Chapter 109
Social Media Mining:
A New Framework and Literature Review

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ABSTRACT

Social media has gained a lot of importance in this modern high-speed world where people sprint to save every bit of time and money. Social media, considered "big data", is finding legitimate and practical uses in political campaigns, job applications, business promotion, professional networking, and customer service. The use of data mining social media is reshaping business models, accelerating "viral" marketing, and enabling the rapid growth of grassroots communities. In addition, organizations now rely on social media for interacting internally as well as externally. Industries from manufacturing to retail to financial services, rely ever-more heavily on the use of social media causing an exploding Social Media Mining (SMM) applications market with a growing list of software vendors and consulting firms all jockeying for position in this burgeoning market. This paper is intent on accomplishing a systematic presentation of the body of knowledge in the growing field of SMM.

INTRODUCTION

One of the most important changes brought upon by the Internet is the role that consumers play in our information-driven society. Explosion of Social media has tilted the balance in favor of consumers. Consumers are no longer bound by the traditional marketing messages that were tightly orchestrated by the corporations. Social media is the interaction among people creating, sharing or exchanging information and ideas in *virtual communities* and *networks*. It is defined as a group of Internet-based applications that build on the ideological and technological foundations of *Web 2.0*, allowing the creation and exchange of User Generated Content *(UGC)* (Wikipedia). With easy access to this UGC, consumers can get to the information about products and services when they want, where they want, and from sources they trust more than the corporations. This means that corporations now have a huge opportunity to turn this

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UGC into predictive insights to acquire customers, reduce customer churn, enhance life-time value, and explore new avenues for customer service and advocacy. Although there is growing evidence that such customer analytics is becoming important for organizational success, getting a holistic understanding of this field of social media and social media mining (SMM) has been difficult. Therefore, our focus in this article is to systematically present the body of knowledge in this growing field. Specifically, we present a framework for SMM and discuss its underlying sub processes, followed by a comprehensive review of 26 scholarly articles. Next, we discuss SMM in various industrial sectors and conclude by presenting managerial implications, benefits and challenges

What is SMM?

According to Hebert et al. (2014), Data is being collected by businesses at a rate never encountered before through web sources, cellular phones and social media. SMM is the process of extracting useful or actionable knowledge from this large-scale user-generated data from the realm of social media (see Figure 1). This knowledge can be used to improve business intelligence enabling companies to provide better services and develop innovative opportunities. To make vast amounts of social media driven UGC sensible and usable, SMM is required. As listed in Figure 1, there are several components of SMM, such as (1) Sentiment Analysis, (2) Electronic word-of-mouth (eWOM), (3) Web mining process, (4) Customer buying behavior, and (5) Risk Management. These components are analytical tools that capture raw UGC and convert it into actionable analytics. This analytics can enhance corporate revenue through customer loyalty and advocacy, help create profitable campaigns, and facilitate customer retention. Therefore, in this section, we discuss this framework in detail through existing literature review.

Figure 1. Framework for social media mining (adapted from: Gupta et. al, 2014)