

UNDERSTANDING THE  
INFORMATIONAL AND NORMATIVE  
INFLUENCES OF RUMOUR DIFFUSION  
VIA SOCIAL MEDIA ON CONFLICTS  
ESCALATION

By

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FIRST DRAFT



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## Abstract

*The paper discusses the role rumour plays in conflicts generation particularly how social media aids the diffusion of unsubstantiated information. Using the informational and normative influence of Deutsch and Gerrard's Dual Process Theory, the paper explored how received information based on the two constructs of the dual process theory, that is, informational and normative influences can be used to explain the persuasion factor that helps people initiate action, how proper understanding of the influences the diffusion, adoption and use of unsubstantiated information will help in the design and implementation of proper information systems that would help counter rumour and reduce the information gap which leads to uncertainty among the members of the society.*

FIRST DRAFT



## Introduction

Conflicts lead to loss of lives and property. Conflicts have occurred in Rwanda and Burundi (Diamond, 2005), in Liberia, Sierra Leone, Democratic Republic of Congo, Sudan (Blanchard, 2014; Ottaway and El-Sadany, 2012), Ivory Coast, Somalia and Nigeria (Alimba, 2014, 2004; Nwolise, 2003). Egypt, Tunisia, Bahrain, Libya, Syria, and Yemen (Aday, Farrell, Lynch, Sides, and Freelon, 2012; Dalacoura, 2012), are also reported cases of conflicts that have resulted in numerous deaths and property damage in Africa and some parts of the Middle East (; Tchombe, 2006; Osaghae and Robinson, 2005). Conflict could be seen as a violent expression of disagreements and frustration often arising from unmet needs and aspirations (Annan, 2014).

Many studies have explored conflicts with the aim of reducing the occurrences to the barest minimum (Sia, Tan and Wei, 2010; Yecho, 2006; Kimmel, 2004; Onwudiwe, 2004; Albert, 2001; Fine and Turner, 2001; Hembe, 2000; Lyam, 2000; Varvar, 2000). However, while these studies have helped to understand the causes of conflicts, they have not discussed the issue from an epistemological perspective. Epistemological approach provides alternative ways of understanding the complexity of conflict from the dynamics of how information is shared, understood, and used within cultural contexts and situations (Simpson and Freeman, 2004; Hoffman, 2003; Crossley, 2001; Labonte and Robertson, 1996;). Therefore, for conflicts to be reduced to the barest minimum there is the critical need to investigate how unsubstantiated information is diffused, adopted, and used. Specifically, there is the need to investigate the role of social media in diffusion of unsubstantiated information during electioneering periods in conflict prone societies such as Nigeria.

## **Social Epistemology**

Epistemology is the philosophy of knowledge or “the science of knowing” (Babbie, 2007). It is concerned with how people come to know what they claim to know about the social world or social reality (Trochim, 2000). The benefits of looking at conflicts from epistemological perspectives are numerous. An understanding of epistemology helps us to determine what our information structures, systems, services, policies, and institutions ought to be like, and what they ought to do, if the processes by which we interact with information are to result in the satisfaction of our “epistemic objectives”—e.g., the rapid, cheap, and easy acquisition of all and only those beliefs that are justified, true, and relevant (Fallis 2006). It is used in demonstrating how an understanding of the ways in which social groups (as well as individuals) acquire knowledge can be applied in the design of information services to those groups (Furner, 2004; Furner, 2002; Egan and Shera, 1952).

Social Epistemology is broadly construed as a study of the social dimensions of knowledge acquisition and information processing (Palermos and Pritchard, 2013; Goldman, 2010). Social epistemology is a branch of traditional epistemology that studies epistemic properties of individuals that arise from their relations to others, as well as epistemic properties of groups or social systems (Goldman, 2010).

## **Problem Statement**

Elections are important periods in countries practicing democracy (International Peace Institute, 2012). elections provide a legitimate and legal context in which citizens express their opinions and views, being a means towards democracy and democratic governance, a time for political decision making (IPI, 2012; Kuhne, 2010; Chauvet and Collier, 2008; Brown 2003, Fischer 2002, Reilly 2002, Reilly 2008).

