

CHAPTER ONE

A-Z OF SOCIAL MEDIA RESEARCH: AN OVERVIEW

Precious Chibuike Chukwuere

School of Nursing Science, Faculty of Health Sciences, North-West University, South Africa
chibuikeprecious45@yahoo.com

CHAPTER OBJECTIVES

- Overview of A-Z social media research.
- Understanding social media research.
- Types of social media research.

ABSTRACT

This handbook chapter focused on presenting an overview of A-Z social media research methods for scholarly research. Social media continue to draw attention from all walks of life with people maximizing the associated vast opportunities. To understand social media research, it is imperative to delve into the modern social media research methods, which are rooted in scholarship and developed in line with digital media. To that effect, it is necessary to understand that it is the persistent proliferation of social media usage that gave rise to social media research. On that premise, this chapter gave an overview of information on social media and further elaborated on “understanding social media research” and the types of social media research methods.

Keywords: Methods, Research, Social media research, Social media, Types of social media

OVERVIEW OF SOCIAL MEDIA

It is an exciting moment thinking about the advancement in the social media space and the numerous scholarly research opportunities it presents. Such advancement has given rise to so many areas of social media writings and publishing journals for example; Communication and Society, social media and society, and journal of computer-mediated communication. Social media continues to draw attention from all walks of life with people maximizing its presenting vast opportunities. To understand social media research, it is imperative to delve into the modern social media world. To that effect, it is necessary to understand the persistent proliferation of social media usage that gave rise to social media research. Despite social media being a recent development, research into the use of networking technologies by people as a tool for interpersonal communication has been in existence in time past. Scholars such as Barry Wellman in the 1980s were already curious about understanding the nature of sociality in what was widely accepted as ‘computer-mediated communication’ which includes internet-based networks though not covered in this book. The researcher began to delve more into online community research in the mid-1990s due to the growth in the number of internet users. This gave rise to discussions and emphasis on continuity of offline

relationships and attitudes of internet users on the need for discontinuity and amplifying the need for social media context (Hjorth & Hinton, 2019). Notwithstanding the already made headways in online community research which paved way for social media research, it is not worthy to neglect the giant strides made by Wellman and other scholars. Key studies into the ways people use information technologies were first conducted by Wellman, who was among scholars to argue on the importance of offline factors in online communication.

There has been a sporadic rise in interest of researchers into the nature of online communities giving rise to various questions regarding what is unique about the internet and the online community. The emergence of social media has further raised the eyebrow with different schools of thought with many scholars believing that it is part of refinement in control. While some see it as democratizing, empowering, and emancipator in all, social media digitalizes, the social lives of its users. With the digitalization of users' social lives, it renders the personal statistics of its users into binary digits which circulate in the global digital communities at an unimaginable speed (Hjorth & Hinton, 2019). With such high circulation of digital information in the global communities, it amounts to the subjection of humans into information society control mechanism and that speaks huge volumes about the human control system since the inception of the industrial revolution. Notwithstanding the persistent spread of social media and its vast research opportunities, there are still challenges regarding what is the “formal definition”, because many scholars believed that it is still evolving (Ellison & Boyd, 2013).

Many scholars believe that social media definition should be context-specific and dynamic to accommodate other disciplines such as health sciences, humanities, social science, etc. Social networking sites (SNSs) and online social networks (OSNs) are related to social media hence the two were more predominant as common terms among journals, media releases, and monographs including among disciplines such as sociology, computer science and communication between 2003 to 2008. But things got a turn from 2009 to 2014 with more scholarly works adopting the term social media which can be attributed to social media being a broader term as it accommodates concepts such as blogging. Blogging is more concerned with building social connections and not merely information broadcasts (Sloan & Quan-Haase, 2017). To that effect, Kaplan and Haenlein (2010) defined social media as “. . . a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content”. Social media constitutes websites of communication that enhance forming of relationships between users irrespective of their background, religion, or social structures. Its users can connect with people from both far and near with the opportunity to share ideas and content (Kapoor et al., 2018). Social media encompasses platforms such as WhatsApp, Instagram, Facebook, Pinterest, and Twitter (Sloan & Quan-Haase, 2017). It is distinct from other forms of media because of its uniqueness in sociality.

