Chapter 72

Employing a Mixed Method to Explore Mobile Social Media Users' Big Data Privacy Concerns

Kenneth C. C. Yang
The University of Texas – El Paso, USA

Yowei Kang
Kainan University, Taiwan

ABSTRACT

Since its introduction in the early 21st century, mobile social media have played an indispensable part in contemporary human experiences. The convergence of social networking and mobile technologies and services creates a fascinating circumstance because the pervasive nature of mobile social networking technologies has impacted on users' privacy. The chapter employed a mixed research method to collect and analyze mobile social media users' experiences and privacy concerns in the age of Big Data. A total of 57 participants were included in this study. Collected data was analyzed by examining mobile social media users' experiences and their concerns over privacy. Findings from this study showed the rising concerns over personal privacy as a result of convergence of mobile social media and Big Data practices by the advertising industry. Theoretical and practical implications were discussed.

INTRODUCTION

Mobile Social Media: An Emerging Advertising Platform

Since its introduction in the early 21th century, mobile social media have played an indispensable part in contemporary human lives. Mobile social media (such as Twitter, Facebook, and MySpace) can be accessed through texting, calling, or using mobile Internet networks that are currently available at many hotspots (Salehan & Negahban, 2013; Varnali, Toker, & Yilmaz, 2011). Emerging mobile social media

that have attracted advertisers' attention include Facebook, Twitter, Google+, and other smartphone-enabled mobile apps (Dlamini, 2008; Kaplan, 2012). Facebook has launched in May 2014 its mobile advertising network, The Facebook Audience Network, to better target consumers through the analysis of their demographics, interests, and social media behaviors (such as "likes") (Delo, 2014; Parsons, 2015). In his speech to f8, Facebook CEO Mark Zuckerberg said, "The mobile ecosystem needs a way to deliver these native personalized ads to people" (cited in Delo, 2014, para. 4).

Recent trends in multi-platform advertising have augmented the importance of social media and their mobile counterparts in advertising campaign planning by integrating these emerging media into generating consumer engagement and participation after watching traditional 30-second commercials (Wong, 2010). Ad spend in social media is expected to reach $8.5 billion in 2014 and $14 billion in 2018, according to a recent data from BI Intelligence (Hoelzel, 2014).

The rosy prediction that many advertisers share is often attributed to the number of mobile Internet connections that have grown exponentially after the launch of Apple's I-Phone in 2007. Presently, there are 234.18 million mobile Internet users in the United States. The number is expected to increase to 325.24 million in 2020 (IBISWorld, 2014). Thanks to the drastic cost reduction of mobile broadband access, it is expected that mobile social media population will increase. Lee (2013) concluded the convergence of smartphone and social media has permitted users to access their Facebook, Twitter, and other social media anywhere and anytime. Lenhart, Purcell, Smith, and Zichuhr (2010) found that 81% of adults between 18-29 years old and 63% of adults between 30-49 years old use wireless Internet. A recent Pew report found that 58% of American adults own a smartphone that provides easy and ubiquitous access to social media. The report also found that 60% of mobile phone users access the Internet through their mobile device (Pew Internet Research Project, 2014). Increasingly, more and more people are accessing their social media platforms through these mobile devices. However, tablets, smartphones, and Wi-Fi laptop computers are often intrusive, location-based, and pervasive with their ability to reach a person at any time and any location by creating an encompassing communication environment.

Mobile Social Media and Big Data

Users of mobile social media, either knowingly or not, have been generating a large number of personal data. Those who use social media such as Google+, Facebook, and Flickr through their mobile devices often produce geo-tagged consumer information that can be part of business' Big Data databases (Hjorth, 2013; Smith, Szongott, Henne, & von Voigt, 2012). The data collected from mobile social media are potentially location-based and -sensitive. As a result of Big Data analytics, location-based services and devices have enabled advertisers to offer highly context-aware and personalized services through users' mobile communication devices (Dhar & Varshney, 2011).

The concept of Big Data refers to "bigger and bigger data sets over time" (Mahrt & Scharkow, 2012, p. 22). Its massive size often implies the dataset has large, more varied, and complex structure, accompanied by difficulties of data storage, analysis, and visualization (Sagirouglu & Sinanc, 2013). Big Data are defined as "high-volume, -velocity and –variety information assets that demand cost-effective, innovative forms of information processing for enhanced insights and decision making" (Gartner, cited in Pavolotsky, 2013, p. 217). Watson and Marjanovic (2013) concluded that Big Data have the following attributes: extremely high volume ("amount of data"), variety ("range of data types and sources"), and velocity ("speed of data in and out"). On the basis of the technical attributes of Big Data, Manyika et al.

19 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/chapter/employing-a-mixed-method-to-explore-mobile-social-media-users-big-data-privacy-concerns/149562

Related Content

Lightning and Storm Type in Central Alabama
Morgan Willisand Jason Senkbeil (2017). *International Journal of Applied Geospatial Research (pp. 30-46).*
www.irma-international.org/article/lightning-and-storm-type-in-central-alabama/186781

Mapping the Hopi Landscape for Cultural Preservation
Saul L. Hedquist, Stewart B. Koyiyumptewa, Wesley Bernardini, T. J. Ferguson, Peter M. Whiteleyand Leigh J. Kuwanwisiwma (2015). *International Journal of Applied Geospatial Research (pp. 39-58).*
www.irma-international.org/article/mapping-the-hopi-landscape-for-cultural-preservation/121570

VGI in the Geoweb: An Experiment to Test Data Reliability
Michael Buzzelli, David Brown, Kenwoo Leeand Justin Mullan (2017). *Volunteered Geographic Information and the Future of Geospatial Data (pp. 65-75).*
www.irma-international.org/chapter/vgi-in-the-geoweb/178799

The Use of the Terrestrial Photogrammetry in Reverse Engineering Applications
Naci Yastikli, Zehra Erisir, Pelin Altintasand Tugba Cak (2015). *International Journal of 3-D Information Modeling (pp. 48-57).*
www.irma-international.org/article/the-use-of-the-terrestrial-photogrammetry-in-reverse-engineering-applications/138262

Data Mining Location-Based Social Networks for Geospatial Discovery
Edward Pultar (2013). *Geographic Information Systems: Concepts, Methodologies, Tools, and Applications (pp. 2006-2019).*
www.irma-international.org/chapter/data-mining-location-based-social/70547