

Effects of Social Media Fake News on Educated Females of Hazara University

Dr. Majid ul Ghafar, Dr. Shujaat Ali Khan, and Dr. Muhammad Imran

Abstract

Social media and its applications are the most popular tools for information around the globe. Most people especially the female youth get information about different issues, incidents or events through social media, as it has replaced the traditional media. Social media refers to online platforms and websites that facilitate the creation, sharing, and exchange of information and ideas in virtual communities. However, there is no tool available to check whether the information is correct or false. Most of the females are exposed to fake news. Present study is based on survey technique to investigate and explore the effects of social media fake news on educated females of Hazara. Uses and Gratification theory is media effect theory which is very much relevant with this research. The data was collected through closed ended questionnaire from 200 female students of the Hazara University who use social media for information and education purpose. The collected data was analyzed by using SPSS statistical software. The empirical analysis of the data reveals that overall majority of the female respondents of Hazara University frequently use social media for information purpose. The exclusive analysis of the data also reveals that overall majority of the female use Facebook social media applications for information purpose. The empirical findings also reveal that overall majority of the female students have the opinion that Twitter spread more fake news as compared to any other social media application.

Keywords: Social Media, Fake News, Misinformation, Disinformation, Youth

Introduction

Social media provides unlimited access to a variety of information, so that people can exchange different beliefs and values (George et al., 2018; Kim et al., 2019). Social media offers a space where individuals can connect with others who share similar or different interests, whether personal, group, or popular. For instance, people of a similar age often find common interests due to growing up in the same era, fostering the building of relationships based on shared beliefs and values. (Gomez-Miranda et al., 2015; Lyon & Montgomery, 2015; Miller & Tucker, 2013; Nerur et al., 2008) it allows users to create profiles, share text, photos, videos and other multimedia content and interact with others through the comments, likes, share, and private messages. Users gratify their need for information and entertainment by consuming content shared by others. Joining groups or following pages related to specific interests allow users to connect with like-minded individuals. Apart from sharing information, social media serves a primary role in facilitating social interaction, communication, and entertainment among people (Hwang et al., 2011; Kuem et al., 2017).

The researchers are beginning to acknowledge, in literature awareness is growing, suggesting that fake news might extend beyond politics into the corporate realm. If this unfolds, fake news could saturate various areas, intensifying the prevalence of a post-factual society (Adriani, 2019). Social media fake news refers to false or misleading information deliberately spread through social media platforms. This misinformation can take various forms, including misleading headlines, fabricated stories, or manipulated images and videos. The effects of social media fake news on young females can be significant. It can influence their perceptions, attitudes, and behaviors. Here are some potential impacts. Exposure to fake news can shape young females' beliefs and opinions, leading to the acceptance of false information as facts. False or sensationalized stories can evoke strong emotions. Young females may experience anxiety, fear, or stress due to misinformation, affecting their emotional well-being (Kuem et al., 2017).

Statement of purpose

Frequent exposure to fake news on social media platforms can shape beliefs, impact emotions, and result in social and academic consequences. As social media keeps upgrading, it's important to know and encounter fake news before sharing it. This research looks closely at a big issue – how fake news on social media affects female students at Hazara University. Therefore, problem statement of this research study directed towards the female student community at Hazara University.

Significance of the study

People use social media as a rich resource to seek information, entertainment, or education. However, the widespread of fake news, particularly those targeting females on social media platforms, exerts great influence on individuals' thoughts and perspectives. Much researches have been done on social media fake news at different levels but no such study has been conducted concerning fake news effects on female students at Hazara University. Therefore, this research addresses the significance of understanding how fake news uniquely impacts the experiences and perspectives of female students of Hazara university. The exploration of these effects contributes valuable insights to both academic discourse and practical strategies for fostering a more informed and resilient online community.

Objectives of the Study

- To document frequency of using social media by female students
- To investigate which social media application female students use for news updates
- To explore which social media application youth consider spread more fake news
- To investigate what type of techniques students, use for counter check news and source
- To documents opinion of the female students about fake news effects

Research Questions

- RQ1.** Which social media application female students use for news updates?
RQ2. Which social media application spread more fake news
RQ3. How and what technique female students use when they receive fake news

Hypothesis of the Study

H: It is more likely higher exposure to social media higher the risk of exposure to fake news

Literature Review

In the beginning of the Internet era, there was a belief that it would make information more transparent, ultimately improving the quality of personal selection. People thought that having information from different news sources on the Internet would let them discover news from unconventional outlets. People around the world are consuming more media, spending an average of over 10 hours each day engaged in various forms of media (Nielsen, 2016). During the crisis, there was a global increase in social media usage,

ranging from 20% to 87%. In Italy, specifically in March 2020, 46,000 Twitter posts average per day were found to be inaccurate, contributing to misinformation about the crisis. Studies revealed that, on social media, lots of false news is being shared. When people investigate fake news, they sometimes have trouble distinguishing it apart from real news. But interestingly, their ability to recognize propaganda or advertising tends to be somewhat better in comparison of recognizing fake news (Nielsen & Graves, 2017).