The widespread social media usage has been promulgated by the increased influx of smartphones, tablets, iPads and other internet-using technologies. Social media promulgation

in society and its usage has forced people into adapting to a new version of reality where the bulk circulation of information and entertainment does not depend on institutions alone rather anyone can at any time disperse news. It is widely believed that the continuous usage of social media is influenced by the attitudes of people in the use of mobile devices such as smartphones which increase their readily access to social media apps for searching for information, sharing text messages, pictures, and ideas (Sloan & Quan-Haase, 2017). To that effect, social media platforms and their sporadic spread in society have penetrated deep into the lives of humans with great impacts on their daily interactions and generally their daily lives, institutions, and professional space while paving the ways for viable research areas (Van Dijck & Poell, 2013).

Owing to the vast opportunities presented by social media space, it fosters avenues for the development of new strategies for research data collection, data analysis, and data visualization tools including developing and refining web and mobile applications. Further, social media produces a large volume of data and is flexible which portrays its huge research advantages (Kitchin, 2014). Such juicy avenues create more grounds for scholarly exploration into social media research programmes and pave ways for the incorporation of large volumes of data and wide opportunities for new knowledge. Researchers and stakeholders globally have begun maximizing the vast opportunities of social media including people from various disciplines such as computer science, sociology, nursing, and other health sciences, this is evidenced by various scholarly publications (Kapoor et al., 2018). Duggan et al. (2015) also maintained that social media research is still new to scholars around the world. Social media research emerged because of the emergence of social media technologies and the rise of their usage. Thus, little is known regarding the quantity of qualitative, quantitative, or mixed method research published in that perspective (Snelson, 2016). Nor vast understanding of the process of selecting the suitable research design, data collection techniques, and process of data analysis. To that effect, this handbook is focused on adding voice in clarifying social media research methods for in-depth understanding, for scholars.

This handbook on A-Z Social media research methods presents an exposition on the methods for conducting social media research that is worthy of use by researchers. This chapter provides holistic information on social media research methods with an exclusive explanation of an *overview of social media, understanding of social media research, and types of social media research methods* for an in-depth understanding of the authors. Following the vast debate on social media research by different authors, Sloan and Quan-Haase (2017) argued that social media application should be seen as an important part of human society. Data for social media research can be readily obtained from social media space hence it is derogatory to assume that social media data are embedded in space. Meanwhile, Social media users' daily interactions can be deemed to have a link with their daily engagements including the link to other events that are happening outside social media space. To a large extent, social media interactions and engagements are seen to be produced in users' political, social, historical, health service providers, and economic spaces. Therefore, a researcher should take

cognizance of the above concepts in adopting social media research methods or in carrying out social media research (Sloan & Quan-Haase, 2017). This handbook on A-Z social media research methods is believed to be of crucial importance owing to its expository concepts on social media research methods.

UNDERSTANDING SOCIAL MEDIA RESEARCH

Social media platforms are used by people in socializing and sharing a wide range of information on a daily basis. In teaching, social media usage has proven a high level of usefulness in innovative teaching and lecturing across disciplines including research (Peck, 2014). Across other disciplines such as in nursing science, social media platforms have brought improvement in student and nurse practitioners' communication, understanding of health care policies, professional ethics, and professionalism (Schmitt et al., 2012). Further, social media facilitates access to a handful of information for nurses and other healthcare practitioners, individuals, educational institutions, and organizations (Barry & Hardiker, 2012). University students across all disciplines are maximizing the opportunities presented by social media in actualizing their educational goals including in the acquisition and sharing of knowledge among students and people from all walks of life (Chukwuere & Chukwuere, 2017). Hence, social media is not only an emerging technological platform or cultural trend but rather a new means of communication that is tremendously altering organizational and institutional communication processes, including the professional and individual process of communication globally.

Economy-wise, research has it that social media contributes to the growth of countries' economies, promulgates unity among friends, and fosters the making of new friends both in schools and working places (Chukwuere & Chukwuere, 2017). On that premise, the emerging values of social media are not negotiable hence providing vast research opportunities. Notwithstanding, social media usage can be addictive, especially to youths and students (Mingle & Adams, 2015). This is in line with the report by Chukwuere and Chukwuere (2017) revealed that a larger population of their study sample was addicted to social media and exposed people to a series of female violence owing to travelling distance to meet social media friends.

