

CELEB VS. NON-CELEB INDUCED CRISIS: PUBLICS' EMOTIONAL VALENCE ON SOCIAL MEDIA

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ABSTRACT

The present research studies the two disparate kinds of crisis facing modern organizations— Crisis involving Celebrities vs. Crisis involving non-Celebrities on social media sites. While each episode of crisis has the potential to damage the reputation of any organization, certain crisis types could have higher severity. In such scenarios, the organization needs to be better prepared to address its stakeholders. In this background, the present study attempts to approach the issue of celebrity and non-celebrity induced crises. Using the sentiment analysis tools, the present work highlights the stark difference between the spread of negative sentiments in these two cases. The study reports that celebrity-induced crisis could spread on social media within hours of the occurrence of the episode and could cause severe reputation damage to the organization. Based on the findings of the present study, it is recommended that organization should dedicate resources to finding real time sentiment for the brand/company The present work also makes recommendations for practitioners to differently approach these two types of crises.

Keywords: Crisis Communication, Sentiment Analysis, Celeb Induced-Crisis, Emotional Valence, Social Media.

INTRODUCTION

Struck by a crisis, an organization could lose both its tangible and intangible assets. The aftermath of such losses could be short-lived or may sustain for long, causing a huge amount of damage to the organization's reputation, operations, or revenues. Since the number of crisis events has increased enormously over the years owing to the interconnectedness of more than two billion people on social media platforms, organizations should care to learn the finer nuances associated with various types of crises. Many organizations have made sincere efforts toward developing crisis management plans and dedicated resources for crisis handling. HR professionals across the globe are working to build an organization's crisis knowledge base and training teams to think critically during crises. During training sessions, employees share how well they handled a crisis or what they could have done differently. The issue of crisis types and the impact thereof is also an area where the knowledge base needs to be updated regularly. In this study, we have therefore investigated the difference in the impact of two types of crisis sources: celebrity induced crisis vs. non-celebrity induced crisis.

Celebrity vs. Non-celebrity Crisis

Several studies done in the past suggest that crises involving celebrities can have a more significant impact on a company's reputation than those involving non-celebrities. Here are a few studies and articles that support this claim:

A study published in the International Journal of Business and Social Science found that celebrity scandals have a more significant negative impact on a company's reputation than non-celebrity scandals. The study analyzed the effects of four celebrity scandals and four

non-celebrity scandals and found that the celebrity scandals had a more significant negative impact on the companies involved (Kim & Ko, 2012).

Another study published in the *Journal of Business Research* found that companies are more likely to experience a decline in sales and reputation following a celebrity scandal than a non-celebrity scandal. The study analyzed the effects of 32 celebrity scandals and 31 non-celebrity scandals and found that the celebrity scandals had a more significant negative impact on the companies involved (Koernig, et al. 2014).

In an article published in *Forbes*, crisis management expert Davia Temin notes that crises involving celebrities can be more challenging to manage than those involving non-celebrities. Temin argues that celebrities have a more significant impact on a company's reputation because they are seen as role models and influencers by the public (Temin, 2018).

In a case study published in the *Journal of Business and Management*, researchers analyzed the impact of Tiger Woods' infidelity scandal on his sponsors. The study found that the scandal had a significant negative impact on the reputation of Woods' sponsors, and some companies saw a decline in sales and stock prices (Barlow & Sharp, 2012).

Overall, these studies and articles suggest that crises involving celebrities can have a more significant negative impact on a company's reputation and bottom line than those involving non-celebrities. This is likely due to the high visibility and influence of celebrities in the public eye. Traditionally, famous persons from the field of entertainment and sports are considered celebrities, but the new media channels have enabled many others from different walks of life also to become popular on the Internet. Being followed by a large number of fans on social media sites, these celebrities appear high on the social media timelines of a huge number of users online. Celebrities on social media develop a strong bond with their fans and they receive intimate personal messages and are revered by their followers. Keeping this in mind, we hypothesized that celebrity-involving crises will affect the image of a company far more than those involving non-celebrity. When celebrities tweet/post their messages on their social media handles, the reach of their messages is far more than that of common people. On the other hand, the limited reach of non-celebrities might slow down the spread of the crisis and may limit its impact. In this background, the present work hypothesized that celebrity-induced crisis spread faster than non-celebrity induced ones. It's also hypothesized that celebrity-induced crisis may also cause deeper negative sentiments against the organization compared to the one cause by non-celebrities.