A study at the State University of New York in Oneonta during the 2017-2018 academic year looked at how post-millennials use and view news on social media. The findings showed that over half of these students check social media multiple times a day. They get news from online newspapers and magazines, with three-fifths using social media for news too. Surprisingly, 90% of students mentioned they've come across news on social media that later turned out to be fake (Ahmad et al., 2020).

The idea that “false information online can actually influence how people behave” became widely known after the 2018 Cambridge Analytica scandal. In this incident, data from 87 million Facebook users was taken without their knowledge and used for political ads during the Brexit referendum and the 2016 US presidential election (Isaak & Hanna, 2018).

Information on social media is presented in ‘thin slices’ (Allcott & Gentzkow, 2017) means social media, information comes in small bits, making it tricky for readers to tell if it's real. That's why attention-grabbing headlines are made – the more people engage with a post (like, comment, or share), higher the chances are to show up in the news feed.

Research indicates that humans play a role in spreading fake news on social media, whether knowingly or unknowingly. Two main groups of users are identified: malicious and benign. Malicious users, the first group, are real individuals who intentionally share content they know is false, often driven by political or ideological motives. Some of these users may even receive payment to spread specific content or target a particular audience. (Zannettou et al., 2019).

The second group is challenging to analyze as it consists of users who share false information without realizing it, genuinely believing and trusting in its accuracy. These users repeatedly share such information through social networks on various occasions. For instance, they are more likely to re-share content when they believe it to be of high quality (Koohikamali & Sidorova, 2017).

Moreover, the diverse users who share posts on these platforms make it difficult to recognize the actual source of information. (Tandoc et al., 2018). The unclear origins of information make users appear as credible and socially close sources. (Buchanan & Benson, 2019). Fake news prevails on social media due to certain key features, as highlighted by researchers (Lazer et al., 2018; Rochlin, 2017; Zhang & Ghorbani, 2020). One crucial factor is the low entry barriers, as emphasized by Allcott and Gentzkow (2017), where creating an account is free. Some specialized social media companies offer services like selling followers (both real and bots), using bots to spread content, and posting content at scheduled intervals. For instance, achieving 300,000 followers on Twitter in a month is possible. (Gu et al., 2017).

Theoretical Framework

Uses and gratification theory

The Uses and Gratification by Katz et al. (1973-1974) explores how media affects individuals, emphasizing how people use media to fulfill their own desires. It shifts the focus to what users do with media rather than what media does to its users. The Uses and Gratifications theory focuses on the audience's active role in selecting and using media as per their preferences and needs. Individuals selectively choose media to gratify specific needs. Uses and Gratifications Theory recognizes that individuals have different needs and motivations for using media.

Relevancy of the Theory

On social media, the theory of uses and gratification guides us to understand how fake news affects female students. This theory says people use social media to meet their own needs. When we look at the impact of fake news on female students, it's like exploring the different roles social media plays in their lives – it's their source of fun, a place to share their creations, a hub for learning, a platform for business, an escape, a chill spot, a way to connect with the world, and seek knowledge. This theory helps us see how fake news weaves into these aspects of female students' social media experiences. Understanding the relevance of social media's diverse roles in the lives of female students provides insights into how the spread of fake news can permeate various aspects of their online experiences.

Methodology

A research methodology is the procedure a researcher carried for the purpose of data collection and analysis. In the present study, a survey technique is used for the purpose of data collection. The universe of the study is the Hazara

University. The researchers choose Hazara University as universe of the study because it is convenient and easy for researchers to collect the data from the relevant sample. Unit of analysis of the present research study is the female students who are studying in different departments of the Hazara University. 200 female students of Hazara University were selected for the survey using convenience sampling technique. The researchers used the questionnaire having close ended questions to collect the responses from the relevant sample.