Unfortunately, in beginning democracies especially in developing countries, electioneering periods are characterized by crisis, conflicts, and ethnic violence (). Many studies conducted have examined the causes of conflicts during electioneering periods in beginning democracies. For instance, tracing the roots of conflict in West Africa was revealed as much deeper and complex, and embedded in the interplay of historical factors, socio-economic crisis, legacies of authoritarianism and politics of exclusion, international forces, and local struggles (Obi 2012), litany of unfulfilled basic needs was identified as a cause of conflicts (Doucey, 2011), Rothbart and Cherubin (2009) pointed to the battle for superiority of ethnic affiliation as another major cause of conflicts, summarized as identity salience. However, while these studies have helped in understanding the causes of conflicts during electioneering periods in beginning democracies (Inokoba and Maliki, 2011; Sia, et al., 2010; Yecho, 2006; Onwudiwe, 2004; Albert, 2001; Fine and Turner, 2001; Hembe, 2000; Lyam, 2000; Varvar, 2000), they have not discussed the role of misinformation, and unsubstantiated information (rumour), (Lewandowsky et al., 2013; Pretorius and Barnard, 2004; Osaghae, 2004), in relation to conflicts in electioneering periods, specifically, how social media is used to diffuse unsubstantiated information (Rumour).

Exploring how social media is used in diffusing unsubstantiated information is important because, rumours generate conflicts which lead to loss of lives and property (Sia, et al., 2010). Conflicts which have their origins in rumour have been reported to have grave consequences (Bhavnani, Findley, and Kuklinski, 2009). For decades rumours has been major causes of conflicts, for instance: 34 lives were lost, 75 policemen injured and 1,800 people arrested in the 1943 Detroit riot; in Paris a rumour was circulated which resulted in conflict, causing the death of 2 Muslim youths, 126 injured with 2,888 arrested; in India, a rumour of the Sikhs celebrating the death of the Prime Minister Indira Ghandhi led to the death of 325 Sikhs and a further 2,733 in the course of three years; also, a rumour that the Tutsi had shot

down a plane carrying the Rwandan president who was Hutu led to the 1994 Rwandan genocide where an estimated 500,000 to 1 million Tutsi and moderate Hutu sympathizers Rwandans were slaughtered (Bhavnani, et al., 2009; Diamond 2004; Gourevitch 1998; ABC, 2005; Sia, Tan and Wei 2010). In addition to loss of lives that occurs during conflicts situations, riots, looting, property damages, and injuries have been reported (Bhavnani, et al., 2009; ABC, 2005; Diamond, 2004).

## **Rumour**

Rumour is defined as “unverified and instrumentally relevant information statements in circulation that arise in contexts of ambiguity, danger, or potential threat and that function to help people make sense and manage risk” (DiFonzo and Bordia, 2007; Kimmel, 2004; Fine and Ellis, 2010). Essentially, rumours reflect people’s assumptions or suspicions about how the world works, that is, how they make sense of happenings, and events around them. Rumours can vary according to whether they emanate from an event, a detail, or a fantasy (Kapferer, 1990 In: Kimmel, 2004). Several classification schemes have been offered to identify the various types of rumors, reflecting differences in message content, etiology, and underlying motive or purpose (Kimmel, 2004). Rumour has been categorized into Pipe Dream, Bogie, Wedge Drivers, Homestretcher, Spontaneous, Premeditated, Self-Fulfilling, Conspiracy, Contamination, Urban Legends, Internal and External (Kimmel, 2004; Difonzo and Bordia, 1998; Kamins, et al., 1997; Victor, 1993; Kapferer, 1990; Fine, 1980; Rosnow and Kimmel, 1979; Knapp, 1944. In Kimmel, 2004).

Rumours can be diffused astoundingly fast through social networks. Traditionally this happens by word of mouth, but with the emergence of the Internet and its possibilities new ways of rumor propagation are available (Kostka, Oswald, Wattenhofer, 2008). In the past, rumour was passed inter-subjectively using word of mouth, but in the 21<sup>st</sup> century, the diffusion

of rumour has become exponentially increased via the use of social media (Kwon, Cha, Jung, Chen, and Wang, 2013; Tanaka, Sakamoto, and Matsuka, 2012; Kim and Bock, 2011; Ratkiewicz, Conover, Meiss, Goncalves, Flammini, and Menezes, 2011).