Impact of Celebrities on Social Media

The most obvious factor that drives the dynamics during a crisis is speed. Real-time messages in social media create a constant flow of communication in which the next piece of information displaces the former one. In the case of highly attractive information, many people can be reached within a short period of time. This can result in a temporal dominance of a single topic that, consequently, leads to a large volume of communication. Speed and volume are the primary factors relevant for opinion spreading in social media. Recent studies show that the half-life of Twitter memes and hashtags, the time after which 50% of the overall traffic is reached (Burton and Kebler 1960), is just on the order of hours or even minutes (Fang and Huberman 2007). In terms of social media platforms, all social media networks have a high turnover of information, but Twitter stands out: it ranks as the 'fastest' social media platform. The short message length of microblogging obliges communication to be short and quick. Because of this, Twitter seems to play a critical role in the propagation of online firestorms. In Twitter, the limit is 140 characters, but messages on other social media platforms also tend to be short. Schelling (1973) described such decision-making processes as binary choices. Decisions on whether to pass information on (e.g., by retweeting), or to sign a

petition against something, are binary because they are ‘either-or situations’. The absence of discursive interactions is a second very important factor for online firestorms.

The network clusters are another factor of online networks. Interpersonal communication networks (Pfeffer and Carley 2011) have significant local clustering. In network analysis, the term clustering is used to refer to transitive link creations (Heider 1946); that is, if user a is connected to user b and user b is connected to user c, then the chance is high that user a is also connected to user c (see Groeger and Buttle, this issue). Due to the high number of connected neighbors and local clustering (Watts and Strogatz 1998), the information echoes to a user from different directions of his or her social network – creating the impression of everybody talking about the same topics or having the same opinion (Sunstein 2001). There is also empirical evidence that locally connected clusters are very important for the start of epidemic spreading in social media (Lotan, 2012). These so-called echo chambers were introduced half a century ago to describe the amplifying effects of opinion forming between politics, media, and the populace (Key 1966). Nowadays, the same concept serves as a metaphor for the effect created by a user posting information in social media, and his or her connected neighbors posting a message on the same topic. The important difference is that in social media, every connection gets the same amount of attention, whereas in offline networks, the number of people interacting on a regular basis is more limited. Granovetter (1973, 1361) described the strength of a tie as a ‘combination of the amount of time, the emotional intensity, the intimacy (mutual confiding), and the reciprocal service’. Granovetter distinguished between strong and weak ties, and subsequent studies show that the core discussion networks of a person consist of two to three people on average (Marsden 1987). Including also people with whom a person shares activities (school, work, and leisure) results in an average network size of 12–20 people. These individuals are called sympathy groups by Zhou et al. (2005). In contrast, in social media, one can be a friend or follower of hundreds or even thousands of people. This large number of network neighbors creates a vast amount of communication and of transitive connections that echo and amplify information and opinions. This unrestrained information flow is also a factor of negative social media dynamics. Lack of diversity represents additional factor. The filter bubble (Pariser 2011) is a concept, which refers to overemphasizing the importance of single topics or opinions. The filter bubble works in two ways. On the one hand, social connections act as a filter since connections tend to be based on homophily (McPherson, Smith-Lovin, and Cook 2001). People tend to connect with other people who are similar from the perspective of age, gender, and socioeconomic status, resulting in similar interests, topics, and opinions. On the other hand, social media communication is also subject to technology; a message is rated as being more interesting for you if your friends also seem to be interested in the information, or if you were interested in a similar message in the past. Both concepts – echo chamber and filter bubble – are interpretations of decision-making within a regime of bounded rationality (Simon 1972). In the case of ‘limited information gathering’, no optimal solution is possible, and people look for satisfying decisions. In the context of social media, the information available to a single user is not only limited but also heavily biased. The presence of echo chambers on social media (Key 1966) also causes firestorms. Social media are increasingly becoming an important information source for traditional media (Diakopoulos, De Choudhury, and Naaman 2012). Twitter, for example, is frequently used as a kind of ‘radar’ by classic media, such as news publishers or television stations to pick up stories (often from eyewitnesses) at a very early stage. In the context of online firestorms and other social media activities, the following procedure can be observed. Social media users create a story. This story is broadcast by some traditional media with reference to an online phenomenon which results in much larger online activity – largely triggered by the social media hooks connected to the media story (for instance, buttons saying ‘Tweet this story’). Greater online activity

