

Big data analysis in education

[Science](#), [Computer Science](#)



Abstract

Our education system has been changed into modern age technologies such as smart phones and tablets that's the technologies played a vital rule in everybody life. With online education humans can take any program or course. You will not be bound to physical class session. And here is big data approach also used in modern technology based education. Key words—online education, big data, course, physical, modern.

Introduction

With the use of technologies a lot of data is generate through smart phones, laptops as well as tablets with the use of these technologies online courses are also available on different web sites. Huge amount of data are created by user social network interactions, blogs, photos and search engines. Big data introduced in education as a new field. In online education system quizzes, assignments and exams are conducted online. The advantage of online education is increase the knowledge growth productivity. Online education may contain many physical files; it may be homogeneous or may contain data in various formats. Online education system is different from the traditional education system by the following characteristics.

1. Volume: The size of stored data.
2. Velocity: How much data is generated and can be access.
3. Variety: Data in which form or format.
4. Veracity: Data must be accurate otherwise it is worthless.
5. Value: How data can turn into value.

6. Variability: Data changing speed at which big data is loaded into database. For the processing of big data we should have faithful infrastructure to store and process it. An infrastructure should be scalable and fault tolerant.

Analysis Of Education On Big Data

In every second, internet creates data which explore the velocity, volume and variety in large amount data. Analytical process extracts the data value in terms of collection, organization and analysis on data sets. In analytical process data can be transfer in any place. Structured and non structured data sources give raw data process in both cases. Unstructured data can be accessed through social network communication. Students choose particular field according their interest.

Structural Big Data

Structural big data covers different points that are as below: Big data 6v properties consist on volume, velocity, value, variety, veracity and variability. Data types, data structure, data linking and provenance comes into data models. High performance computing, storage, network, big data infrastructure are the part of new tools and infrastructure.

Hadoop-as A Open Source

Hadoop is a free, Java-based programming framework that supports the processing of large data sets in a distributed computing system. Hadoop Distributed File System (HDFS) inspired Google File System (GFS). In a distributed Hadoop environment each part of data is stored on various computers. In Hadoop data is processed locally which minimize the network transfer. If anyone node is fail during data access then we can access data

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from other node. It is fault tolerant. In Hadoop environment MapReduce is a parallel processing framework.

Improve Education System

In education system must provide learning resources to enhance the learning performance in the way which is more active and convenient. To support the learning performance it should be more active with adopting the way to assess the sources of learning material. Data can be getting from different ways like social network cities surveys, newspaper etc. To explore the online resources the advantage of big data approach to support the process of learning so that you can get more benefit.

Conclusion

By having the experience of online education system we can say that it met the expectations of the students. After implementing the education system teaching or learning method becomes effective.