## **Social Media**

Social media has been defined as a group of Internet-based applications that build on the ideological and technological foundations of web 2.0 and allows the creation and exchange of user-generated content (Jussila et al., 2014; Liu, Austin, and Jin (2011); Kaplan and Haenlein, 2010; Boyd and Ellison, 2008; Sweetser and Lariscy, 2008). They facilitate interaction among members by providing a dynamic platform that enables content sharing, discussions, and organization of activities and events (Cachia, Compano, and Da Costa, 2007). Social media is classified into six different categories: Collaborative projects (Wikis, bookmarking applications); Blogs; Content communities (Youtube, Flickr, Digg); Social networking sites (LinkedIn, Facebook, Twitter); Virtual Game, and Virtual Social Worlds (Second-life) Kaplan and Haenlein (2010).

With the rise of social media (e.g. Facebook, Twitter, and YouTube), news/information travels faster than ever. Social media can expedite information flows and expand and distort the boundaries of traditional human relations (Zhao et al. 2012). The social media has made it easier for content that is designed to fit the users and their preferences, resulting in the users becoming more able to freely contribute and edit the content holding sites. The concept is referred to as “user generated content” (UGC). UGC refers to material and information given on websites, blogs, etc., that has been produced by the users (Kaplan & Haenlein, 2010). With the presence of the myriad of services made available by the social media, social media services are rapidly changing the way we create, distribute, and share information especially during social crises (Palen et al., 2010, 2009; Shklovski et al., 2010, 2008; Starbird and Palen, 2010).

## **Dual Process Theory**

Dual process theory is a psychological theory that posits two distinct categories or types of influences on the persuasiveness of received messages: informational influence and normative influence (Deutsch and Gerrard 1955). Morton Deutsch and Harold B. Gerrard conducted experimental studies which were developed in a way to prove that social influences have an impact on an individual's psychological processes. Social influences can affect an individual's decision making and judgement, individuals are said to rely on the judgements and perceptions of other individuals as a trustworthy source of correct evidence in regards of reality.

Deutsch and Gerrard were intrigued by the Asch (1953) situation: a situation in which a naïve subject makes judgements about which of three lines is most similar in length to a standard line after being exposed to false, but unanimous, judgements by three accomplices of the experimenter. At the time, it was a very popular paradigm for doing research on the effects of social influence upon individual judgement prior to their study. This theory focuses on a communication influence model based on both the receiver's self-judgment of the information and the normative power of other audiences. It is useful in explaining communication effectiveness when group opinions/discussions are present (Briggs et al. 2002; Sia et al. 2002).

### **Normative Influence:**

Normative influence is defined as “influence to conform to the positive expectations of another” (and often “or to avoid sanctions from another”). Positive expectations according to Deutsch and Gerrard refer to those expectations whose fulfillment by another leads to or reinforces positive rather than negative feelings and whose non-fulfillment leads to the opposite, to alienation rather than solidarity. Normative influence refers to the influence on the individual arising from the norms/expectations of others that are implicit or explicit in the choice preference of the group or community (Price, Nir, and Cappella, 2006). It refers to the

influence on the individual arising from the norms/expectations of others that are implicit or explicit in the choice preference of the group or community. In normative influence, one's communication evaluation is based not so much on the received information as on the opinions of other audiences.

### **Informative Influence:**

Informational Influence is defined as “influence to accept information obtained from another as evidence about reality”. It is often that influence that derives from the power of an individual or group to present their perspective on a subject as more authoritative and erudite than the opinion of the majority (Kaplan and Miller, 1987). Informational influence arises from information obtained as evidence about reality. It is based on the receiver's self-judgment of the received information, and hence the relevant components of the information, such as the content, source, and receiver, are important sources of influence (Cheung, et al. 2009). For instance, informational influence may be derived from the power of the presenter if he/she is considered to be more authoritative and erudite about the topic been presented.

### **Previous Studies of Theory of Dual Process Theory (DPT)**

Studies have been conducted using the Deutsch and Gerrard's (1955) Dual Process Theory (DPT). Kim and Bock (2011) using the two factors/influences of DPT studied the factors that affect the behaviour of spreading online rumours focusing on the emotion of the recipient. Kim and Bock hinged their study on trying to understand the characteristics of online rumours that facilitate the behaviour of rumour spreading. The study raised one research question “What kinds of factors affect the behaviour of spreading rumours online”? The study applied the cognitive emotion theory and dual process theory of information processing to examine how online users express their emotions of online rumours. They found out that

informationally based determinants significantly influenced positive emotion. They also found out that there were significant differences between positive and negative emotion, noting that consensus played an important part in forming their positive emotion.

