

Data science, a necessity for hr in the competitive business world



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The world is expanding so does the amount of data available in different fields. We are living in a 100% data based world. The world's technological capacity to store information has been doubling every 40 months. According to the World Bank (2012), everyday 2.5×10^{18} Byte of data is created. This raw data which is created every single day is referred to as Big Data.

According to Mckinsey Global Institute, Big Data can be defined as “ datasets whose size is beyond the ability of typical database software tools to capture, store, manage and analyze.” (MGI, 2015). The necessity to understand and explore the raw Big data gave naissance to the field of Data science. Data science can be defined as scientific approach used to derive knowledge and insight from the big and raw data to provide support for decision making. (Dhar, 2013, P. 64) Henceforth, Data science is the application of various technological tools such as algorithms and artificial intelligence to make derive meaning out the huge amount of data which cannot be explored or analyzed by mere use of human intellect or basic technological software.

The present article will investigate upon the data science and its necessity in the HR field, will shed light on some trends of data science, and will provide way through which data science can be applied in the HR field. Data Science as A Necessity For the HR field With the advancement of technologies and networks used by the organizations, the input of data and information has been of a huge load resulting in a necessity of enhancing its management. The chaotic state of raw data has been of a big struggle for the HR practitioners. The extraction and organization of data for decision -making or recruitment has been of a severe difficulty. For example, Resumes and Cover

letters enclose large amount of subjective and heterogeneous information, processing it by a mere human would certainly lead him or her to ambivalence and confusion. Data science has been really essential in different fields of management as it has to potential to assist in the prediction of employee behavior, supports the analysis of the workforce and Talent, provides evidence based solutions for HR planning and overall business strategy. Nowadays, all decisions have become rather data driven than past experience. According to Dr. Arup Barman, an Associate professor of Economics at the University of Assam, in all fields or phases of HR, data science has become the must to get higher, better quality, higher accuracy, and cost effective outcome. According to a report elaborated by Villanova University, Data science is a necessity to enhance the overall HR processes. It increases the quality of new hires as it allows the recruiters to be more analytical and to base their strategic thinking on tangible evidences derived and inferred from the big data. It improves the training and employee performance as data science provides accurate measurement of the effectiveness of a particular training.

Also, big data can support in understanding organizational phenomena such as employee engagement and retention. Data science gives the HR practitioner the ability to analyze real time information, get insight upon what is really happening within the organizational framework, and produce a robust manner to track employee performance and address matters to increase the latter or the engagement. Henceforth, Data science is a must in the turbulent and chaotic digital world of data. The overall HR functions would be based on scientific and rea-time evidence to support the quest of

thrive and success. Data science trends Data science has emerged to make the work of the HR practitioner easier and safer. It has enhanced the overall processes in terms of quality and safety of the outcome. The following section will outline some of the basic trends data science incorporates to be a valid and necessary approach in almost every field.

- Algorithms: Data science relies on both algorithms and machine learning to perform its tasks. Algorithms are very essential in the data science realm. Algorithms are defined as “ well defined computational procedure that takes some value or set of values as input to produce a value or set of values as output. An algorithm is thus a sequence of computational steps that transforms input into output“(Lisi, 2015, P. 23). Henceforth, the algorithm is deemed to be the way through which a data scientist designs a particular program to perform a specific duty. It is the language assimilated by a given program. Thus, the algorithm is the tool which transforms the raw data into a meaningful one.

- Predictive analytics: Data science has been used as a way to predict a specific outcome. The incorporation of predictive analytics to data science in the human resources field can lead into various successful outcomes. It can assist in the forecasting of trends in the Human resources industry. For instance, the incorporation of predictive analytics can be used to predict employee behavior at the workplace; more precisely, the application of predictive analytics can lead the recruiter to forecast the creativity of a particular candidate at the workplace based on the personality dimensions of the individuals.

- Artificial intelligence and machine learning: Data science has revolutionized the way data and information is perceived. The most prominent trend among others within the data science field is the artificial intelligence. Don't worry, machine are not taking over your job. The aim behind developing an artificial intelligence is the simulation of human brain with further computation ability (Russel& Norvig, 1995, P5). Researchers have striven to come up with a system that think and act rationally just like humans. Artificial intelligence is clustered into two types, the Narrow AI and the Strong AI (Searle, 1980, P. 418). An example for the first would be the google translator or your chess game, while for the second; an example would be SIRI, your iPhone assistant which is capable of doing several various tasks. In addition, since the artificial intelligence is design to mimic, imitate, or act like human brain does, it is capable of learning. The algorithms incorporated in the design of an artificial intelligence program are design to allow the machine to learn from its mistakes and experience. Data science uses in the HR field The major impacts and benefits data science brings to the business world are really effective in enhancing and polishing all kinds of organizational operations.

The human resources, being the heart life of the organizational functions, have received intense focus in terms of development and enhancement as asserted by the following blog. The field of data science promises several developmental opportunities for the human resources. Data science facilitates and ensures the selection of the most appropriate employees for the organization; the implementation of data science trends described above will support the selection of the best-fit candidate for the organization.

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Computers overcome the human weakness of biases; henceforth, it enhances the fairness of the selection process. It also facilitates the analysis of thousands resume in a really short amount of time. Accuracy of selection is enhanced through the incorporation of algorithms and machine learning techniques. Henceforth, talent acquisition can become more cost effective.

The implementation of data science in the field of HR can produce a better insight about the current and future employees. Data science brings about a more robust and evidence based way of decision making. Managers will rely more on tangible evidences rather than experience and gut feelings.

Tracking employee engagement, assessing organizational needs, or appraising the employee performance will come to be enhanced and be highly accurate with the incorporation of data science trends in the HR field. For instance, the implementation of predictive analytics can facilitate organizational processes by providing the opportunity to forecast employee behavior, foreseen through turnover, and successfully predict employee performance. The HR field, being sensitive to change, data science can help in designing a robust way to cope with the continuous environmental change at both internal and external level. Henceforth, data science provides a robust and resilient support for the strategic design within the organization. It emphasizes on the importance of deriving critical relationship from raw data which cannot be derived by a mere human. Data science has been vital to survival in the turbulent yet chaotic business world organizations strive to gain the competitive advantage within.

Data science brings about a robust and evidence based way to support decision making, enhance strategic thinking, and provides a better insight <https://assignbuster.com/data-science-a-necessity-for-hr-in-the-competitive-business-world/>

and understanding of both internal and external environment. Data sciences as well as its trends such as the algorithms, machine learning, artificial intelligence, and predictive analytics have become more of necessity in nowadays business world. The human resources field, being sensitive to change and decisive to the organizational success have brought about the necessity of incorporating data science to support its overall operations. The present article have discussed the necessity of data science for the HR field, provided major trends in the field, and highlighted several uses of the data science in the HR field.