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Social media analytics for enterprises: Typology, methods, and processes

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Abstract This article provides an overview of social media analytics for managers that seek to utilize the practice for social media intelligence. Currently, managers are challenged to analyze an abundance of social media data but lack a framework within which to do so. Toward this end, this article presents a simple typology of social media analytics for enterprises. It also discusses various analytics methods for social media data. Then, this article discusses management processes of social media analytics for enterprises. An illustration of social media analytics is provided with real-world consumer review data. Finally, four challenges are discussed.

1. Social media analytics

Social media analytics refers to the practice of gathering data from social media platforms and analyzing the data to help decision makers address specific problems. Social media analytics have been used by a wide range of people, including social scientists, business managers, and medical professionals. Automated social media analytics is inexpensive and fast compared to traditional media analysis, via which data collection is oftentimes manual and the analysis is labor-intensive. The popularity of social media analytics surged when popular social media platforms allowed enterprises to access enormous amounts of customer data from their sites. Social media platforms focus on idiosyncratic groups of content creators and content consumers. For example, Twitter is a real-time information network that connects users and followers to the latest stories, ideas, opinions, and news. Likewise, Yelp is a site where customers publish unsolicited reviews and viewers read them. According to recent statistics (Mansfield, 2016), Facebook is the most popular social networking site, with over 1.79 billion monthly active users in 2016. Concurrently, the popular photo-sharing site Instagram enjoys 500 million monthly users, who share an average of 95 million photos and videos per day. For its part, the micro-blog hosting site Twitter has roughly 317 million monthly active users and generates 6,000 tweets per second (Mansfield, 2016).

Social media analytics can analyze social media data to obtain consumers' innovative ideas and enhance customer relationships. Many Fortune

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500 companies, from McDonald's to Pepsi to Marriott, have employed social media analytics in order to derive a competitive advantage. Multinational hospitality company Marriott International operates its own social media center, named M Live; here, about a dozen employees analyze Twitter feeds, Instagram photos, and Facebook posts in effort to engage clients in social conversations, increase the hotel chain's brand presence, and keep up with the latest trends (Golden & Caruso-Cabrera, 2016). Using a technology called geo-fencing, Marriott is able to monitor every public post on social media platforms made from within company properties . . . and reach out to those customers to prove that Marriott values them. In a similar fashion, the Coca-Cola Company operates a social media center called the Hub Network (Journey Staff, 2014), which deploys a suite of social listening, analysis, and engagement tools to deliver a better, faster, and more efficient response to real-time social media opportunities and issues.

Among many types of organizations, enterprises are the most active users of social media analytics. Analyzing social media data to better understand why customers purchase a product or service plays an important role in sustaining competitive advantage (Brooks, Heffner, & Henderson, 2014). Social media analytics equipped with advanced techniques has significantly affected a company's ability to leverage otherwise unattainable social media intelligence. Enterprises can better understand customer behaviors by combining intelligence acquired by social media platforms with traditional customer intelligence (Sigala & Chalkiti, 2015). According to marketsandmarkets.com (2016), the global social media analytics market will grow from $1.6 billion in 2015 to $5.4 billion in 2020 at a compound annual growth rate (CAGR) of 27.6%. The North American region is a leading revenue-generating region for social media analytics vendors, followed by Europe, with a high penetration of social media analytics in multiple industries such as manufacturing, healthcare, transportation, and logistics. Most of the major vendors of social media analytics solutions and services—including SAS, IBM, Oracle, Tableau, and Hootsuite Media—are located in the U.S.

A recent survey of business managers illustrates that social media analytics is viewed as an untapped opportunity, but much must be done to fully exploit social media analytics for consumer packaged goods (CPG) companies (Accenture, 2014). The same survey identifies marketing as the primary area of social media analytics. Companies recognize the value of social media analytics in innovation and product development, followed by customer service, operations, and strategy. Nearly half of the respondents indicated information technology as the department in which analytics competencies and roles are concentrated, followed by an analytic unit within departments and business units, and a centralized analytics unit at the enterprise level.

A variety of open-source tools, commercial toolkits, and proprietary platforms that provide simple standard analytics and customized social media analytics exist for enterprises. Using these tools, innovative managers are finding new ways of automatically collecting, combining, and analyzing data from social media to understand customers, manage customer relationships, and design new products. In our current technology-driven business environment, companies should plan their social media analytics efforts and revise them regularly. However, there exists a scarcity of typologies that may be used by managers to understand types of analytics and identify appropriate methods needed for analyzing content from social media.

In response to the growing interest by enterprises, this article presents a typology of enterprise social media analytics and highlights how its four categories of social media analytics—real-time competitive, non-real-time competitive, real-time customer, and non-real-time customer—can help companies develop social media intelligence. This typology incorporates time and market orientation perspectives and maps a wide range of social media analytics applications into four categories. I then provide a brief overview of social media platforms and discuss important characteristics of these platforms. This article also presents various methods for conducting social media analytics and a four-stage analytics process model. The four-stage analytics process represents the essential stages that facilitate the management of social media analytics. Next, an illustration of social media analytics is provided with the analysis of real-world consumer review data using sentiment analysis and a regression model. Finally, this article discusses the challenges that enterprises face in using social media analytics.

2. Typology of enterprise social media analytics

In this section, I use a typology approach to identify and systematically categorize social media analytics. Broadly speaking, typologies are generated through qualitative classifications rather than quantitative or statistical analyses (Hunt, 1991). While constructing the typology, I took five criteria into consideration: adequacy of phenomenon specification, adequacy of specification of classification