triggers additional media coverage and the result is an echo chamber between social media and traditional media. Recently, Myers, Zhu, and Leskovec (2012, 33) analyzed this interplay of social media internal dynamics and external effects (traditional media) in the context of information diffusion. They state that about one-third of the information volume on social media is triggered by 'external events and factors outside the network'. Another important factor that we have observed and categorized is a combination of previous factors; nevertheless, it is worthwhile discussing network-triggered decision processes as a separate aspect. Rogers (1995) described the process of adopting an innovation. Pfeffer and Carley (forthcoming) adapted this process to the way in which opinions and beliefs are adopted. Knowledge describes the moment when a person receives their first information about an opinion. During the persuasion step, people take up a positive or negative stance on an opinion. Having made a positive or negative decision about accepting or declining an opinion, people talk about that decision and therefore influence other people in their decision-making process (propagation). Meeting other people with the same opinion stabilizes a person in his opinion (affirmation), whereas negative feedback destabilizes. In the context of social media, we see a different process of opinion adoption resulting from the aspects described earlier. The filter bubble dominates the knowledge step by limiting information that reaches a user, whereas the echo chamber guarantees efficient persuasion and affirmation. Social media dynamics as well as technological artifacts all create the impression that the vast majority of other people already have the same opinion. The implications for the opinion adoption process are dramatic: cognitive processes can be replaced by network effects in social media opinion spreading.

Case 1: Crisis involving Celebrity (CIC)

Indian shuttler P.V. Sindhu took to social media site Twitter at midnight, November 3, 2017 to allege that one of Indigo airlines' ground staff misbehaved with her. PV Sindhu, Indian badminton queen, slammed airline company IndiGo for having "a very bad experience" while taking her flight from Hyderabad to Mumbai on Saturday. Sindhu took to twitter to explain that a ground staffer misbehaved with her during the journey. The celebrity had 2.42 million followers at the time of the crisis. Following this tweet, negative messages against Indigo surfaced on the social media and soon a firestorm broke out in this space. The airlines responded to the tweet of the celebrity within a few hours of her posting the message on Twitter. The airlines refuted the sportsperson's claims. Several Indian newspapers reported this episode on November 4 and 5, 2017. Several of them also published the report of Indigo refuting the claims and expressing regret over the episode.

Case 2: Crisis Involving Non-celebrity (CIN-C)

A controversy surfaced at Delhi airport on, with a video emerging that showed Indigo staff misbehaving with a passenger named Rajeev Katyal. He said, "I was standing under the shade of the aeroplane waiting for the bus when a person from the ground staff yelled at me and asked me to move away." Katyal registered his disappointment saying, "Instead of yelling, why can't you arrange the bus for us." To this, the Indigo staff person rudely replied saying, "Don't teach us our job." Katyal narrated the unfortunate incident to Times Now, and Indian English News Channel. Meanwhile, the bus, for which Katyal was waiting for, came to the runway. When Katyal tried to board the bus, the Indigo staff pushed him back and stopped him from entering the bus. When Katyal protested, he was dragged and manhandled due to which he fell to the ground. He revealed that one person from the Indigo staff said to the other, "Isko rok yahan par, isko yahin sikhaate hai (Stop this man here, let us teach him a lesson)." No security personnel intervened in the matter.

After flight No. 6E487 landed in Delhi on October 15, a passenger called Rajeev Katiyal was restrained, throttled, blocked and thudding down to the ground by the staff. However, the episode came to light only when the Indian electronic and print media published the story on November 7, 2019. A day later, the company president shared his apology in the media. He also informed that media he had already apologised to the passenger on phone when he learnt about this episode.

