

Big Data: The geNext Frontier for Innovation

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ABSTRACT: We live in the fast world of technology where structured and unstructured data is generated every second. The workplace has entirely changed due to the advancement in the smart technologies and automation of existing processes. Today, data and multimedia content is easily available and shared on the move through social media networks, transactions, videos, images email and many more sources. Every person is available online round the clock through the smart devices and networks. Currently, the term big data draws a lot of attention from all over the world. It creates massive value for the world economy that helps to drive innovation, better growth and efficiency to make decisions. Big data technology is allowing companies to collect vast amounts of information about their customers at unprecedented scale. Large pools of data that can be taken together for visualization for decision-making in different areas of the business. This innovative platform provides more flexible analysis on data in greater volumes, velocity and variety or the world economy by reducing waste and increasing the quality of products and services. The objective of this paper is to explore big data analytics and to make more reformed decisions in all processes and to reshape the new era through information platforms.

KEYWORDS: Big Data, structured and unstructured data, decision making, smart technologies and information.

I. INTRODUCTION

As volume and value of information grows, an up-to-date data becomes progressively important and needs more security day by day. People and devices are continuously generating data from streaming a video to making in app purchases. Going back a few centuries, it is not possible to store the data at one place. Today, lot of the work is done on cloud from learning, paying bills to earning a living. Every work is being transformed by power of big data. More and more enterprises, large and small, are using the concept of big data for the betterment of their company and their customers [1]. The use of big data will underpin new waves of productivity growth and consumer surplus. Big data is making dramatic cost reductions, significant improvement in the reduction of computation and offering new services instantly. The way, the internet technology changed the psyche of the people in the last three decades, big data will change how we live, work and play over the next coming years. There is a huge challenge for the security of a big data [2]. Organizations are relying on multiple tools to prevent data from fraud and data loss. Secured data based servers in an organization based architecture can be a successful approach regarding big data. Automation frameworks for automate system configuration ensuring uniform and secure big data for enterprise. New technologies and new forms of personal communication are driving the big data sources i.e. the increase in the number of mobile users provides extremely powerful business intelligence for the companies [3].

II. BIG DATA: NEW WAVES OF TECHNOLOGICAL GROWTH

With the evolution of new information technologies, big data will result in dramatic cost reductions, substantial developments that will perform a computing task at a high speed and offer number of services to their customers. Terabytes and Petabytes of data is being generated, captured, processed, stored, and managed by the companies. Like traditional analytics, it can also support internal business decisions. Big Data is about the technologies and way of handling company's data that will store, process, and access all the structured and unstructured data. This data needs to operate effectively, so as to make decisions and will reduce the risks factors, thereby serving customers for the easy availability of the intelligent data when, where and by whom it's needed [4].

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Big Data insights the creative, competitive edge in the fields of

- ✓ Internet the Superhighway
- ✓ Business
- ✓ Healthcare
- ✓ Financial Services
- ✓ Communication technologies.
- ✓ Media and
- ✓ Advertising [5].

III. SOURCES OF BIG DATA

Big Data technologies are the geNext technologies. Data can come from a variety of sources and in a variety of types in the following ways:

- ✓ Social networking websites.
- ✓ Historical Data.
- ✓ Cloud and Web Servers.
- ✓ Life Science Experiments.
- ✓ Economy.
- ✓ Cloud computing.
- ✓ Data generated from infrastructure.
- ✓ Stock exchange.
- ✓ Molecular dynamic and simulation data.
- ✓ Statistical Data and many more.[6]

IV.5 VS OF BIG DATA: EXCITEMENT AROUND BIG DATA

1. **Volume:** In this technological era, data is generated every second. Social networking sites, YouTube, search engines etc. are producing the huge amount of data. This data base is too large to store in the traditional way. Big data gives the opportunity to store the large data base at one place with the aid of distributed systems in different locations connected by networks and software's.
2. **Velocity:** Every second of every day, data is increasing at a speedy rate. Data is uploaded and downloaded every second on internet. There is a big contribution of a web server that is actually maintaining all the processing speed.
3. **Variety:** From excel tables to databases, the structure of data has totally changed. Ranging from the endless streams of content available on internet, consumers and companies are capturing a more diverse set of data than ever.
4. **Value:** It is all well and good having access to big data but unless we can turn it into worth it is unusable. Value is the most significant 'V' of Big Data. Information has become biggest asset for each and every one. There is an immense opportunity offered by Big Data technologies to discover innovative visions that will drive significant business value in the future.
5. **Veracity:** It refers to thereliability of the data. Data is available in different volumes at a high speed is valueless if that data is incorrect. It causes a lot of difficulties for organizations as well as for the consumers. So, organizations must certify that the data available on their database is precise and the analyses performed on the data are up to date. [7]

V. ROLE OF CLOUD IN BIG DATA

With the advancement in innovations, Cloud comes with the superfluous power for every organization. Big data analytics and cloud computing are presently top of mind for organizations all over the world. Big data analytics promises their users to provide valuable insights that will create competitive advantage with the innovative revolutions. Whereas

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cloud computing has the potential to enrich the productivity while enabling greater competences and reducing costs. It stores enormous volume of data which represent a valuable source of information for the enterprises as well as for the consumers. Cloud computing provides support for Big data technology. This technology is growing rapidly and addressing obstacles to adoption with improvements in security and data integration [8]. Big data enforce large technological overheads in order to meet the processing, storage and availability of data on the move to their consumers. Number of servers needed that will support the tools that process the huge volumes, high velocity, and diverse formats of big data. Cloud environment is entirely suitable for this expansion. It is good platform for Big data as it allows to use the computing power and resources in an efficient manner. This resourcefulness will lead to an inexpensively grow at the pace of Big data growth.[9]

VI. FUTURE OF BIG DATA: IT'S A JOURNEY NOT A DESTINATION...

The future of the Big data is extremely huge. Today, we have more information than ever. Consumers need a speed that is increasingly evident in a new breed for this digital era that will cut all the barriers of cost. Big data technologies are entering into the realm of new digital age. Organizations are taking a big practical approach for Big data to provide better services to their customers. With the availability of low cost data storage and faster processing, the industry envisioned a more efficient and reliable enterprise [10]. Data volumes will continue to grow and the number of smart devices, internet-technologies such as 4G, 5G is expected to grow exponentially. This new world of data supports the organizations to move at a speedy rate from batch processing of Big data to real time. The industry leaders and the people who are fully involved in this platform are taking a full benefit of this technology. In the coming years, Big data will change the business world that will be the prodigious benefit to the society. This repository of data will join with machine-to-machine interaction, which will be the new fuelling wave of geNext [11].

VII. CONCLUSION

With the increase of the data volumes and the complexity of data that is collected and analysed, innovative software architectures have emerged for the 21st century that is called the Big Data. The technology and business professionals are working at their best to deliver top most services to their clients. They will create a flexible infrastructure that provides high-performance computing and governance in a deployment model for the ease of every ordinary customer. Cloud computing will play an important role in this technological revolution. In the coming years, Big data will empower an extensive array of preconfigured business solutions with an ocean of opportunities for better decision making to every industry that will that lead to real business value[12].

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