

Impact of Fake News on Readers' Usage Behaviour for News Items on Facebook and Twitter



Charu Panwar, Anshu Arora

Abstract: Purpose: The goal of this study is to identify the major changes in the usage behaviour of social media users due to the presence of fake news and also to find the impact various behavioural changes of fake news on overall usage behaviour of social media. **Design/Methodology:** The present study is descriptive in nature. A well structured questionnaire was used for the collection of primary data. Five point Likert scale has been used in the questionnaire. A total number of 263 duly filled questionnaire were collected at the end of the field survey which were found fit for the study. Mean and multiple regression were used for data analysis. **Findings:** Fake news on social media significantly reduces the engagement rate of the social media users. There happens an increase in removal of friendship, unfollowing of the page / person. However the results differ as per the objectives of social media usage specially with respect to staying updated with the latest news. **Originality/ Value:** There is hardly any research in the Indian context that explains about the impact of fake news on various aspects of usage behaviour of social media users. The study has investigated the impact of various social media behaviour changes with respect to fake news with empirical evidences.

Index terms: Face book, Twitter, Fake News, Multiple Regression, Usage Behaviour

I. INTRODUCTION

Social media is one of the most important requirements of today's youth, not only youth but social media is now popular across all age groups. In India, housewives, old aged people etc. use social media for a good and productive time pass wherein they share jokes, videos and news items for entertainment, knowledge and a better connectivity with their friends and relatives. In many of the studies, the major objectives found for using social media were found as to stay sync with news and current events, to use spare time to find entertaining content and wide-ranging networking with people of same country or other country. Social media is considered as a good means of virtual friendship. There are 201 million The 23% of Facebook users are female in India. This platform is one of the very popular media in younger age groups of people and 90% of all Facebook users are of less than 45 years in India. Instagram is another medium which is popular and having 43 million users. (Nepoleoncat.com, 2017).

Revised Manuscript Received on 30 July 2019.

* Correspondence Author

Charu Panwar, PhD Research Scholar, Amity School of Communication, Amity University, Noida

Anshu Arora, Associate Professor, Amity School of Communication, Amity University, Noida India.

© The Authors. Published by Blue Eyes Intelligence Engineering and Sciences Publication (BEIESP). This is an [open access](https://creativecommons.org/licenses/by-nc-nd/4.0/) article under the CC-BY-NC-ND license <http://creativecommons.org/licenses/by-nc-nd/4.0/>

News on Social media

One of the most popular objectives of being on social media is to stay updated about the relevant and latest news items. Now days news not only update a person with the real time scenario of country, news sometimes entertain as well. People follow pages that post news about celebrities and influencers of social media, so that to find the entertaining stuff. The news items are amplified by sharing on social media. The social media engagement on news increases, when someone likes, comments or shares on the news. This amplification of social media serves two purposes - first more traffic on the webpage of particular news channel's / source of news, second the publicity of the objects of new spreads.

Fake news on Social Media

Fake news could be a variety of news media or info that consists of deliberate misinformation or hoaxes unfold via ancient print and broadcast print media or on-line social media (Tufekci, 2018 and David, 2017). The false info is then typically reverberated as information in social media, however often finds its thanks to the thought media in addition. The connection of pretend news has redoubled in post-truth politics. For media retailers, the flexibility to draw in viewers to their websites is important to get on-line advertising revenue. If commercial enterprise a story with false content attracts users, this advantages advertisers and improves ratings. quick access to on-line promotion revenue, redoubled political polarization, and therefore the quality of social media, primarily the Facebook News Feed, (Tufekci, 2018) have all been involved within the unfold of pretend news (Hunt, 2016), that competes with legitimate news stories. Hunt (2016) has also warned and advised to stop fake news. In his opinion we should share responsibly. Much of the fake news would possibly depress you to assume in such terms, your associate influencer among your own social network: place within the legwork on top of and solely post or share stories you recognize to be true, from sources you recognize to be accountable. It's the "take solely images, leave solely footprints" for the post-truth era. you'll be able to facilitate form the media you would like, too. Withhold "hate-clicking" on stories you recognize area unit designed to create you angry. get journalism you price. And if you've got connections on Facebook UN agency assume Onion stories area unit real, break it to them gently. Friends don't let friends share fake news.

