What is Big Data Analytics and Why is it Important?

There is no definitive definition for big data analytics, it is more of a concept. The concept of big data analytics has been around for years. Most modern and successful companies know how to use data that enters their business can be used to their advantage. These organizations can obtain significant value once you apply analytics to these chunks of data. This idea of using data to discover trends and find insights was even utilized many years ago. They used countless spreadsheets instead of the modern computer to discover and take advantage of these trends. The modern way of reaping the benefits of big data is more efficient than ever. “The ability to work faster – and stay agile – gives organizations a competitive edge they didn’t have before” - SAS Insights.

Big data analytics is important for three main reasons: The introduction of new products and services, cost reduction and, as mentioned before, faster and improved decision making.

Companies now have the necessary tools to monitor customer habits and needs using big data analytics. These organizations can find out what satisfies the customer so they can give them what they want. This is clearly a huge benefit to the customer as well as the business. Research from Tom Davenport “points out that with big data analytics, more companies are creating new products to meet customers’ needs”. Tom Davenport is the IIA Director of *Big Data in Big Companies*, which is his report on big data analytics. Davenport interviewed more than 50 companies to help better understand how they are using big data.

Cost reduction is possible with big data analytics as efficiency is increased. Typical processes needed for production such as testing and quality assurance can greatly affect industries like nanotechnologies and biopharmaceuticals. By using big data analytics, companies can make calculated and improved decisions as they discover the many issues they may face with their product. It also goes without saying that this saves time and energy.

The speed at which an important decision can be made using big data analytics is a huge reason why large companies can be up to date and successful in their respective industries. They are able to make game changing decisions to not only increase production, but improve the quality of production. “This gives them a competitive edge and provides a more agile framework for decision making and risk handling” - New Generation Application.

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Sources:

-SAS - <https://www.sas.com/en_ie/insights/analytics/big-data-analytics.html>

-*Big Data in Big Companies –* Tom Davenport

-New Generation Application - <https://www.newgenapps.com/blog/what-is-big-data-analytics-benefits-challenges/>

How Companies Collect Big Data:

“Collecting customer data has become a major priority for businesses” - IT Chronicles. It is possible for companies to establish and take advantage of trends using data and the capturing and use of this data has become increasingly efficient as the technology for it has developed and improved.

When ever you enter or use a website online, you are usually asked to consent to something called cookies. Well, this is one way in which companies collect your data. Cookies track activity on their respective website. Think of your cookie as an ID card. Each time you enter a website, you add to your “Cookie ID card”. Companies can use the information from these cookies to learn what sites customers most frequently visit and analyse this for their benefit. Businesses can also use this method to make their websites more practical and quick to purchase products from. They do this by recording your personal information so you don’t have to enter it multiple times each time you buy. Personalized ads can also be produced using the data in these cookies, e.g. if you are consistently searching for a new pair of running shoes, your “cookie” will record this data by analysing the sites you have visited and display ads for Nike, Adidas, Asics, etc.

Most companies will directly ask their customers for their data. This happens when ever you’re asked for your name, email address, home address or other information about yourself. This usually takes place after you purchase a product or subscribe to a service when you need to fill a form out. The company uses this information to send you ads and can use your name to personalize them. As mentioned before, companies can also store this information in cookies to use in the future.

Big data analytics also comes in the form of customer reviews. Many companies will insist on customers writing a review of the product or service the company had provided. Companies can use this information to improve the quality of their product or service.

One of the easiest ways in which companies can acquire your data is by simply searching through their own records. A companies customer interactions and transactions are filled with useful data which can be analysed to be used in to make business decisions. This can also be done using social media. “If customers use, say, their Facebook account to log into a third-party application that a company may provide” - IT Chronicles. Social media is open to anyone online so any data you post or share can be accessed by companies. This method is simple and effective for large companies.

Big data analytics has become so popular amongst many industries that there have been data companies set up to find, purchase and sell on customer data to other companies. An example of one of these companies is Acxiom. Acxiom is a company with one purpose: “Collecting, analysing and selling customer and business data for targeted advertising campaigns”. Another company who operates similarly is Oracle. Both Acxiom and Oracle acquire their desired data from smaller data companies or even government cesuses. The following is quoted from Oracle’s ‘AddThis Audiences: A Buyer’s Guide’: “*Collection Methodology: AddThis aggregates the online actions taken by unique visitors on every page across their vast publisher network. Our proprietary blend of observed (e.g., arriving on site from search, content on page, reading an article, scrolling, watching a video) and declared (e.g., click, like, share, follow, print) data yields a holistic picture of the true web habits, interests, and preferences users reveal when browsing online. We deliver unmatched audience insight and unparalleled audience segment quality at scale.”*

Acxiom has a similar ‘Buyer’s Guide’ which is full of information such as data types, and other data companies.

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Sources:

-IT Chronicles - <https://itchronicles.com/big-data/how-do-big-companies-collect-customer-data/>

-Indiana University - <https://kb.iu.edu/d/agwm>

-Acxiom - <https://www.acxiom.com/>

-Oracle - <https://www.oracle.com/index.html>