Current Issues in Social Media and Healthcare Technology

Rochelle Rosen
Brown University Medical School
RRosen@Lifespan.org

Beth C Bock
Brown University Medical School
Beth_Bock@Brown.edu

Abstract

The digital revolution has changed the way we approach healthcare at all levels from the micro to the macro. These changes include diverse forms of social media and a growing interest in understanding the benefits and limits to social media applications in the health care context as well as the motives and expectations of patients and health professionals [1]. The Social Media and Healthcare Technology mini-track presents research papers addressing the broad range of social media use within healthcare and healthcare research; including methodological, conceptual, and research design issues, the influence of social media on healthcare choices, and the use of social media by providers and institutions.

1. Introduction

Social media continues to change the way healthcare organizations, consumers, and clinicians interact. Over 40% of individuals responding to a survey in the United States reported that information found on social media affected the way they approached their health care [2]. Recent research by the Pew Institute suggests that the growing popularity of social media in health care is driven by the widespread use of social media, and the growing desire for patients, particularly those with chronic illness, to connect with each other [3].

Social media impacts the way people interact with information, including health-related content. Although most patients continue to prefer in-person contact with their health care providers, online resources including social media, are an increasingly important tool for many patients. Information is posted on social media by a wide variety of users who represent diverse sources. Posts can represent personal experiences—such as when an individual rates a doctor or tells of a personal illness experience—but also institutional voices— such as when a hospital or research organization maintains a Twitter account or Facebook page. How do users interact with and evaluate information from this diversity of sources? How does a user decide what information posted by on social media can be trusted or what information may be inaccurate, misleading or out of context?

Conflicting opinions have stirred controversy about if and how medical professionals should use social media platforms in their work. Skeptics of social media in healthcare cite the potential for mis-information, conflicting advice, and unprofessionalism as evidence that social media is not an appropriate medium on which to share healthcare information [4]. Some argue that social media has no place in healthcare, while others claim that the open sharing of information enabled by social media could revolutionize accessibility to medicine. Therefore, health care professionals and organizations must increasingly provide information via social media that can accurately inform and engage consumers about health-related issues [5].

Social media can amplify both positive and negative word of mouth, making it an important channel for health care organizations seeking to attract and retain patients. For example, a recent study showed that 41% of people said social media would affect their choice of a doctor, hospital, or medical facility [2]. Hospitals, physicians and other health care organizations must develop policies about how they handle their presence on social media to increase the reliability of the information presented and avoid marketing mistakes that may lead consumers to distrust the information provided on their site.

Research in this rapidly developing field must address key methodological questions. Among these are: What constitutes an appropriate social media data set? How is social media data appropriately accessed? What human subjects, or ethical guidelines inform the use of data obtained through social media? What analytic strategies and theories are ideal for analyzing these data? The seven papers presented in the 2019 HICSS Social Media and Health Care mini-track include data derived from social media forums, rating websites, and popular platforms like Twitter. These papers discuss analytic strategies that include natural language processing, social exchange theory, and content analysis.

The paper by Huang and Long examines factors that facilitate members of online forums to provide support for people seeking help with quitting cannabis. These investigators used natural language processing and machine learning techniques to generate variables needed for hypothesis testing. Their findings indicate that distinct characteristics of the discussion subject lines and the messages that initiate a discussion thread are both predictive of the degree of social support users receive from others on that social media platform.

Two papers explore the use of physician rating websites (PRW); first examining the perspective of those who would use these websites to guide their physician choices and then from the point of view of individuals who provide such ratings. Kordzadeh's research indicates that perceptions of reviewer credibility as well as perceived integrity of the website host were both important characteristics that had differential effects on consumer's future intention to use PRWs. The paper by Haug and Gewald uses social exchange theory to examine motivations from the rater's point of view regarding why people would take the time to write and post a review on a PRW. Additional work by Dr. Sun and colleagues demonstrates that the introduction of a patient app channel had a positive effect on physician responses within an online health community.

Twitter remains an important player in social media and is increasingly playing a role in healthcare. In this session two papers explore the use of Twitter. One paper shows that while Twitter is increasingly used by healthcare organizations, there is a discordance between the frequency and public health burden of disease and the topics chosen by organizations as they write their Twitter-feed. In essence, the most pressing issues in public health are not addressed with a frequency reflective of their level of threat to public health. The paper by Brunner et al. examines common threads detected within tweets by people with traumatic brain injury. Together these papers may help to inform the design and analysis social media research through the twitter platform.

Finally, Shahbazi and colleagues examined the use of a variety of social media platforms among geographically diverse college populations. Results suggest that while pro-social messages are far more prevalent than negative messages (e.g., "bullying"), cyberbullying was associated with messages seeking emotional help. These authors discuss the uses of social media for real-time tracking of student mental health needs.

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