In another study by Bartie, Avineri, and Chatterjee (2013) titled “online information-sharing: a qualitative analysis of community, trust and social influence amongst commuter cyclists in the UK”. The research took into consideration the use and behavioural effects of travel as experienced shared through word-of-mouth in everyday travel behaviour. It discussed social interactions about travel with informational influence where beliefs are based on the experiences of other individuals. It explored using qualitative approach the social processes which occurred when a group of 23 commuter cyclists interacted with one another through a specially designed, map-based website over a period of six weeks. Methods used were observations of website interactions, participant questionnaires and semi-structured interviews. The study found out that processes of group identification and trust were found to be associated with strong positive attitudes towards cycling relating to the fact that information sharing was performing a social role alongside its more obvious function of diffusing practice travel information.

In a study by Sia, Tan, and Wei (2002), group polarization and computer mediated communication: effects of communication cues, social presence, and anonymity. They explained what group polarization was and the tendency for people to become more extreme in their thinking following group discussion. The study examined how computer-mediated communication may be associated with group polarization. Two experiments were carried out, at the end of which insights into the processes that trigger group polarization. The results highlighted the potential for critical organizational decisions to become prone to group polarization. The study uncovers two settings in which group polarization tends to be high,

they highlighted the benefits of these settings which they noted encourages innovation and entrepreneurship because the settings may cause people to generate a greater number of novel arguments.

In another study, Yang, Chiu, and Chen (2011) in their study titled “examining the social influence on college students for playing online games: gender differences and implications”. They tried examine the social influence that online gaming had on college students with particular reference to the role that gender plays with its attendant implications, their argument which is premised on the increasing popularity of online games. The study used the informational influence, normative influence and attitude to test their hypotheses. They employed a mixed method of qualitative and quantitative, questionnaires and focus group interview was used to generate the data for the research. A result which showed that more males engaged in online gaming as against the lower number of their female counterparts. Also it revealed significant effect of social influence on each group’s attitude with the males been more obvious.

Mendes-Filho and Tan (2009) in their study “User-generated content and consumer empowerment in the travel industry: a uses and gratification and dual-process conceptualization”. They examined the user behaviour on the web, in terms of the time spent on the web and what they shared while on the web. The purpose of the study they claimed was to theoretically propose a set of factors that integrate user generated content (UGC) adoption with consumer empowerment variables to enhance our understanding of how UGC empowers online consumer in the travel industry. The study came up with three contributions; proposing a new construct of consumer empowerment, conceptualizing the UGC using theories, and providing a framework for the design, implementation and managing of websites.

Cheung, Luo, Sia, and Chen (2009) from their study “Credibility of Electronic Word-of-Mouth: Informational and Normative Determinants of On-line Consumer Recommendations”. They explored how rumour was transmitted historically via Word-of-mouth (WOM) and extending the study to the on-line context (eWOM) by examining the informational and normative determinants of the perceived credibility of on-line consumer recommendations. A survey of users of an on-line consumer discussion forum in China substantiated the effects of the determinants, although post-hoc analyses revealed that prior knowledge and involvement level moderate some of them. Implications for research and practice are discussed. The study explores how informational and normative determinants influence the perceived credibility of on-line consumer recommendations. In addition, for nomological completeness, the relationship between information credibility and readers’ eventual adoption of electronic word-of-mouth (eWOM) recommendations is also examined and discussed. The research questions are:

How would informational and normative determinants affect a user’s credibility evaluation of on-line consumer recommendations?

How would an information reader’s motivation and ability level influence the relationship between the informational and normative determinants and the reader’s perceived information credibility?

How will this perceived credibility of eWOM influence its adoption?

## **Application of Deutsch and Gerrard's Dual Process Theory in exploring rumour diffusion during electioneering periods**

The dual process theory is a theory used in the study of persuasion. People act on rumour because they are persuaded enough and convinced, coupled with the state of mind at the time of receipt that the information received could be true. People tend not to act or rather discard information which they can easily judge to be false but on the contrary, where they cannot ascertain truth and are convinced enough, they tend to act.