II. LITERATURE REVIEW

Aymanns et al. (2017) found that exposing agents to the chance of fake news is an efficient thanks to curtail the unfold of fake news in social networks. Our results additionally highlight that data regarding the users' personal beliefs and their social network structure is very valuable to adversaries and may be protected. Moinuddin et al. (2017) explored that fake news development might influence investment and monetary risk-return of the social media users. Government ought to understand the monetary importance of advanced content governance practices to extend and capitalist interest in understanding however their media holdings square measure responding to fake news to step up. Shu et al (2017) opined that social media for news consumption may be an ambiguous brand. On the one hand, its low value, easy accessibility, and fast dissemination of data lead folks to hunt out and consume news from social media. On the opposite hand, it permits the wide unfold of "fake news", i.e., quality news with deliberately false data. The in depth unfold of fake news has the potential for terribly negative impacts on people and society. Therefore, fake news detection on social media has recently become the rising analysis that's attracting tremendous attention. fake news exposure on social media presents distinguishing features and encounters that create existing detection algorithms from ancient journalism inactive or not applicable. First, fake news is deliberately written to mislead readers to believe false data, that makes it tough and nontrivial to notice supported news content; thus, we want to incorporate auxiliary data, like user social engagements on social media, to assist create a determination. Second, exploiting this auxiliary data is difficult in and of itself as users' social engagements with fake news manufacture knowledge that's massive, incomplete, unstructured, and noisy. as a result of the problem of fake news discovery on social media is relevant it tends to conduct the survey to any facilitate analysis for the further research. during this survey, the study tends to additionally discuss connected analysis areas, open issues, and future analysis directions for fake news detection on social media. Hermida (2012) opined that we tend to square measure within the early stages of deciding the "us" in journalism. like the event of earlier media technologies like radio and TV, what we do, however we tend to be intimate. It has mentioned the print media uses of Twitter and Facebook, these social platforms might wither and get replaced with others or become a permanent fixture within the media constellation. Social media might need a rethink of the role of journalists because the ancient regulators and moderators of public discourse. As Deuze has discerned, "instead of getting some reasonably management over the flow of (meaningful, selected, fact-checked) data within the public sphere, journalists these days square measure some of the numerous voices publicly communication" (Deuze, 2008). Journalists face changes in work routines, in activity culture, in their relationship to the audience, even perhaps it suggests that to be a journalist these days. they're in operation during a digital and networked system wherever the standard distinction between the producer and shopper of media has been

scoured. For media professionals, "in a networked world, there not is that the 'journalist,' 'audience,' and 'source.' there's solely 'us'" (Singer, 2008).

III. OBJECTIVES

The present study has following two objectives:

- To find out the major changes in the usage pattern of social media users due to the presence of fake news
- To find the impact various behavioural changes of fake news on usage behaviour of social media

IV. METHODOLOGY

The present study is empirical in nature. The study has been conducted with the help of primary data. The data has been collected from respondents who use social media with the help of a pre-tested well-designed questionnaire. Questionnaire was well structured with general information questions and specific questions for the purpose of the study. Five point Likert scale has been used in the questionnaire. The sample size of the study was 350 however with a response rate of 75.14%, 263 duly filled questionnaire were found fit for the study. For the analysis of data statistical tools such as mean and regression have been applied.

V. DATA ANALYSIS AND RESULTS

Table. 1 Demographic Profile of the respondents

Demography	Categories	No. of Respondents	% age
Gender	Male	174	66.16
	Female	89	33.84
	Total	263	100.00
Age	Below 30	114	43.35
	30-40	86	32.70
	Above 40	63	23.95
	Total	263	100.00
Education	Graduate	85	32.32
	Post Graduate	109	41.44
	Professional	69	26.24
	Total	263	100.00
Using social media for	3 to 5 years	80	30.42
	5 to 10 years	126	47.91
	Above 10 years	57	21.67
	Total	263	100.00
Occupation	Salaried	122	46.39
	Business	86	32.70
	Others	55	20.91
	Total	263	100.00

Table 1 shows the demographic profile of the respondents, the table shows that 66.16% are males and rest 33.84% are females. 43.35 are below 30, whereas 32.70% are of the age of 30-40. Lastly, 23.95% are above the age of 40. With respect to the education of respondents it was found that 32.32% are graduates, 41.44 are post graduates and 26.24 are professionals. The demographic profile also

constraints about the usage experience of social media by the respondents. 30.42 have been using social media for 3 to 5 years. 47.91% have been using it for 3 to 5 years 21.67 have been using social media for 5 to 10 years regarding occupation; the responds are from the mixed categories. 46.39% are from salaried group and 32.7% are from business category and 20.91% have some other business.

Table. 2 Purpose of Using Social Media

SL. No.	Purpose of Using Social Media	Mean Value
1	Connectivity with friends	4.86
2	Knowing about latest News	3.71
3	Knowledge about the latest products	3.40
3	Following influential persons – celebrities, politicians etc.	3.17
4	Own personal branding	3.88
5	Promotion own products	2.59

As per the table 2 it may be observed that maximum people use social media for the purpose of connectivity with friends with the mean value of 4.86 followed by personal branding (mean value 3.88) and knowing about latest News (mean value 3.71). Knowledge about the latest products and

following influential persons – celebrities, politicians etc are the objectives that are moderately preferred by the social media users. Last preferred and least rated objective of social media is Promotion of own products.