Among the common and readily used social media platforms such as Facebook, Twitter, Instagram, and the rest of them came after previous computer-mediated communication (CMC) which in past allowed for many-to-many communication. However, scholarly research interest has developed in the past decades on the premise of the growing nature of Facebook, Twitter, Instagram, and others (Lomborg, 2017). Facebook, YouTube, and Twitter are considered the top 10 most visited social media platforms with high service standards which is gaining the attention of scholars (Alexa, 2015). Snelson (2016) further confirmed that social media research has been attracting numerous scholarly attention, which is obvious, owing to the increasing literature and ever-expanding literature reviews covering different aspects of social media research.

Social media platform such as Facebook has their users running over a billion whereas Twitter users have increased over 600 million boasting over 500 million tweets daily according to Statistic Brain as cited by (Ottoni et al., 2014). Meanwhile, other technology companies are working tirelessly in expanding their internet space to increase their chances of attracting more users, increasing their brand name, and placing their name in a better position globally. To that effect, companies like Instagram which started existing in 2010 has seen their users increase by over 150 million. This Instagram allows users to share pictures among themselves to the general public (Bakhshi et al., 2014). Owing to this steady growth, there is a need for social media research methods that can foster the collection, storage, and analysis of this bulk of data emanating from the social media space. On that premise, the quantity of naturally emanating information on various topics such as climate change, health-related, political issues, social issues, or business-related in circulation on social media space, should be harnessed. Townsend and Wallace (2016) concur that social media space is an avenue that provides huge space for researchers in gathering readily available data at no or little cost.

In addition, social media has opened up room for numerous questions and debates across disciplines both in the aspect of the methodology. The emanating questions further cut across the issues with regards to ethics and question of scales. Questions with regards to social media research methodology arise from the issues of identification of participants, sampling, data collection, data analysis, and visualization of data arising from social media. Despite that, the majority of social media methodological questions are about platforms specific whereas others are general to all forms of social media platforms. Social media most times presents researchers or scholars with an easy and accessible large volume of data. Meanwhile, it could be difficult or nearly impossible to get hold of some needed social media data by researchers which might frustrate research at that point. On the ethical questions, organizing and adoption of social media data have led to numerous ethical debates owing to issues about confidentiality, authenticity, accountability, and privacy. Despite the public availability of social media data, issues of ethics are not to be neglected and hence should be prioritized. The issues about respondent consent forms have been a point of debate owing to the presumed ignorance of the respondents regarding the use of their data by the researcher (Beninger et al., 2014). To that effect, issues regarding ethics in social media cut across the use of big and small-scale studies and should be prioritized.

On the question of scale, social media researchers are faced with the task of overcoming questions of scales in social media research methodology owing to the reliance on the quantity of data. Researchers adopting social media methodology examine the different phenomena from various areas of study which exposes them to both big and small data. This handbook strictly focused on addressing issues related to A-Z of social media research methods.

TYPES OF SOCIAL MEDIA RESEARCH METHODS

Understanding social media research necessitates bearing in mind the increased evolution of new social media platforms and a steady influx of information. As new social media platforms are emerging, some are also closing down or integrating with flourishing companies to form a stronger platform (McKie & Ryan, eds., 2015). The existence of social media platforms tends to modify their interface, adding or removing central features, which affects the type of services they render. Social media companies can sometimes affect changes at their 'back end. Different social media research methodology has emerged in the past owing to the growth of various disciplines in social media research (Hjorth & Hinton, 2019). To that effect, this handbook covered a series of social media research methodologies that were deemed important across disciplines. In line with three fundamental research typologies, social media research can be conducted through the adoption of qualitative research, quantitative or mixed method types of research. Given the vast quantity of data obtainable from social media platforms, the researchers in this handbook believe that qualitative, quantitative, and mixed method research methods are all suitable for conducting social media research. In this handbook, the researchers only explained research designs under the qualitative social media research method.