The two constructs (influences) of DPT and how each is applied to information behaviours of how people who receive rumour information is discussed:

### **Informational Influence**

Informational influence occurs when facts, evidence, or other forms of information pertinent to the decision are discussed by group members and cause them to reevaluate their positions (Kaplan and Miller, 1987). When people accept the words, opinions, and deeds of others as valid evidence about reality.

Probable Questions:

1. How do you judge credibility of information you receive?
2. When you receive unsubstantiated information, what comes to your mind?
3. What spurs you to forward such information and to whom do you send the message first and why the person?

## **Normative Influence**

Motivations for meeting normative expectations lie in the various rewards that might accrue (self-esteem or feelings of social approval) or possible negative sanctions that might result from deviant behaviour (alienation, excommunication, or social isolation).

Questions:

1. What factors do you consider before forwarding a received message?

## **Conclusion**

The paper discussed the role rumour plays in conflicts generation particularly the role of social media in the diffusion of unsubstantiated information. Using a theoretical perspective, it has explored how received information based on the two constructs of the dual process theory, that is, informational and normative influences can be used to explain the persuasion factor that helps people initiate action. Proper understanding of the roles these influences play in the diffusion, adoption and use of unsubstantiated information will help in the design and implementation of proper information systems that would help counter rumour and reduce the information gap which leads to uncertainty among the members of the society.

## References

- Alimba, N. Chinyere (2014). Probing the Dynamic of Communal Conflict in Northern Nigeria. *African Research Review: An International Multidisciplinary Journal*, Ethiopia Vol. 8 (1), Serial No. 32, January: 177-204 ISSN 1994-9057. DOI: <http://dx.doi.org/10.4314/afrev.v8i1.13>
- Allern, S. and Pollack, E. (2012). *Scandalous: the mediated construction of political scandals in four Nordic countries*. Göteborg: Nordicom.
- Annan, N. (2014). Violent Conflicts and Civil Strife in West Africa: Causes, Challenges and Prospects. *Stability: International Journal of Security & Development*, 3(1): 3, pp. 1-16, DOI: <http://dx.doi.org/10.5334/sta.da>
- Berger, J. (2011). Arousal increases social transmission of information. *Psychological Science* 22, 7, 891-893.
- Blanchard, L. P. (2014). *The Crisis in South Sudan*. Congressional Research Service, 1-21.
- Bordia, P., and DiFonzo, N. (2004). Problem solving in social interactions on the Internet: Rumor as social cognition. *Social Psychology Quarterly*, 67, 1, 33-49.
- Boyd, d. and Ellison, N. (2008). Social network sites: Definition, history, and scholarship. *Journal of Computer-Mediated Communication*, 13, 210-230.
- Bryson, J. M. (2004). "What to do when stakeholders matter: Stakeholder identification analysis techniques", *Public Management Review*, Vol. 6, No. 1, pp. 21-53
- Budak, C., Agrawal, D., and El Abbadi, A. (2011). Limiting the spread of misinformation in social networks. In *Proc. Of WWW, ACM*, 665-674.
- Burns, A. C. and Bush, R. F. (2003). *Marketing Research: Online Research Applications*, 4th edition, Publisher: Prentice Hall
- Cachia, R., Compano, R., and Da Costa, O. (2007). Grasping the potential of online social networks for foresight. *Technological Forecasting and Social Change*, 74, 1179-1203.
- Castillo, C., Mendoza, M., and Poblete, B. (2011). Information credibility on twitter. *WWW, ACM*, 675-684.
- Cheng, Z., Caverlee, J., and Lee, K. You are where you tweet: A content-based approach to geo-locating twitter users. *Proc. of Conference on Information and Knowledge Management, CIKM 2010*, 759-768. ACM.
- Chierichetti, F., Lattanzi, S., and Panconesi, A. (2009). Rumor spreading in social networks. In *36th Intl. Colloquium on Automata, Languages and Programming (ICALP)*, pp. 375–386. Springer.
- Christ, P. (2007). "Internet technologies and trends transforming public relations", *Journal of Website Promotion*, Vol. 1, No. 4, pp. 3-14.
- Coombs, W. T. (2007). *Ongoing crisis communication: Planning, managing, and responding* 2nd ed. Los Angeles: Sage.