Data Tabulation and Analysis

Present research study is based on survey technique to explore and investigate the effects of social media fake news on the female students of Hazara University. The questionnaire was used for the purpose of data collection. The data was collected according to the objectives of the study i.e., (i) To document frequency of using social media by female students (ii) To investigate which social media application female students use for news updates (iii) To explore which social media application youth consider spread more fake news (iv) To investigate what type of techniques students, use for counter check news and source (v) To documents opinion of the female students about fake news effects. The quantitative data was analyzed through descriptive statistics.

Demographic variables:

Table #1

Category	Values	Responses	%age	Cumulative percentage
Age				
	18-19	71	35.5	35.5
	20-21	87	43.5	79
	22-23	37	18.5	97.5
	More than 24	4	2	99.5
Semester				
	1 st	19	9.5	
	2 nd	60	30	
	3 rd	47	23.5	
	4 th	16	8	
	5 th	24	12	
	6 th	13	6.5	
	7 th	11	5.5	

	8 th	10	5	
Discipline				
Arts and Humanities		50	25	25
Social Sciences		91	45.5	70.5
Sciences		57	28.5	99
Miscellaneous		2	1	100
Level				
		BS	197	98.5
		M.Phil./MS	3	1.5

N=200

This table illustrates the demographic variables of female respondents and shows that 35.5% responses were of age between 18-19, 43.5% respondents were of age between 20-21, there were 18.5% respondents who belonged to age group of 22-23 and there were only 2% who had age group of more than 24. This table also shows that there were 9.5% of students from 1st semester, while 2nd semester students were about 30%, followed by 23.5% respondents who were from 3rd semester, 8% respondent were from 4th semester, while from 5th semester there were 12% respondents, followed by 6.5% respondents from 6th semester, while 5.5% and 5% respondents were from 7th and 8th semester respectively.

This table also shows discipline of respondents, here 25% respondents were from arts and humanities, however 45.5% were from social sciences, while science respondents were 28.5%, followed by 1% students from other fields. This table reveals the educational level of the respondents, there were 98.5% respondents from BS level while 1.5% from MPhil/MS level.

What type of activity do you engage mostly on social media?

Table # 2

Values	Responses	%age	C%
Entertainment	41	20.5	20.5
Information	90	45	65.5
News	59	29.5	95
Education	10	5	20.5
content creation	15	5.5	100

N=200

This table shows type of activities of the respondents on social media, here, 5.5% of the respondents use social media for content creation. Followed by

29.5% use it for news purposes, while 45% for information. However, 5% use social media platforms for education while 20% use for entertainment.

How frequently do you check social media for news updates?

Table # 3

Values	Responses	%age	Cumulative percentage
Not at all	10	5	5
To some extent	97	48.5	53.5
Rarely	63	31.5	85
Frequently	28	14	99

N=200

This table depicts the frequency of using social media for receiving news updates. So, table no# 3 shows 5% respondents said not at all, whereas 48.5% respondents use social media for news updates to some extent, while 31.5% witnessed rarely, 14% reported using it for news updates frequently.

Which of the following applications do you use frequently for news updates?

Table #4

Category	Values	Responses	%age	C %
Facebook				
	Not at all	35	17.5	17.5
	To some extent	97	48.5	66
	Rarely	51	25.5	91.5
	Frequently	14	7	98.5
	Very frequently	3	1.5	100
X (Twitter)				
	Not at all	17	8.5	8.5
	To some extent	80	40	48.5
	Rarely	76	38	86.5
	Frequently	25	12.5	99
	Very frequently	2	1	100
Instagram				
	Not at all	6	3	3

	To some extent	47	23.5	26.5
	Rarely	72	36	62.5
	Frequently	70	35	97.5
	Very frequently	5	2.5	100
WhatsApp				
	Not at all	13	6.5	6.5
	To some extent	66	33	39.5
	Rarely	77	38.5	78
	Frequently	38	19	97
	Very frequently	6	3	100
TikTok				
	Not at all	12	6	6
	To some extent	61	30.5	36.5
	Rarely	66	33	69.5
	Frequently	54	27	96.5
	Very frequently	7	3.5	100
YouTube				
	Not at all	35	17.5	17.5
	To some extent	61	30.5	48
	Rarely	63	31.5	79.5
	Frequently	34	17	96.5
	Very frequently	7	3.5	100

N=200

This table shows frequency of using social media applications for news updates. Therefore, this table indicates that 17.5% respondents selected not at all option for using Facebook, while 48.5% mentioned to some extent, however 25.5% indicated that they rarely use Facebook, 7% respondents use Facebook frequently, while 1.5% use it very frequently. This table gives percentage of Instagram users about 3% of female respondents do not use Instagram at all for news updates, while 23.5% indicated usage to some extent, 36% mentioned rarely however, 35% use Instagram frequently, followed by 2.5% use it very frequently.

