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Social Media Analytics and Its Applications in Marketing

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Contents

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ABSTRACT

The rise of the Internet and smartphones in the 21st century has created and developed social media as an extremely effective means of communication in society. In life, business, sports, and politics, social media facilitates the democratization of ideas like never before. Social media content gives consumers different information sources that they must decipher to discern its trustworthiness and influence in their own opinions. Marketers must be savvy about using social media in their attempts to persuade consumers and build brand equity.

As social media has permeated our everyday lives, scholars in various disciplines are actively conducting research into this aspect regarding our way of life. In this scholarly endeavor, marketing has taken a leading role in this research endeavor as a discipline involving human communications and idea persuasion. Thus, rather than considering social media broadly across multiple disciplines, in this monograph, we concentrate on social media analytics in marketing.

This monograph comprises the following four sections:

- First, we provide an overview of social media and social media analytics (SMA). While much has already been said about social media generally, relatively less has been said about social media analytics. Thus, much of our focus is on SMA in terms of contributing to the current understanding of SMA in the field.

- Second, we concentrate on social media analytics in marketing. We discuss practical industry perspectives and examples, as well as recent marketing research by academics. Notably, we show how analytics may be used to address concerns about social media privacy and help detect fake reviews.

- Third, we summarize common tools for social media analytics in marketing. These methods can be complex, but they must be mastered for sound SMA practice. They encompass big data, artificial intelligence, machine learning, deep learning, text analytics, and visual analytics.

- Fourth, we discuss trends and a future research agenda. We also discuss how SMA might be better integrated into higher education.

1

Introduction

The rise of the Internet and smartphones in the 21st century has
created and developed social media as an extremely effective means of
communication in society. In life, business, and politics, social media can
facilitate the democratization of ideas like never before. The COVID-19
pandemic dramatically changed every aspect of human life worldwide,
including the roles of and our increased reliance on social media (Cuello-
Garcia *et al.*, 2020; Yu *et al.*, 2020).

Yet, even prior to the pandemic shifting lifestyles and jobs more
online, consider the following statistics: Techjury estimates that some
3.2 billion people worldwide are active users of social media sites: on
Facebook for 2 hours and 24 minutes a day, YouTube for 40 minutes,
Snapchat for 30 minutes, Instagram for 28 minutes, and Pinterest for 14
minutes a day (Deyan, 2021). Further, the recent incident of Facebook's
outage demonstrates the severity regarding our reliance on social media
in our everyday lives. The outage on Facebook (renamed Meta) and its
associated platforms (such as Instagram and WhatsApp) lasted only six
or seven hours on October 4, 2021. However, its impacts were significant
and memorable. During this outage, many users migrated to other social
media platforms such as Twitter, Gmail, and Snapchat, which created

slowdowns on those platforms. During the outage, Facebook's stock price decreased by nearly 5%, and Facebook is estimated to have lost at least \$60 million in its advertising revenues (en.wikipedia.org/wiki/ 2021_Facebook_outage).

Companies and brand teams aim to take advantage of this consumer time and engagement. Statistica.com estimates that 92% of U.S. companies (with 100 or more employees) expect to use social media for marketing purposes. Even small neighborhood retailers heavily rely on their business presence and promotions on social media sites (e.g., Amazon, Yelp, Tripadvisor). Therefore, marketers aim to gain the benefits of brand exposure, lead generation, fan loyalty, and online traffic on social media.

Given that social media has permeated our everyday lives, scholars in various disciplines are conducting research into social media phenomena. Marketing has taken a leading role in this research endeavor, given its strengths in understanding how human ideas and communications may be expressed and exchanged. For example, social media content gives consumers different information sources that they must decipher to discern its trustworthiness and influence in their own opinions. Marketers must be savvy about using social media in their attempts to persuade consumers and build brand equity.

Rather than offering a view with breadth but not depth on social media across multiple disciplines, this monograph focuses on the intersection of three closely related domains: marketing, social media, and SMA (see Figure 1.1). In other words, this monograph concerns marketing-based decisions related to social media and social media analytics (SMA) or social media and social media analytics from the perspective of the marketing discipline. Even social media in marketing has breadth and depth that are too broad and too deep for a single monograph. In SMA, we emphasize the roles of data and tools in tackling marketing problems. In marketing applications within the context of SMA, we discuss not only current problems, but also trends and future directions. We hope that the basic approach of this monograph can help both marketing practitioners and academics better understand how to use marketing analytics to identify the common patterns and trends produced by consumers and firms (Iacobucci *et al.*, 2019).
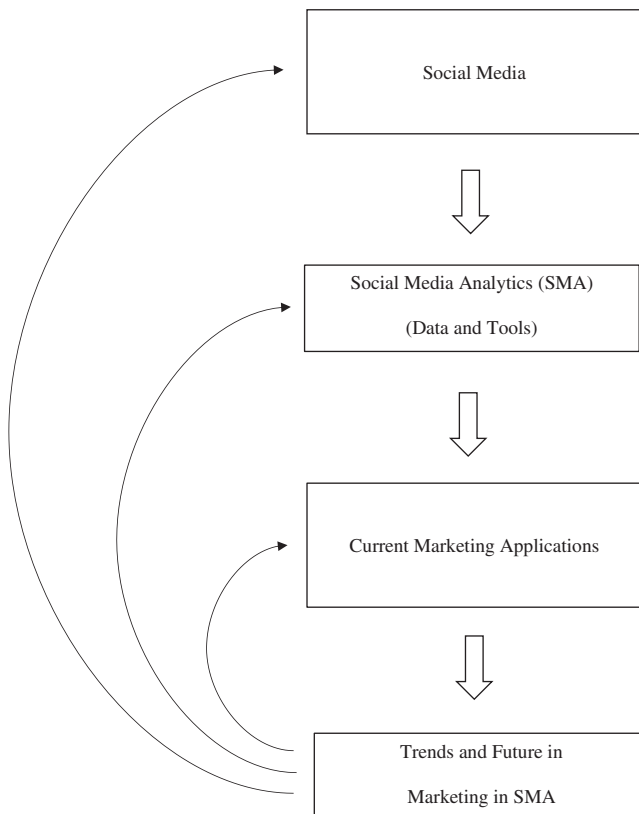
Figure 1.1: The scope of this monograph at the intersection of social media, SMA, and marketing.

To this end, the monograph is organized as follows. First, we describe the general state of social media and SMA. We offer both practical and theoretical perspectives. In particular, we propose a four-step SMA framework called AAVF (Acquisition-Analysis-Value-Feedback) based on our examination of some existing frameworks and processes for SMA.

Second, we examine social media *analytics* (SMA) particularly within marketing as a collection of tools and methods used to unearth the practical values of consumer and brand data. Plenty has been said about social media, but we endeavor to provide more insights into SMA. We focus on SMA in marketing or marketing in SMA to tackle marketing questions and obtain insights about consumers and brands.

As an example, we discuss how SMA has been used to detect fictitious reviews on products out of a large volume of such product reviews posted every day.

Third, we show how common methods for SMA have been utilized for common marketing problems. Some common SMA methods encompass the analysis of big data, text analytics, visual analytics, artificial intelligence (AI), machine learning (ML), and deep learning (DL).

Finally, we discuss trends and future research topics for SMA, particularly within marketing. We also explore how SMA is being taught in colleges and universities to educate students interested in SMA. We hope that this emphasis can help illuminate how social media may be used for the greater good of society.

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