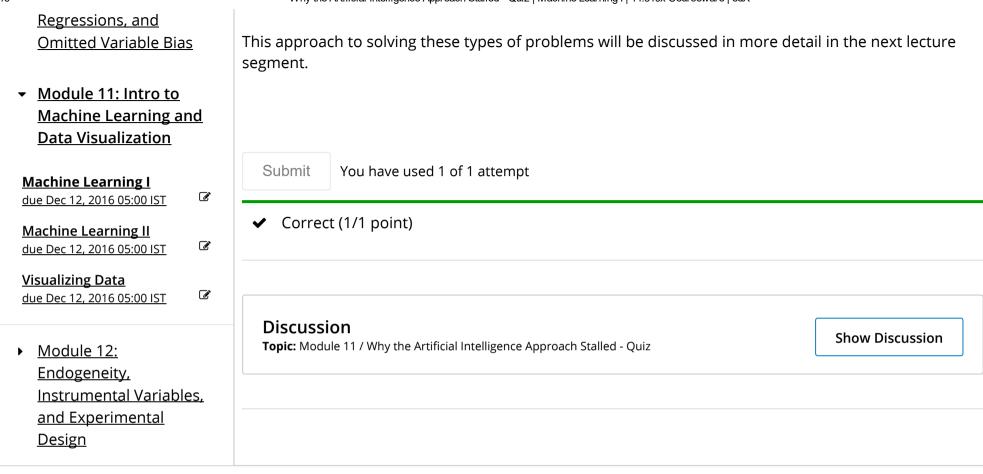
True or False: The "magic trick" for solving problems such as face recognition and sentiment analysis is to simply better understand how humans approach these problems and apply this information using the Artifical Intelligence approach.

a. True

● b. False

Explanation

At the end of the lecture, Prof. Mullainathan describes how the "magic trick" is to turn the problem into an empirical exercise. For the example of sentiment analysis and movie reviews, one can determine the likelihood ratio of certain words, meaning determine which words are most likely to appear in good and bad reviews. Then, you can select the words that are most likely to determine if a review is positive or negative and apply those to your analysis.



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