Qualitative social media research method

Qualitative research method presents a researcher with the avenue to explore or describe the perceptions, views, or lived experiences of participants (Creswell, 2014; Creswell & Plano Clark, 2011). The qualitative social media research method enables researchers in exploring participants' perceptions, views, opinions, or experiences thereby gathering non-numerical data for analysis. The adoption of qualitative social media research method enables researchers to probe research questions for an in-depth understanding of the phenomenon. Conducting qualitative social media research requires careful thought and planning to ensure the gathering of accurate data for the study. The qualitative social media research method enables a researcher in establishing a direct dialogue with the participants either through Facebook messenger voice or video call, WhatsApp voice or video call, over the telephone, through emails, across Skype, online surveys, and many more to answer research questions for a study. The researcher can be able to actively listen to the participant during the dialogue to generate in-depth data for the study. Qualitative social media research, depending on the tool for data collection such as email messages, could allow respondents to give a broader response to research questions for in-depth and broad research data.

The collected data are best analyzed qualitatively to arrive at the participant's authentic meanings ascribed to the research questions. The qualitative social media researchers adopt different designs in realizing the objectives of the study. The following designs could be adopted in qualitative social media research method; *qualitative digital ethnography research design, qualitative experimental design, qualitative observational design and qualitative survey design*. The qualitative social media research method generates a range of narrative, observational and visual data from social media spaces. These data can be analyzed

qualitatively by adopting content and thematic analysis technique to actualize the objectives of a study.

Qualitative digital ethnography research design

Digital ethnography researchers are primarily interested in describing the experience of their respondents that are using social media in their day-to-day living or enabling research respondents to respond to research questions through social media platforms. Researchers doing digital ethnography research has no intention to generalize their study finding or give an explanation for the bulky structures of social media networks. Rather, they are more concerned with carrying out a “thick” description of the respondents’ experience by engaging them in interviews, observations, and engaging themselves amid the online communities to have comprehensive data for the study (Hjorth & Hinton, 2019). An ethnographic researcher has a world view that the respondent's experience is “unique” hence they endeavour to obtain authentic information regarding the lived experience of their respondents instead of mere provision of a general summary of their experience which might not capture the respondent's general experience. Hjorth and Hinton stressed that researchers adopting digital ethnographic research design entails the acknowledging the fact that digital is a part of many people's daily life in contemporary society. Ethnographers believe in understanding and describing human experience hence the need for the digital elements to be understood and properly described. Pink et al. (2016) maintained that ‘we are interested in how the digital has become part of the material, sensory and social worlds we inhabit and what the implication is for ethnographic practice’. The above can be said to be underpinned by innovation in technology that has given rise to social media. Digital ethnographic research has led to debates on the core issues of ethnography in digital pointing out the impacts of the environment, methods, and methodologies that are shaping the practice of ethnography.

Ethnographic researchers are known for close engagement with their respondents which at times allows them to immerse themselves in the communities in which they are studying to enhance their in-depth understanding of the context and the people and foster asking of ‘standard survey-like questions’ for the study. Digital ethnographic researchers are more concerned about listening to their respondents for a better understanding of their experience and to ask more probing questions. The digital ethnographic researcher’s role is a huge methodological consideration in digital research. The digital ethnographic researcher should be able to understand their roles in the knowledge production which is not merely eliminating bias which arguably is not completely possible rather playing proper roles in constructing the knowledge from the digital ethnographic research data. This is crucial because digital ethnographic researchers are expected to be able to understand and interpret the information obtained from the respondents. By so doing, the digital ethnographic researchers are expected to be able to understand the process of collecting credible data, conducting data analysis and able to ascertain and control their influences in the research. Hence ethnographic researchers should integrate reflexivity measures while conducting the study. On that premise, Pink et al. (2016) proposed key principles crucial in digital ethnographic research, which are reflexivity, openness, multiplicity, unorthodoxy, and non-digital-centric-ness. Data could be generated

through telephone interviews, individual interviews, focused group discussions, or qualitative content analysis (Snelson, 2016).

Qualitative experimental design

Experimental design can be conducted in social media research method. Qualitative experimental design allows for assigning participants randomly to a control group and treatment group. The control group is the group of participants that do not receive any treatment or intervention while the treatment group is the group of participants that receives a certain type of treatment. Thus, the research intends to understand the casual inference between the groups. Because participants are randomly assigned to each group, it is imperative that the groups virtually possess pre-treatment characteristics on the same average (Singh et al., 2020). Possession of the same average pre-treatment characteristics by the two groups of participants results in confidence that any differences in average outcome between the groups are as a result of the administered treatment rather than the environment or the features of the participants. In social media research, the experimental design could be used in three different ways which are; participant recruitment, means of applying treatment, and avenues for measuring the outcome of interest.

