Big Data: Application in Libraries

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ABSTRACT- At an outstanding rate data is produced in modern life. Which leads to advances in data storage and analysis and the emergence of concept of Big Data.the present paper discusses definition of Big Data, characteristics of big data, Librarian skills and tools and the application of Big Data in libraries.

Keywords: Big Data, Libraries.

INTRODUCTION

Now a day's data is very important thing without data nothing is possible. Big data is nothing about the simply data that expands the processing ability of conventional database system and the data is so large and moving very fast or does not fit in database architecture.

Big data is huge amount of digital data or information collect by the government, private companies, social websites and many firms around us. We use a wide variety of big data applications every day. Often without even thinking of as big data applications. Face book, Google, LinkedIn and Tweeter are just a few of the applications that use large amounts of data of data to give us insights and keep us entertained.

Big data is generally from various sources such as sensors, devices, video/audio, network, log files, transactional applications, web and social media whose size or type is beyond the ability of traditional relation databases to capture, manage and process the data. Big data when analyzed allows users to make better and faster decisions.

DEFINITION

According to International Data Corporation(IDC):
 "Big data technologies describe a new generation of technologies and architecture designed to economically extract value from very large volumes of a wide variety of data enabling high velocity capture, discovery and/or analysis."

Another definition which describes big data is that it is frontier of firm's ability to store, process and access all the data which is needed to operate effectively, make decisions and serve customers.

"Big data is defined as a term for data sets that so large and complex that traditional data processing application are inadequate to do analysis, capture, store, data curation, sharing, transfer and so on."

"Big data can be as high volume, high velocity and high variety of information assets which demands cost effective innovative forms of information processing for enhanced insight and decision making."

CHARACTERISTICS OF BIG DATA

Big data can be characterized by 4vs
VOLUME:Big data is very huge in size, it is machine generated data produced in much larger quantities than non-traditional data depending on industry or discipline. This data is loosely defined data that cannot be stored or analyzed by conventional hardware and software. Traditional software can handle megabyte and kilobyte sized data sets, while big data tools can handle terabyte and peta byte sized data sets.

VELOCITY: Velocity covers the speed in which data is created. It generally created by social media platforms where a large influx of opinions and relationship management record is created. It is in high frequency for example Twitter data, Post and likes on FB etc.

VARIETY: Refers to many types and sources of data that can be structured or unstructured. Earlier the data used to be stored in sources like spreadsheets and database which now may be available in different forms like emails, photos, videos, monitoring devices, PDF's, audio. Due to this variety of unstructured data creates problems for storage, mining and analyzing of data.

VALUE: Refers to the source of big data. Whether it is reliable, accurate and complete. The electronic value of different data varies significantly. Typically there is good information hidden amongst a larger body of non-traditional data; the challenges is identifying what is valuable and then transforming and extracting that data for analysis.

VIABILITY: With so many varieties in data and variables to consider it is important to access the viability of data in order to build an effective predictable model.

VERACITY: Big data generates a lot of data and a variety of data. However the data must have quality and produce credible results that enable action to produce right decision making. The veracity determines the accuracy of the data.

Libraries and Big Data
Nowadays Libraries are offering online resources and services. Libraries are also using social media outlets Facebook an Instagrams to promo their services and programs. Librarians with the help of emerging technology and tools such analytics software are able to collect more online data, analyze them for adding value to their services. Thus Libraries can use big data to make better decisions regarding collection developments, updating public spaces and tracking the use of library materials (Bieraugel, Advance Learning Transforming Scholarship)

LIBRARIAN's SKILLS AND TOOLS

Librarians can be involved in Big Data by developing skills such as enable data discovery and data retrieval, maintain data quality through cataloguing, indexing, archiving. management, preservation and representation.They can make big data sets more useful,visible and accessible by creating taxonomies.(Big Data)

APPLICATION OF BIG DATA IN LIBRARIES

Big data analytics could be applied in the following areas of the libraries such as ,
- For superior search results-Data mining and text analytics on the past loan records and book

bibliographies could enhance search results and recommendations.
- Demand Analysis-It would help in forecasting demand for new existing titles.
- Planning library collection-The technology used would optimize to plan the category mix in the collection by taking into consideration the space and budget constraints.

CONCLUSION

The capabilities of Big Data has captured the attention of the world of Library. Librarians and Information professionals can play a big role in the universe of Big Data as they have skills, knowledge and service mentality to help Universities, business and Government. With the help of these powerful analytics which big data technologies offer librarians can look at the data in new ways thus adding value to different services and programs.

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