- Coombs, W. T. (2009). Conceptualizing crisis communication. In R. L. Heath, and H. D. O'Hair (Eds.), *Handbook of crisis and risk communication* pp. 100–119, New York: Routledge.
- Coombs, W. T. (2012). *Ongoing Crisis Communication: planning, managing, and responding*, 3rd edition, SAGE Publications, Inc.
- Coombs, W.T. (2011). *Ongoing Crisis Communication: Planning, Managing and Responding*, 3rd ed., Sage, Thousand Oaks, CA.
- Coombs, W.T. and Holladay, S.J. (2014). “How publics react to crisis communication efforts: Comparing crisis response reactions across sub-arenas”, *Journal of Communication Management*, Vol. 18, No. 1, pp. 40-57.
- Daniel Chirot, (2008). *Traditional Methods of Avoiding Genocidal Slaughter*, Online Encyclopedia of Mass Violence, [online], published on 30 March 2008, accessed 8 February 2015, URL: <http://www.massviolence.org/Traditional-Methods-of-Avoiding-Genocidal-Slaughter>, ISSN 1961-9898
- DiFonzo, N, and Bordia, P. (2007). *Rumor psychology: Social and organizational approaches*. American Psychology Association.
- Dix, S. (2012). “Introduction to the special issue on social media and mobile marketing”, *Journal of Research in Interactive Marketing*, Vol. 6 No. 3.
- Doucey, M. (2011). UNDERSTANDING THE ROOT CAUSES OF CONFLICTS: Why it matters for International Crisis Management. *International Affairs Review*, 20 (2) 1-12.
- Elmi, A. A., and Barise, A. (2006). The Somali Conflict: Root causes, obstacles, and peace building strategies. *African Security Review*, 32-54.
- Fallis, D. (2006). Social epistemology and information science. *Ann. Rev. Info. Sci. Tech.*, 40: 475–519. doi: 10.1002/aris.1440400119.
- Gantz, W., and Trenholm, S. Why people pass on news: Motivations for diffusion. *Journalism and Mass Communication Quarterly* 56, 2 (1979), 365-370.
- Gergen, K., Gergen, M. and Barrett, F. (2004), “Dialogue: life and death of the organization”, in Grant, D., Hardy, C., Osrick, C. and Putnam, L.L. (Eds), *The Sage Handbook of Organizational Discourse*, Sage Publications, London.
- Goldman, A. (2010). ‘Why Social Epistemology Is Real Epistemology’, *Social Epistemology*, (eds.) A. Haddock, A. Millar and D. H. Pritchard, 1-28, Oxford: Oxford University Press.
- González-Herrero, A. and Smith, S. (2008), “Crisis communications management on the web: how internet-based technologies are changing the way public relations professionals handle business crises”, *Journal of Contingencies and Crisis Management*, Vol. 16, No. 3, pp. 143-153.
- González-Herrero, A. and Smith, S. (2010). “Crisis communications management 2.0: organizational principles to manage crisis in an online world”, *Organization Development Journal*, Vol. 28, No. 1, pp. 97-105.