Method

There are different types of sentiment analysis techniques, such as feature-based sentiment analysis and document-based sentiment analysis (Eslami and Ghasemaghaei, 2018; Liu, 2010). In this study, as we were interested in the evaluation of tweets posted on the Twitter Page of Indigo airlines, we used feature-based analysis to understand emotions expressed on Twitter page of the company from the day of the reporting of service lapses on part of the airlines. To assess the impact of the two crises, tweets were pulled up for the period between November 4 and 7, 2017 and for the period of November 8 -11, 2019. The number of tweets on these days were 1728 (Nov 4), 791 (Nov 5), 453 (Nov 6) and 2946 (Nov 8), 2967 (Nov 9), 2302 (Nov 10), 1525 (Nov 11). The goal of Sentiment Analysis is to harness this data in order to obtain important information regarding public opinion, that would help make smarter business decisions, political campaigns and better product consumption. Sentiment Analysis focuses on identifying whether a given piece of text is subjective or objective and if it is subjective, then whether it is negative or positive. Therefore, we extracted different aspects such as adjectives, verbs and nouns and later these aspects were identified as positive or negative to detect the polarity of the whole sentence. To carry out sentiment analysis, the supervised machine learning techniques was used. First, the tweets were split into words and the stop words like I, you, they, is, am, are, etc. were removed. Adjectives and adverbs were tagged and then passed through a sentiment classifier and was classified as positive, negative and neutral by assigning it a score between -1.0 to 1.0.

Findings and Insights

The output contains a list of tweets in real time along with their sentiment score on the left-hand side. The day after the CIC, we notice the highest percentage of negative tweets and this percentage reduces gradually. By Day 3 and 4, the percentage of negative tweets is reduced from 52.5% to 30.8 percent. It gradually moves up as the CIN-C is reported by news channels and print media. The percentage of negative tweets gradually increase from 30.8% to 45.9 on the third day since the report was first published Figure 1.

