Significance of Digital Data Visualization Tools in Big Data Analysis for Business Decisions

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Authors:
Kirti Mahajan, Leena Ajay Gokhale

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Abstract

Big Data is the large volume of data collected through various resources which integrates variety of structured, semi structured and unstructured data making it complex to analyze by using conventional methods and tools. Computer based visualization is the way of communicating the analyzed information to the user for the purpose of taking data driven business decisions. Visualization of the data is the way of presenting the large data graphically. It is a technique of displaying the information in such a graphical format that the information becomes easy to understand to the user. This interaction between the computer and the user is called graphical user interface. The entire process involves storing, processing and presenting the huge data for which different tools are being used. The tools used for storing and processing the data are considered as backend tools while visualization tools are called frontend tools. Visualization aims to improve the precision and manifestation of the information discovered. There are many conventional methods used for visualization of data. However they miss the potential of the Big Data. Images present the content in varied formats including graphs, charts, moving images, animation. Appropriate visualization of big data can have a major impact on the
business in discovering hidden insights, improving decisions and automating business processes. Therefore specific framework has to be designed which will give precise idea to the user about the entire process. This paper shows the panorama of the significance of visualization of big data, the protocols to be followed while selecting the visualization tool and the classification of these tools based on various factors.

References


Index Terms

Computer Science Information Systems

Keywords

Big data, big data analysis, digital data visualization, digital data visualization tools and techniques.