Table. 3 Change in the Usage Behaviour due to fake news Items on Facebook and Twitter

SL. No.	Usage behaviour due to increasing fake news on Facebook and Twitter	Mean Value
1	I do not like the news item which seems to be fake	4.24
2	I do not share the news item which seems to be fake	4.43
3	I just ignore the news items which seems fake	4.10
3	I usually ignore <u>all the news</u> items on these platforms	3.49
4	I report the news items to Facebook/ Twitter that seems to be fake	2.07
5	I comment on the news items that are fake to make other aware about their falseness	1.75
6	I first convince myself about the authenticity of news before reading it on Facebook or Twitter	2.96
7	Presence of fake news on Facebook and Twitter makes me browse newspapers/ news channel's website to read news.	3.61
8	Being updated with the latest news is not my purpose of being on Facebook and Twitter	2.85
9	I unfriend/unfollow the friend who has a habit of sharing or posting the fake news	3.41
10	I unfollow the page that has shared/posted the fake news	3.16
11 DV	Due to the presence of Fake News on Social Media my usage behaviour for Facebook Twitter has changed	3.79

Table 3 shows the changes in the usage behaviour due to fake news items on Facebook and Twitter. The most important change observed in behavior is that, I do not share the news item which seems to be fake with highest mean value of 4.43, followed by I do not like the news item which seems to be fake (mean value 4.24), I just ignore the news items which seems fake (mean value 4.10). The above three are the most important behavioral changes due to fake news on social media. The other important usage behavior changes are I usually ignore items on these platforms and Presence of fake news on Facebook and Twitter makes me browse newspapers/

news channel's website to read news with the mean value of 3.61 and 3.49. However, the overall impact viz. Due to the presence of Fake News on Social Media my usage behavior for Facebook Twitter has changed has a promising mean value i.e. 3.79. To check the impact of various changes in the usage behavior on overall change in usage behavior, multiple regression analysis has been applied. The results have been shown from table 4 to 6.

Impact of Fake News on Readers' Usage Behaviour for News Items on Facebook and Twitter

Table. 4 Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.817 ^a	.668	.659	.46446

Table 4 shows the model summary of the multiple regression. As per the table the adjusted R square value is .659 which means the independent variables explains around 66% of the dependent variable which is quite satisfactory and robust.

Table. 5 ANOVA

ANOVA						
Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	168.782	10	16.878	78.240	.000
	Residual	83.916	389	.216		
	Total	252.697	399			

Table 5 ANOVA table show the results of variations. The significance value is .000, which is less than .05; hence the variation among the different independent variables is significant.

Table. 6 Coefficients

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.729	.255		2.862	.004
	I do not like the news item which seems to be fake	.033	.020	.050	1.653	.099
	I just ignore the news items which seems fake	.458	.043	.467	10.724	.000
	I usually ignore <u>all the news</u> items on these platforms	.263	.045	.285	5.818	.000
	I report the news items to Face book/ Twitter that seems to be fake	.242	.031	.256	7.800	.000
	I comment on the news items that are fake to make other aware about their falseness	.165	.039	.152	4.191	.000
	I first convince myself about the authenticity of news before reading it on Facebook or Twitter	.394	.030	.425	13.240	.000
	Presence of fake news on Facebook and Twitter makes me browse newspapers/ news channel's website to read news.	.206	.040	.201	5.145	.000
	Being updated with the latest news is not my purpose of being on Facebook and Twitter	-.145	.039	-.154	-3.748	.000
	I unfriend/unfollow the friend who has a habit of sharing or posting the fake news	.050	.033	.045	1.514	.131
	I unfollow the page that has shared/posted the fake news	.055	.025	.065	2.179	.030

Dependent variables: Presence of Fake News on Social Media my usage pattern for Facebook/ Twitter has changed Interpretation of Table 6: The 't-value' and the significance value are the two most important columns of this table. A positive t-value shows that the independent variable (given on the left side in the first column) have positive impact with the dependent variable (see footnote of table 6 for dependent variable) and negative value of 't' shows vice-versa. Any significance value below .05 shows that the

impact is significant and any significance value above .05 shows the impact is not significant. Table 6 shows the impact of various usage behaviour changes on the overall usage behaviour change for social media usage as an effect of the fake news.

There are in total 10 affects in the above table that shows the change in behaviour due to fake news. All the changes in the usage behaviour correlate with each other except two viz. *I unfriend/unfollow the friend who has a habit of sharing or posting the fake news* and *I do not like the news item which seems to be fake*. For rest all the statements the relationship of the statements has been found correlated with the dependent variables.