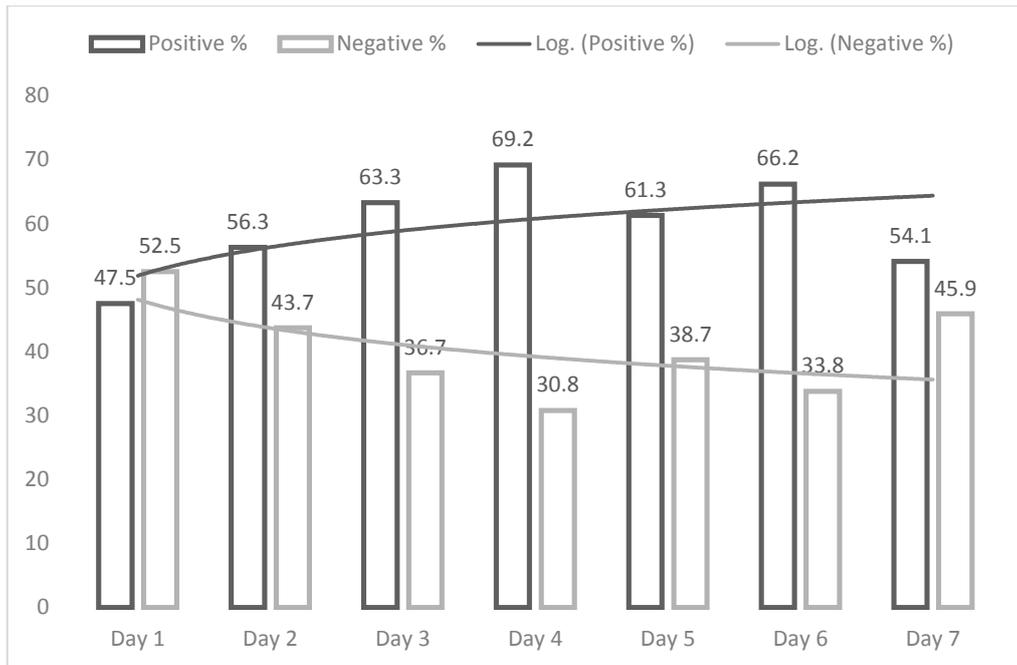


FIGURE 1
POSITIVE AND NEGATIVE SENTIMENT TRENDS OVER A WEEK

When we plotted the sentiments against the airline from the day of the outbreak of CIC, we notice strong negative sentiments against the company reflected by a cumulative score of -0.16 , because of the presence of negative keywords. However, the day after of the episode, we don't observe such negative sentiments in Figure 2. Later, however, positive sentiments dip and later enter the negative sentiment zone three days after the CIN-C episode. The negative cumulative score on Day 7 is reported to be 0.147 . It is to be noted that if a tweet has a score of 0, then it is ignored from final output. Neutral tweets were removed as they don't convey any sentiment towards the airline.

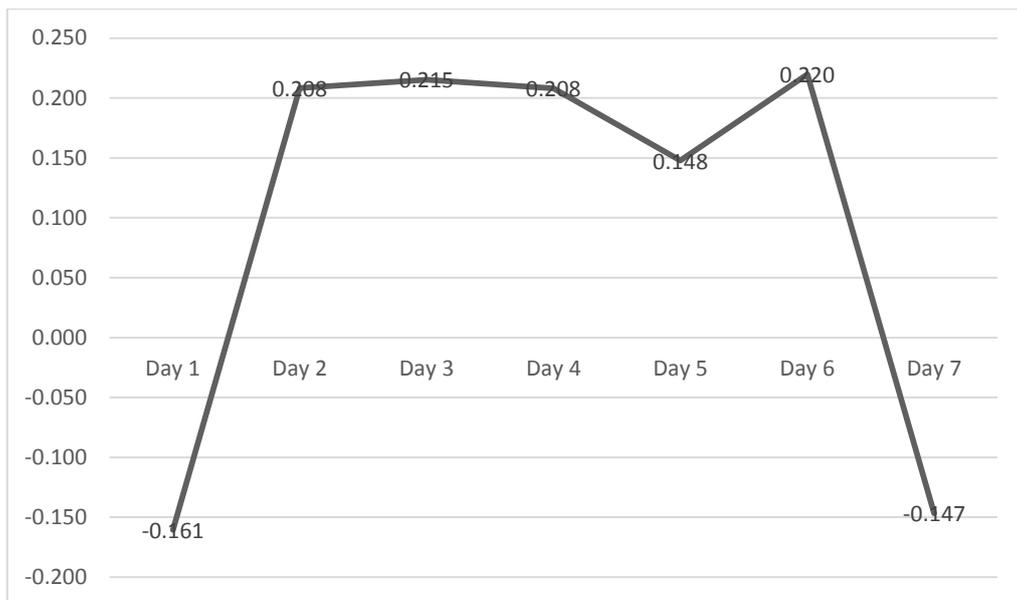


FIGURE 2
DAILY CUMULATIVE SENTIMENT PLOTTED OVER A PERIOD OF SEVEN DAYS DAILY AVERAGE

Discussion

As hypothesized, we found that the crisis involving CIC spread within a day and caused a strong negative sentiment against the airlines. While when the company faced another crisis within a few days of CIC, the effect of it wasn't immediate. The negative sentiments gradually engulfed the company, but provided it enough time to be prepared for handling this situation. A CIC could also cause stronger negative sentiments against the organization as seen in the present case. However, we couldn't find a stark difference between these two cases here. The results of the present study are not conclusive regarding the magnitude of negative sentiments. Since the second episode happened within three days of the CIC, the cumulative effect should have been higher, but was not so in this case. This hints at CIN-C having less negative impact than CIC.

