Data Science and its Relationship to Big Data and Data-Driven Decision Making

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Abstract: *Companies are realizing that they need to hire data scientists, academic institutions are rushing to develop data science programs, and publications are promoting data science as a hot, even "sexy" career choice. However, there is a lack of clarity regarding the specifics of data science, and this lack of clarity may result in disillusionment as the concept fades into meaningless buzz. We argue in this article that it has been difficult to define data science precisely for good reasons. The fact that big data and data-driven decision making are two other important concepts that are also gaining importance is one reason. Another reason is that people naturally tend to link a practitioner's work to the definition of their field; This can lead to ignoring the field's fundamentals. We do not believe that it is of the utmost importance to attempt to precisely define the boundaries of data science. In an academic setting, we can debate the field's boundaries, but data science can only be of use to businesses if (i) its relationships to other important related concepts are understood and (ii) the fundamental principles of data science are identified. Once we accept (ii), it will be much easier for us to comprehend and precisely explain what data science has to offer. Furthermore, we won't be able to call it data science until we accept (ii).We present a viewpoint that addresses all of these ideas in this article. We conclude by providing a sample list of data science's fundamental principles as examples.*

Keywords: Big Data

REFERENCES

[1]. Davenport T.H., and Patil D.J. Data scientist: the sexiest job of the 21st century. Harv Bus Rev, Oct 2012.

[2]. Hays C. L. What they know about you. N Y Times, Nov. 14, 2004.

[3]. Brynjolfsson E., Hitt L.M., and Kim H.H. Strength in numbers: How does data-driven decision making affect firm performance? Working paper, 2011. SSRN working paper. Available at SSRN: http://ssrn.com/abstract = 1819486.

[4]. Tambe P. Big data know-how and business value. Working paper, NYU Stern School of Business, NY, New York, 2012.

[5]. Fusfeld A. The digital 100: the world's most valuable startups. Bus Insider. Sep. 23, 2010.

[6]. Shah S., Horne A., and Capella´ J. Good data won't guarantee good decisions. Harv Bus Rev, Apr 2012.

[7]. Wirth, R., and Hipp, J. CRISP-DM: Towards a standard process model for data mining. In Proceedings of the 4th International Conference on the Practical Applications of Knowledge Discovery and Data Mining, 2000, pp. 29–39.