

Incorporating Big Data Tools for Social Media Analytics in a Business Analytics Course

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Abstract

The age of big data drives the need for emerging technologies to enable scalable analytics on massive, rapidly generated, and varied data. It requires “data scientists” with deep knowledge of managing the six Vs of big data: volume, velocity, variety, volatility, veracity, and value. As a result of this trend, new analytical tools are being taught in business analytics (BA) programs to foster students’ development of this critical competency. In the era of big data, social media analytics has become an increasingly important topic. In this article, we present a social media analytics exercise that can be easily added to any analytics course or to any course in which students gain exposure to social media and big data technology. The case scenario is built upon using flu activity data on Twitter to extend the monitoring of flu outbreaks. Our analytics framework comprises temporal, spatial, and text mining. We demonstrate the use of IBM InfoSphere BigInsights – a Hadoop-based platform – for implementing our framework. The exercise guides students through a big data social media analytics journey that enables them to understand different aspects of social media as the main source for big data and develop skills in this emerging area. Our framework and the exercises are general enough to be used even if the instructor opts to use a different technology stack. The described approach was used in a class at a large university. At the end of the exercise, 27 students majoring in business analytics participated in a survey and expressed satisfaction with their learning process.

Keywords: Big data, Social media, Business analytics, Data visualization, IBM BigInsights

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