CONCLUSION AND RECOMMENDATION

Based on this study, we have found distinctiveness in the way companies are affected in these two different scenarios: CIC vs CIN-C. We have found that CIC spreads much faster than CIN-C. Because of the large number of followers of celebrities on the social media, the crisis involving them may spread like a wildfire. As the followers of the celebrities re-tweet their posts, the negative effect of the crisis may be reinforced and may sustain for several days following the event. The presence of clustered networks on social media, every connection gets the same amount of attention, whereas in offline networks, the number of people interacting on a regular basis is more limited. Besides, episodes involving celebrities are covered by most media channels, and such news has greater reach than that involving non-celebrities. Coverage by news channels increases the reach of such news and spreads the online firestorm beyond the network of the celebrity. Another reason for fast spread of CIC lies in the fact that followers adore celebrities and may have a strong liking for them, too. As a result of this, the formation of echo chamber and bubble effect occurs on social media sites like Twitter. The recurrence of similar messages and coherence in the opinion of the followers of the celebrity may pose a serious threat to the brand reputation.

Therefore, the crisis handling teams in the organizations should act swiftly when a celebrity is involved in the crisis. In the present case, Indigo crisis managers showed the wisdom of responding at the earliest, within hours of reporting of the episode on social media. While the company initially ignored the episode involving CIN-C, but it responded later seeing the severity of reputation damage that the crisis could cause. Based on the findings of the present study, it is recommended that organization should dedicate resources to finding real time sentiment for the brand/company. They should also check the involvement of social media celebrities when crisis erupts. As they may have less time to plan their crisis response strategies, they must be ready for potential crisis scenarios. In addition, for unique situations, the organization must acknowledge the contributions of the celebrity involved in the crisis. Sentiment analysis tools may, therefore, be an effective tool for practitioners to gauge the effect of the crisis and also of the response sent from the company. Academic studies may continue to work on making sentiment analysis method more robust by reducing the number of false positives and negatives produced by current sentiment analysis tools.

Limitation of the Study

While Twitter has a reputation for being a good source of information for sentiment analysis, the present sentiment analysis tools may have the limitation of not capturing certain emotion types. However, as the present analysis tools are more effective at capturing negative sentiments rather than positive sentiments, we are assured of adequate identification of

negative sentiments in the present study. Nevertheless, there is no doubt that the accuracy of such tools may still be questionable. However, other research methods based on collection of response using Likert scales are also subject to similar criticism.

Appendix: Response of the Organization in the Wake of the Two Crises

Crisis 1: Response of Indigo Airlines in CIC

"Ms P V Sindhu boarded flight 6E608 Hyderabad - Mumbai last carrying oversized baggage which was not fitting into the overhead bin. Ms Sindhu was informed that it will be moved to cargo hold of the aircraft. This is the same policy we follow for all customers."

The airline added that oversized baggage inside the cabin inconveniences other customers and can also be a safety hazard if it can't be secured properly in the cabin.

"During the entire conversation, the member of the IndiGo ground operations remained calm. After several requests to her manager, they finally consented to the removal of the bag from the cabin. We then placed the over-sized baggage in the cargo hold and was handed over to Ms Sindhu on arrival."

"We are extremely proud of Ms Sindhu's sporting achievements and are grateful for the laurels she has won for our country. However, safety of our operations is paramount to IndiGo. We hope that Ms Sindhu will appreciate that our colleague was only carrying out his duty in the best interest of a safe and reliable operation,"

Crisis 2: Response of Indigo Airlines in CIN-C

Just wanted you to know the reality. I personally called and apologised to the customer three weeks ago. Not now. But on the very same night. Not once have we blamed the customer or justified the conduct of the employee. We immediately suspended them and terminated the errant employee.

The ex-employee who is claiming to the whistleblower is the one who was screaming at the customer and shouting Rok lay Rok lay I say preventing the customer from boarding the bus. He was four years senior to the other two employees. And instead of acting maturely, he is the one who instigated the incident. He is the one who prevented the customer from departing in the bus. You can hear his voice in the first parts of the video. He was a cargo employee. He had no business being there. And had no business shouting at the customer. Under the code of conduct violation, this incident was investigated by the designated committee and stern action was taken against the staff. He is the exact opposite of what IndiGo's customer service aims to be.

Treating our customers with respect is core to what we do. Every day we take tens of thousands of happy customers to where they need to get to. It is for this reason that customers choose IndiGo more number of times than any other airline in the country.

The incident that happened at Delhi airport is entirely the opposite of this and against what we stand for at IndiGo. The video of this incident came to our attention and we took action immediately. We did not wait for the video to be played out in the media.