- Harvard Business School (2010), *The New Conversation: Taking Social Media From Talk to Action*, Harvard Business Review Report, Harvard Business Publishing, Boston, MA, available at: [www.sas.com/resources/whitepaper/wp\\_23348.pdf](http://www.sas.com/resources/whitepaper/wp_23348.pdf). (Accessed 2014-04-07)
- Hill, K. (2012). Hurricane Sandy, @ComfortablySmug, and the Flood of Social Media Misinformation. *Forbes.com*. (October 30,). Available at: <http://www.forbes.com/sites/kashmirhill/2012/10/30/hurricane-sandy-andthe-flood-of-social-media-misinformation/>
- Hiltz, S. R., Kushma, J., and Plotnick, L. (2014). Use of social media by US public sector emergency managers: Barriers and wish lists. *Proc. of ISCRAM*.
- Hughes, A. L., and Palen, L. (2012). The evolving role of the public information officer: An examination of social media in emergency management. *J. of Homeland Security and Emergency Management* 9, 1, 1-20.
- IPI (International Peace Institute) (2012). Preventing Conflicts in Africa: Early Warning and Response. In: Roundtable discussion on 'Preventing Conflicts in Africa: The Role of Early Warning and Response Systems on 27 April 2012. New York: IPI.
- Jin, Y., Fisher Liu, B. and Austin, L.L. (2014). "Examining the Role of Social Media in Effective Crisis Management: The Effects of Crisis Origin, Information Form, and Source on Publics' Crisis Responses", *Communication Research*, Vol. 4, No. 1, pp. 74-94.
- Jones, B., Temperley, J. and Lima, A. (2009), "Corporate reputation in the era of Web 2.0: the case of Primark", *Journal of Marketing Management*, Vol. 25, No. 9/10, pp. 927-939.
- Jussila, J., Kärkkäinen, H., and Aramo-Immonen, H. (2014). "Social media utilization in business-to-business relationships of technology industry firms", *Computers in Human Behavior*, Vol. 30, pp. 606-613
- Kaplan, A.M. and Haenlein, M. 2010. "Users of the world, unite! The challenges and opportunities of Social Media", *Business Horizons*, Vol. 53, No. 1, pp. 59-68.
- Kietzmann, J.H., Silvestre, B.S., McCarthy, I.P. and Leyland F.P. (2012). "Unpacking the social media phenomenon: towards a research agenda", *Journal of Public Affairs*, Vol. 12, No. 2, pp. 109-119.
- Kwon, S., Cha, M., Jung, K., Chen, W., and Wang, Y. (2013). Prominent Features of Rumor Propagation in Online Social Media. In *IEEE 13th International Conference on Data Mining, ICDM*, 1103-1108.
- Laroche, M., Habibi, M. R., and Richard, M. O. (2013). "To be or not to be in social media: How brand loyalty is affected by social media?", *International Journal of Information Management*, Vol. 33, No. 1, pp. 76-82.
- Leberecht, T. (2010). Twitter Grows Up in Aftermath of Haiti Earthquake, *CNET News*, (January 19) <http://www.cnet.com/news/twitter-grows-up-in-aftermath-of-haiti-earthquake/>

- Leonard, H. B., Cole, C. M., Howitt, A. M., and Heymann, P. B. (2014). Why was Boston strong? Lessons from the Boston Marathon Bombing. Program on Crisis Leadership and Program in Criminal Justice Policy and Management, Harvard Kennedy School, April 3.
- Madrigal, A. (2013). #BostonBombing: The Anatomy of a Misinformation Disaster. The Atlantic (April 19) <http://www.theatlantic.com/technology/archive/2013/04/-bostonbombing-the-anatomy-of-a-misinformation-disaster/275155/>
- Madrigal, A. (2013). Hey Reddit, Enough Boston Bombing Vigilantism. The Atlantic. (April 17, 2013).
- Mendoza, M., Poblete, B., and Castillo, C. (2010). Twitter under crisis: can we trust what we RT?. Proc. of 1st Workshop on Social Media Analytics, ACM, 71-79.
- Montalvo, R.E. (2011), "Social Media Management", International Journal of Management and Information Systems, Vol. 15, No. 3, pp. 91-96.
- DiFonzo, N., and Bordia, P. (2007). Rumor psychology: Social and organizational approaches. American Psychological Association, 2007.
- Nahon, K., Hemsley, J., Mason, R. M., Walker, S., and Eckert, J. (2013). Information flows in events of political unrest. Proc. of iConference 2013, 480-485.
- Neuman, L. (2003), Social research methods, Pearson Education Inc, USA
- Oh, O., Agrawal, M., and Rao, H. (2013). Community Intelligence and Social Media Services: A Rumor Theoretic Analysis of Tweets During Social Crises. MIS Quarterly, 37, 2 (2013), 407-426.
- Palen, L., Anderson, K.M, Mark, G, Martin, J, Sicker, D, Palmer, M., and Grunwald, D. A. (2010). Vision for Technology-Mediated Support for Public Participation and Assistance in Mass Emergencies and Disasters, in Proc. of ACM-BCS Visions of Computer Science, 1-12.
- Palermos, O. and Pritchard, D. (2013). "Extended Knowledge and Social Epistemology." Social Epistemology Review and Reply Collective 2 (8): 105-120.
- Pang, A., Hassan, N. B. B. A and Chong, A. C. Y. (2014). "Negotiating crisis in the social media environment: Evolution of crises online, gaining credibility offline", Corporate Communications: An International Journal, Vol. 19, No. 1, pp.96 – 118.
- Price, V., Nir, L., and Cappella, J. N. (2006). Normative and Informational Influences in Online Political Discussions. Communication Theory, 16 (1), 47-74. <http://dx.doi.org/10.1111/j.1468-2885.2006.00005.x>
- Qazvinian, V., Rosengren, E., Radev, D. R., and Mei, Q. (2011). Rumor has it: Identifying misinformation in microblogs. In Proc. of the Conference on Empirical Methods in Natural Language Processing, 1589-1599.
- Ratkiewicz, J., Conover, M., Meiss, M., Goncalves, B., Flammini, A. and Menczer, F. (2011). "Detecting and Tracking Political Abuse in Social Media," in ICSWM: 5th International AAAI Conference on Weblogs and Social Media.

