

Reading Guide Week 1 Answers

1. You are about to sell your car. What principles of choice are you most likely to use in deciding whether to offer or reject offers? Why?

Satisficing. You cannot optimize. The sequential nature of the coming offers makes it a typical situation in which you set an aspiration level (say \$3,500). You should accept the first offer that meets your aspiration level. (Others suggest using the first offer to calibrate the market, then accepting the first one that exceeds it, or other approaches—but they are all satisficing.)

2. You are about to buy a car. Using Simon's four-phase model, describe your activities at each step.

Intelligence: You recognize that your needs could be better served by a different car, due to a change in your present car (decreasing reliability, growing repair bills) or your situation (changed transportation needs, more money).

Design: Determine parameters that describe the appropriate car to buy. Also determine the criteria (objective function) that indicates the value of certain features in a car. From the multiple criteria, a principle of choice should be developed. The alternatives must be identified as well. This is a multiple-criteria problem. In assessing alternatives, it may be necessary to visit dealers to drive candidate cars and determine actual selling prices.

Choice: Choose the car.

Implementation: Buy the car.

3. What is predictive analytics? How can organizations employ predictive analytics?

Predictive analytics is the use of statistical techniques and data mining to determine what is likely to happen in the future. Businesses use predictive analytics to forecast whether customers are likely to switch to a competitor, what customers are likely to buy, how likely customers are to respond to a promotion, and whether a customer is creditworthy. Sports teams have used predictive analytics to identify the players most likely to contribute to a team's success.

4. What is prescriptive analytics? What kind of problems can be solved by prescriptive analytics?

Prescriptive analytics is a set of techniques that use descriptive data and forecasts to identify the decisions most likely to result in the best performance. Usually, an organization uses prescriptive analytics to identify the decisions or actions that will optimize the performance of a system. Organizations have used prescriptive analytics to set prices, create production plans, and identify the best locations for facilities such as bank branches.

5. What is descriptive analytics? What various tools are employed in descriptive analytics?

1

Descriptive analytics refers to knowing what is happening in the organization and understanding some underlying trends and causes of such occurrences. Tools used in descriptive analytics include data warehouses and visualization applications.

2 What are the differences between data capture, data transfer, and data analysis and presentation applications?

These are different ways of treating and using data. Data capture applications gather data and populate databases. Data transfer applications move data from one database to another. Data analysis and presentation applications provide data and information to authorized users. These different types of applications can use different technologies, and reside on different computers. This decoupling of overall data management components allows for greater flexibility, incremental change, a suitable mixture of enterprise-wide and local responsibilities, and the ability to better meet the needs of diverse users.

3 What are the so called Vs of Big Data?

THE VS THAT DEFINE BIG DATA

1. Volume
2. Variety
3. Velocity
4. Veracity
5. Variability
6. Value Proposition