Even while the investigation was going on we immediately suspended the involved employees.

I personally spoke to the customer and apologised to him the very same day. Whatever may have been the provocation, our staff were completely out of line and didn't follow laid down procedures.

We acknowledge the unpleasant experience our passenger went through while engaging with our staff. Once again, this does not reflect our culture and what we stand for.

At IndiGo, the dignity of our passengers and staff is of utmost importance. Any act that compromises the dignity of either is of a serious concern to us.

Once again our personal and sincere apologies to the affected passenger.

REFERENCES

- Barlow, J. B., & Sharp, J. (2012). A case study of the Tiger Woods scandal: An application of Benoit's image restoration theory. *Journal of Business and Management*, 18(1), 21-42.
- Burton, R. E., & Kebler, R. W. (1960). The "half-life" of some scientific and technical literatures. *American documentation*, 11(1), 18-22.
- Diakopoulos, N., De Choudhury, M., & Naaman, M. (2012). Finding and assessing social media information sources in the context of journalism. In *Proceedings of the SIGCHI conference on human factors in computing systems* (pp. 2451-2460).
- Eslami, S. P., & Ghasemaghaei, M. (2017). Identifying the Conditions under Which Online Reviews Translate into Product Sales: A Sentiment Analysis Approach. In *AMCIS*.
- Granovetter, M.S. (1973). "The Strength of Weak Ties." *American Journal of Sociology* 78(6): 1360–1680.
- Heider, F. (1946). "Attitudes and Cognitive Organizations." *Journal of Psychology* 21(1): 107–112.
- Key, V.O. (1966). *The Responsible Electorate*. Cambridge, MA: Harvard University Press.
- Kim, S. Y., & Ko, E. (2012). The impact of celebrity scandals on consumer attitudes: A comparison between celebrity and non-celebrity scandals. *International Journal of Business and Social Science*, 3(20), 98-105.
- Koernig, S. K., Brouthers, K. D., & Nakos, G. (2014). Scandals and firm reputation: A framework for future research. *Journal of Business Research*, 67(6), 1122-1131.
- Liu, B. (2010). Sentiment analysis and subjectivity. *Handbook of natural language processing*, 2(2010), 627-666.
- Lotan, G. (2012). KONY2012: See how invisible networks helped a campaign capture the world's attention. *Social flow*, 14.
- Marsden, P. V. (1987). Core discussion networks of Americans. *American sociological review*, 122-131.
- Myers, S. A., Zhu, C., & Leskovec, J. (2012). Information diffusion and external influence in networks. In *Proceedings of the 18th ACM SIGKDD international conference on Knowledge discovery and data mining* (pp. 33-41).
- Pariser, E. (2011). *The filter bubble: What the Internet is hiding from you*. Penguin UK.
- Pfeffer, J., & Carley, K.M. (2011). Modeling and calibrating real world interpersonal networks. In *2011 IEEE Network Science Workshop* (pp. 9-16). IEEE.
- Rogers, E. M. *Diffusion of innovations* (4thEd).
- Schelling, T.C. (1973). "Hockey Helmets, Concealed Weapons, and Daylight Saving: A Study of Binary Choices with Externalities." *Journal of Conflict Resolution* 17(3): 381–428.
- Simon, H. A. (1972). Theories of bounded rationality, in "Decision and Organization"(CB McGuire and R. Radner, Eds.).
- Sunstein, C.2001. "The Daily We." *Boston Review*, 26(3), 1-13.
- Temin, D. (2018). Why celebrity crises are different (and harder). *Forbes*.
- Watts, D.J., & Strogatz, S.H. (1998). Collective dynamics of 'small-world' networks. *Nature*, 393(6684), 440-442.
- Wu, F., & Huberman, B. A. (2007). Novelty and collective attention. *Proceedings of the National Academy of Sciences*, 104(45), 17599-17601.
- Zhou, W. X., Sornette, D., Hill, R. A., & Dunbar, R. I. (2005). Discrete hierarchical organization of social group sizes. *Proceedings of the Royal Society B: Biological Sciences*, 272(1561), 439-444.

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