- Romenti, S., Murtarelli, G. and Valentini, C. (2014). "Organizations' conversations in social media: applying dialogue strategies in times of crises", *Corporate Communications: An International Journal*, Vol. 19, No. 1, pp. 10-33.
- Kwon, S., Cha, M., Jung, K., Chen, W., and Wang, Y. (2013). "Prominent features of rumor propagation in online social media," in *Proceedings of International Conference on Data Mining*, pp. 1103–1108.
- Obi, C. (2012). *Conflict and peace in West Africa*. Uppsala, Sweden: The Nordic Africa Institute. Available at <http://www.nai.uu.se/publications/news/archives/051obi>.
- Ottaway, M., and El-Sadany, M. (2012). *Sudan: From Conflict to Conflict*. Washington: Carnegie Endowment for International Peace.
- Schultz, D. E., and Peltier, J. J. (2013), "Social media's slippery slope: challenges, opportunities and future research directions", *Journal of Research in Interactive Marketing*, Vol. 1, No. 2, pp. 86-99.
- Shibutani, T. (1966). *Improvvised news: A sociological study of rumor*. Ardent Media.
- Siah, J., Bansal, M. and Pang, A. (2010), "New media: a new medium in escalating crises?", *Corporate Communications: An International Journal*, Vol. 15, No. 2, pp. 143-155.
- Spiro, E. S., Fitzhugh, S., Sutton, J., Pierski, N., Greczek, M., and Butts, C. T. (2012). Rumoring during extreme events: A case study of Deepwater Horizon 2010. *Proc. of ACM Web Science Conference 2012*, ACM, 275-283
- Starbird, K. and Palen, L. (2012). How will the Revolution be Retweeted? Information Propagation in the 2011 Egyptian Uprising. In *Proc. of CSCW*, 6-17.
- Starbird, K., Maddock, J., Orand, M., Achterman, P., and Mason, R.M. (2014). Rumors, False Flags, and Digital Vigilantes: Misinformation on Twitter after the 2013 Boston Marathon Bombing. *iConference*, 654-662.
- Stephens, K. K., Malone, P. C. and Bailey, C. M. (2005). "Communicating with stakeholders during a crisis: evaluating message strategies", *Journal of Business Communication*, Vol. 42 No. 4, pp. 390-419.
- Sun, S., Liu, H., He, J., and Du, X. (2013). "Detecting event rumors on sina weibo automatically," in *Web Technologies and Applications*. Springer, pp. 120–131.
- Takahashi, T. and Igata, N. (2012). "Rumor detection on twitter," in *Soft Computing and Intelligent Systems (SCIS) and 13th International Symposium on Advanced Intelligent Systems (ISIS)*, 2012 Joint 6th International Conference on. IEEE, pp. 452–457.
- Thomas, J. B., Peters, C. O., Howell, E. G. and Robbins, K. (2012). "Social Media and Negative Word of Mouth: Strategies for Handling Unexpected Comments" *Atlantic Marketing Journal*: Vol. 1, No. 2, Article 7.

Vecchio, P., Laubacher, R., Ndou, V. and Passiante, G. (2011). “Managing Corporate Reputation in the Blogosphere: The Case of Dell Computer”, *Corporate Reputation Review*, Vol. 14, No. 2, pp. 133-144.

Vuori, M. (2012). “Exploring uses of social media in a global corporation”, *Journal of Systems and Information Technology*, Vol. 14, No. 2, pp. 155-170.

Weiner, B. (1986). *An Attributional Theory of Motivation and Emotion*, Springer Verlag, New York.

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