In Brief the results show that unfollowing someone or removing from the friend list does not have impact on overall change in usage behavior of social media by fake news. However, fake news can make someone unfollow a 'page' on Face book or Twitter. Ignoring news items, ignoring fake news items, browsing newspapers, convincing with authenticity are the independent variables that have a positive impact on the overall usage behaviour.

However, at the same time 'Being updated with the latest news is not my purpose of being on Face book and Twitter' has a negative impact. It is obvious that someone who is not interested in the news items, his behavior will also not change with the fake news.

VI. FINDINGS AND CONCLUSION

The present paper empirically investigates the spectrum of fake news on social media and its impact on Facebook and Twitter. Reading latest news is one of the most important purposes for someone for being on social media platforms. However, there were few whose purpose for being on social media platforms was not reading news. Overall, it has been found from the study that the behavior of social media users changes to a large extent because of the presence of fake news. They do not like the posts, they do not comment and share on the post if they are not convinced with the authenticity of the same or it seems to be fake. Hence the engagement on fake news is low than a news which seems to be authentic. On the other hand, people unfollow or unfriend their friends who have a habit of posting the fake news, but this behaviour is not as strong as the behaviour against engagement with the post. The output of regression shows that people whose purpose of being on social media is not reading news, their behaviour is not much affected by the fake news. Unfollowing the pages spreading fake news has also become the popular behaviour of respondents using social media. This study successfully contributes to the existing body of knowledge by investigating some of the robust aspects of fake news and its impact of Face book and Twitter users. The study has significant inputs of the marketers who advertise on Face book and Twitter as they must be careful while designing their advertisements. There promotional material specially advertisements or blog posts should not look like a news items which is too much exaggerated. In a nutshell the study recommends that the social media platforms must keep a watch on rising number of fake news items on their platforms otherwise slowly and steadily the users will start avoiding these platforms and the same shall be a critical situation for them.

REFERENCES

1. Deuze, M., 2008, Understanding journalism as newswork: How it changes, and how it remains the same, Westminster Papers in Communication and Culture, 5 (2): 4 – 23.
2. Hermida (2012), "Social Journalism: Exploring How Social Media is Shaping Journalism, The Handbook of Global Online Journalism, First Edition. Edited by Eugenia Siapera and Andreas Veglis. John Wiley & Sons, Inc.
3. Tufekci, Zeynep (January 16, 2018). "It's the (Democracy-Poisoning) Golden Age of Free Speech", The Wire. Retrieved from <https://www.wired.com/story/freespeechissuetechturmoilnewcensorship/?CNDID=50121752> on 12/12/2018.
4. Leonhardt, David; Thompson, Stuart A. (June 23, 2017). "Trump's Lies". New York Times. Retrieved on 12/12/2018 from <https://www.nytimes.com/interactive/2017/06/23/opinion/trumps-lies.html>
5. Mihailidis, Paul; Viotty, Samantha (2017). "Spreadable Spectacle in Digital Culture: Civic Expression, Fake News, and the Role of Media Literacies in "Post-Fact" Society". American Behavioral Scientist. 61 (4): 441–454.
6. Habgood-Coote, Joshua (2018). "Stop talking about fake news!". Inquiry: 1–33.
7. Himma-Kadakas, Marju (2017). "Alternative facts and fake news entering journalistic content production cycle". Cosmopolitan Civil Societies: An Interdisciplinary Journal. 9 (2): 25–41.
8. Hunt, Elle (December 17, 2016). "What is fake news? How to spot it and what you can do to stop it" retrieved from <https://www.theguardian.com/media/2016/dec/18/what-is-fake-news-pizzagate> on 12/12/2018.
9. Moinuddin et al. (2017), "ESG Spotlight Fake news, social media and the value of credible content", Sustainalytics Spotlight Report
10. Aymanns, C., Foerster, J. and Georg, C. (2017). Fake News in Social Networks. SSRN Electronic Journal.
11. Shu, K., Sliva, A., Wang, S., Tang, J., & Liu, H. (2017). Fake News Detection on Social Media. ACM SIGKDD Explorations Newsletter, 19(1), 22-36.
12. Singer, J.B., 2008, The journalist in the network. A shifting rationale for the gatekeeping role and the objectivity norm, Tripodos 23, available at: <http://www.tripodos.com/pdf/Singer.pdf>31. pdf (last accessed December 16, 2010).
13. Deuze, M., 2008, Understanding journalism as newswork: How it changes, and how it remains the same, Westminster Papers in Communication and Culture, 5 (2): 4 – 23.