In participant recruitment, social media space has resulted in a huge level of success including in research adopting experimental design. The recruitment of participants through adopting an experimental design could be recruiting from Twitter ads, online message boards, or Facebook. Experimental design can allow researchers in applying treatment to participants. This implies that social media users can be used as assigned to a control or treatment group as an experimental subject. In measuring the outcome of interest, the experimental design could be used to measure the outcome of interest following the engagement in some research intervention. Munger (2016) posits that intervention could take place within a social media space.

Qualitative observational design

Qualitative observational design is known for its features for collecting unstructured data in various formats. The characteristics of the qualitative observational design are consistent with the social media research area in the aspect of its descriptive data on how an individual is interacting with those around them in an uncontrolled context (social media space) in the absence of intervention measures initiated by a researcher (Singh, Bode, Davis-Kean et al., 2020). Social media space enables for collection of text bulk data, videos, or pictures, and adoption of various forms of content analysis to evaluate construct and themes. It is imperative to understand that social media data are complex on human behaviour and most times reflect the opinion and beliefs of individuals while coming in a huge volume different from the traditional pattern of qualitative observation design.

In social media research, qualitative observation design, researchers should delve into data that could be used to answer various questions of interest, ascertain the strength and limitations of utilizing these data, and then generate theory-driven hypotheses. To understand

the large quantity of qualitative data describing human behaviour in qualitative observational design in social media research, it is imperative to appropriately classify primary text and conduct data analysis to derive meaning from the different representations of text (Singh et al., 2020).

Qualitative Survey design

Survey design follows a systematic method of gathering data from a given sample to generate a quantitative description of distinct features of the larger population. Among the characteristics of the survey design, is the ability to construct valid measures and represent the target population. In survey design, researchers can sample participants through probability sampling and non-probability sampling. The adoption of probability sampling in survey design allows the involvement of every element in the chances of being selected for the study. While non-probability sampling does not give every element the chance of being selected in the study. Understanding these sampling methods is essential in applying the proper method of estimating sampling variance and in generalization of the study population (Singh et al., 2020). Researchers using survey design in their social media research should focus on construct measurements through carefully drafting survey questions to reflect the construct of interest. Most times, pre-tests are measured and then validated to ascertain if they are reliable and exactly measure what they are expected to measure. The structuring of the question is also carefully put into consideration to reduce acquiescence biases, social desirability and to ensure that the research participants do not answer the research question in a particular way.

The survey design question for social media research is structured in such a way that it will enable gathering data related to participants' attitudes, behaviours, and characteristics. The questions could be open-ended or open-ended. The participants participating in social media research using a survey design could be required to be treated as the unit of analysis. The researcher meanwhile, must obtain consent from the participants. With the obtained consent from the participants, the researcher can access and use their social media data. Data are collected through the linking of survey questions with the account of the social media user.

Quantitative social media method

The quantitative research method follows a traditional method in its inquiry which is a controlled and systematic process of generating numerical data for analysis. Quantitative research might start with a theory, conceptual model, or framework to ascertain how or why things vary and understand the link between a change in a variable and if it affects another variable (Polit & Beck, 2017). The quantitative research method collects primarily quantitative data known as numerical data for analysis. For instance, a researcher might intend to ask social media users about the impacts of online bully their willingness to accept a new friend request on a social media platform. Research might present a survey of 0 to 10 with related concepts and expect the participants to 'agree' 'disagree' 'strongly agree'. The provided data will enable the researcher to quantify the participant's response to answering the research questions. Quantitative research can be adopted in social media research in the

form of a quantitative social media research method through systematic and controlled processes to generate numerical data for analysis.

