

Prompt: Write a brief summary of and thoughts about an article less than two years old from a well-established source.

Title: What is big data analytics? Fast answers from diverse data sets

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Website: InfoWorld.com

URL: <https://www.infoworld.com/article/3220044/what-is-big-data-analytics-fast-answers-from-diverse-data-sets.html>

Summary

Big data sets contain anywhere from 1,024 terabytes (one quadrillion bytes) to 1,024 petabytes (one quintillion bytes) and beyond. This massive amount of information consists of different types of data from diverse sources that must be processed quickly.

All this data must be analyzed to extract the information needed by businesses to make decisions. Data analysis may be used to reveal patterns, trends, and relationships, or it may focus on categories of data, such as images or video.

Several technologies are addressing the unique needs of big data. Apache Hadoop uses distributed computing and open-source software to enable scaling up. Another Apache product, Spark, uses cluster computing, a form of distributed computing involving a group of computers all controlled by software to perform the same task.

Data lakes store enormous amounts of raw data until it is needed. Conversely, data warehouses store organized data. NoSQL eliminates the conventional constraints of SQL by enabling the horizontal scaling of databases to additional servers. In-memory databases (IMDBs) can access data faster than disk-based databases.

Big data use cases include customer analytics, operational analytics, fraud prevention, and price optimization. There is a need for more people with the knowledge and skills to manage projects that incorporate these big-data technologies.

Reaction

It was interesting to learn how these big data technologies are being optimized to address different requirements and use cases. The advancement of technology and increasing use of big data for a vast array of applications will require data analysts to be lifelong learners. Undoubtedly, those analysts will be paid quite well for their knowledge and skills.