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#### Big Data!

We come across data in every possible form, whether through social media sites, sensor networks, digital images or videos, cellphone GPS signals, purchase transaction records, web logs, medical records, archives, military surveillance, e-commerce, complex scientific research and so on...it amounts to around some Quintilian bytes of data! This data is what we call as...BIG DATA!

Big data is nothing but an assortment of such huge and complex data that becomes very tedious to capture, store, process, retrieve and analyze it. Thanks to on-hand database management tools or traditional data processing techniques, things have become easier now. In fact, the concept of "BIG DATA" may vary from company to company depending upon its size, capacity, competence, human resource, techniques and so on. For some companies it may be a cumbersome job to manage a few gigabytes and for others it may be some terabytes creating a hassle in the entire organization.

#### The Four V's Of Big Data

- 1. Volume: BIG DATA is clearly determined by its volume. It could amount to hundreds of terabytes or even petabytes of information. For instance, 15 terabytes of Facebook posts or 400 billion annual medical records could mean Big Data!
- 2. Velocity: Velocity means the rate at which data is flowing in the companies. Big data requires fast processing. Time factor plays a very crucial role in several organizations. For instance, processing 2 million records at share market or evaluating results of millions of students applied for competitive exams could mean Big Data!
- **3.** Variety: Big Data may not belong to a specific format. It could be in any form such as structured, unstructured, text, images, audio, video, log files, emails, simulations, 3D models, etc. New research shows that a substantial amount of an organization's data is not numeric; however, such data is equally important for decision-making process. So, organizations need to think beyond stock records, documents, personnel files, finances, etc.
- **4. Veracity:** Veracity refers to the uncertainty of data available. Data available can sometimes get messy and maybe difficult to trust. With many forms of big data, quality and accuracy are difficult to control like the Twitter posts with hash tags, abbreviations, typos and colloquial speech. But big data and analytics technology now permits to work with these types of data. The volumes often make up for the lack of quality or accuracy. Due to uncertainty of data, 1 in 3 business leaders don't trust the information they use to make decisions.

#### Big Data Opportunities

#### Why is it important to harness Big Data?

Data had never been as crucial before as it is today. In fact, we can see a transition from the old saying...'Customer is King' to 'Data is king'! This is because for an efficient decision making, it is very important to analyze the right amount and the right type of data! Healthcare, banking, public sector, pharmaceutical, or IT, all need to look beyond the concrete data stored in their databases and study the intangible data in the form of sensors, images, weblogs, etc. In fact, what sets smart organizations apart from others is their ability to scan data effectively to allocate resources properly, increase productivity and inspire innovation!

### Why Big Data analysis is crucial:

- 1. Just like labor and capital, data has become one of the factors of production in almost all the industries.
- 2. Big data can unveil some really useful and crucial information which can change decision making process entirely to a more fruitful one.
- 3. Big data makes customer segmentation easier and more visible, enabling the companies to focus on more profitable and loyal customers.
- 4. Big data can be an important criterion to decide upon the next line of products and services required by the future customers. Thus, companies can follow proactive approach at every step.
- 5. The way in which big data is explored and used can directly impact the growth and development of the organizations and give a tough competition to others in the row! Data driven strategies are soon becoming the latest trend at the Management level!

#### How to Harness Big Data?

As the name suggests, it is not an easy task to capture, store, process and do big data analysis. Optimizing big data is a daunting affair that requires a robust infrastructure and state-of-art technology which should take care of the privacy, security, intellectual property, and even liability issues related to big data. Big data will help you answer those questions that were lingering for a long time! It is not the amount of big data that matters the most, it is what you are able to do with it that draws a line between the achievers and the losers.

#### Some Recent Technologies:

Companies are relying on the following technologies to do big data analysis:

- · Speedy and efficient processors.
- · Modern storage and processing technologies, especially for unstructured data
- · Robust server processing capacities
- · Cloud computing
- · Clustering, high connectivity, parallel processing, MPP
- · Apache Hadoop/ Hadoop Big Data

Got a question for us? Mention them in the comments section and we will get back to you.

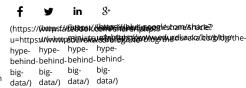
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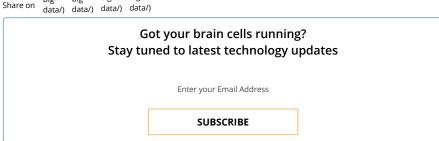
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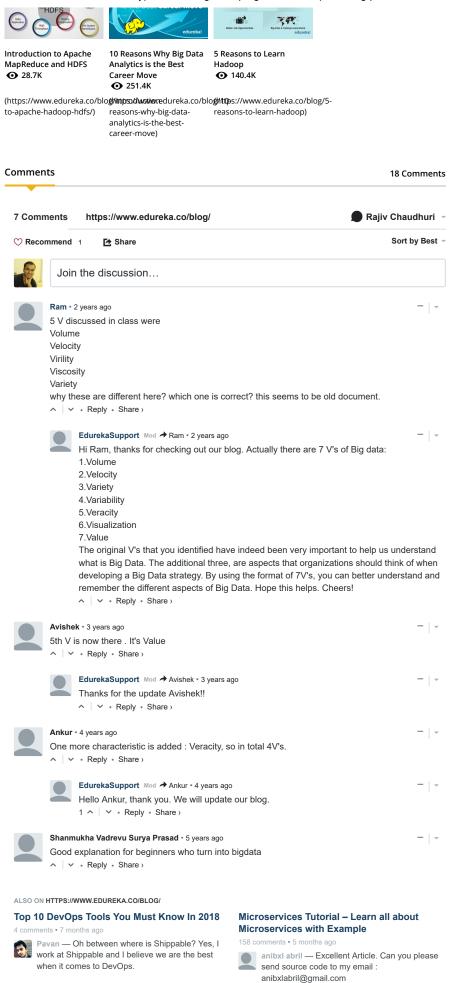


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