The choice of research method is mostly defined by the researcher's experience or worldview. For instance, an individual who is competent or trained in technical, and familiar with quantitative journals, statistics, computer statistical programs, and scientific writing could decide to adopt a quantitative research method (Creswell, 2014). This also implies to quantitative social media research method. Social media provides researchers with a huge quantity and rich data regarding the daily life experience, views, beliefs, and opinions of users (Singh et al., 2020). Thus, the effect of leveraging on this vast quantity of data could improve the ability of people in understanding economic, psychological, political, and sociological behaviours. The following research designs can be adopted in quantitative social media research method; experimental quantitative research design, quasi-experimental quantitative research design, correlational quantitative research design and descriptive quantitative research design. The quantitative social media research method enables researchers in drawing samples from a large pull of research participants, specify studied variables, and generate numbers and statistics for analysis. For instance, Daowd, Kamal, Eldabi, Hasan, Missi and Dey (2020) investigated the impacts of social media on the performance of microfinance institutions in developing countries using a quantitative method. They collected data from microfinance institutions using web-based questionnaires. Data can be collected through the use of web-based questionnaires or surveys while analyzed using SPSS. The generated data are based on precise measurement using structured and validated instruments of data collection. The quantitative social media method enables researchers to be critical in their thinking and able to generalize their findings to other populations.

Mixed method social media method

Mixed method research can address research topics that cannot be addressed by other methodologies (Molina-Azorin, 2012). Mixed method research allows researchers to collect both qualitative (open-ended) and quantitative (closed-ended) data in a single study, analyze the collected data, interpret the findings and draw the conclusion depending on the strength of the various data for an in-depth understanding of a research problem (Creswell, 2014). Mixed method research can be used in social media research. The following research design can be adopted in mixed method social media research; exploratory sequential mixed method research design, explanatory sequential mixed method research design, convergent mixed method research design, embedded mixed method research design and multiphase mixed method research design. An example of such research work is the study conducted on social media websites by Morgan, Snelson, and Elison-Bowers (2010), using a qualitative analysis of social media contents together with a survey to investigate the behavioural pattern and attitudes of adolescents regarding depictions of alcohol and marijuana use. Furthermore, Vyas, Landry, Schnider, Rojas and Wood (2012) conducted another study combining a survey and a follow-up interview to investigate short message service and social media usage among young adults of Latin and the possible roles of these services as a public health program communication methods. The above examples demonstrate the strength of

qualitative and mixed method research in solving social media research-related problems. Thus, the mixed method social media research method enables researchers to combine qualitative and quantitative social media research methods in a single study for an in-depth understanding of a study. For instance; Shifman (2012) conducted social media research by adopting qualitative and quantitative mixed method research methods. The adopted research method enabled the researcher in uncovering the attributes common to “memetic videos”.

The mixed method social media method draws its strength from the combination of qualitative and quantitative methods in a single study for the generation of broader data to best answer research questions or actualizes research objectives. Casselman and Heinrich (2011) investigated the novel use patterns of *Salvia divinorum*: unobtrusive observation using YouTube through adopting a mixed method research method. The study's adoption of a mixed method research method for social media research enabled the researchers in collecting data through ethnographic observation and further user-generated content crawlers. The mixed method social media research method enabled the researcher in integrating the strengths of the two research methods and they complemented each other to foster the understanding of the study. Smith, Smith and Knighton (2018) analyzed social media dialogue in a crisis using a mixed method research method. A mixed method research method enabled them in collecting data using NodeXL to generate quantitative and qualitative data for a detailed result for the study. This method can as well provide researchers with benefits such as the ability to investigate the network of greater scope, reduced informant bias, increased capability for longitudinal design, and broader access to diverse social actors (Williams & Shepherd, 2017).

Data in mixed method social media can be collected through written social media diary, using NodeXL or job posting website. For instance, Alfaro, Bhattacharyya and Watson-Manheim (2013) conducted a social media mixed method research collecting data from Indded.com, which is a job-posting website that aggregates job announcements from different sources. The researchers used an automated process to collect all the advertised jobs in a format HTML daily. Mixed method social media data can be collected and analyzed in a parallel fashion or converged during data interpretation. Data could be analyzed through a technique such as content analysis or semantic network analysis.

CONCLUSION

The handbook gave an expository overview of social media research as an evolving research area with vast scholarly opportunities. The overview of the study was underpinned by properly conceptualized ideas backed with literature to foster the understanding of social media as a crucial background to understanding social media research methods. The handbook demonstrated different social media research methods crucial for researchers undertaking social media research.

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