Table also represents the percentage of users engaging with Twitter at different levels, here 8.5% respondents do not use X (Twitter) at all, 40% indicated they

use to some extent, while 38% respondents use Twitter/X rarely, 12.5% mentioned frequently, 1% use very frequently. This table gives percentage of YouTube female users, about 17.5% of female respondents do not use YouTube at all for news updates, while 30.5% indicated usage to some extent, 31.5% mentioned rarely however, 17% use YouTube frequently, followed by 3.5% use it very frequently.

Table no6 also indicates that 6.5% respondents use WhatsApp not at all for news updates, while 33% mentioned to some extent, whereas 38.5% indicated that they rarely use WhatsApp, therefore 19% respondents use WhatsApp frequently, while 3% use it very frequently.

This Table also represents the percentage of users engaging with TikTok at different levels, here 6% respondents do not use TikTok at all for news updates, whereas 30.5% indicated they use to some extent, while 33% respondents use TikTok rarely, 27% mentioned frequently, 3.5% use very frequently.

Which of the following social media applications do you think spread fake news frequently?

Table #5

Category	Values	Responses	%age	Cumulative percentage
Facebook				
	Not at all	34	17	17
	To some extent	81	40.5	57.5
	Rarely	59	29.5	87
	Frequently	21	10.5	97.5
	Very frequently	4	2	99.5
X(Twitter)				
	Not at all	10	5	5
	To some extent	95	47.5	52.5
	Rarely	63	31.5	84
	Frequently	27	13.5	97.5
	Very frequently	5	2.5	100
Instagram				
	Not at all	23	11.5	11.5

	To some extent	68	34	45.5
	Rarely	66	33	78.5
	Frequently	39	19.5	98
	Very frequently	4	2	100
WhatsApp				
	Not at all	17	8.5	8.5
	To some extent	71	35.5	44
	Rarely	69	34.5	78.5
	Frequently	41	20.5	99
	Very frequently	2	1	100
TikTok				
	Not at all	12	6	6
	To some extent	76	38	44
	Rarely	66	33	77
	Frequently	40	20	97
	Very frequently	6	3	100
YouTube				
	Not at all	25	12.5	12.5
	To some extent	81	40.5	53
	Rarely	53	26.5	79.5
	Frequently	38	19	98.5
	Very frequently	3	1.5	100

N=200

This table reveals the responses of respondents about social media platforms which they thought spread fake news frequently. Table no.5 indicates that 17% respondents believed that Facebook spread fake news not at all, however 40.5% thought it did to some extent, followed by 29.5% respondents who believed it did rarely, followed by 10.5% thought it did frequently, while 15.3% of respondents believed that Facebook spread fake news very frequently. This table indicates that 5% of respondents thought that X (Twitter) did not spread fake

news at all, while 47.5% believed it did to some extent, 31.5% felt that Twitter spread fake news rarely, 13.5% believed it did so frequently, and 2.5% respondents thought it did very frequently.

This table indicates that 11.5% respondents believed Instagram spread fake news, while 34% felt that Instagram spread fake news to some extent and 33% of respondents thought it did rarely, 19.5% believed it did so frequently, and 2% thought it did very frequently. This table reveals that WhatsApp did not spread fake news, 8.5% respondents believed 34.5% it rarely spread, 35.5% felt that WhatsApp spread to some extent, 20.5% of respondents thought it spread frequently, and 1% thought it did very frequently.

According to this table 3% of respondents thought TikTok spread fake news very frequently 20% believed it did so frequently, 38% felt that TikTok spread fake news to some extent, 6% of respondents thought it did not spread fake news at all, while 33% believed it rarely did.

This table also indicates that 12.5% of respondents thought that YouTube did not spread fake news at all, while 26.5% believed it rarely did, 1.5% thought it did very frequently, 40.5% felt that YouTube spread to some extent, meanwhile 19% believed it did so frequently.

How frequently do you use the following techniques for the confirmation of news and sharing of news?

Table # 6

Category	Values	Responses	%age	C%
Comments				
	Not at all	17	8.5	8.5
	To some extent	70	35	43.5
	Rarely	54	27	70.5
	Frequently	55	27.5	98
	Very frequently	4	2	100
Likes				
	Not at all	27	13.5	13.5
	To some extent	83	41.5	55
	Rarely	45	22.5	77.5
	Frequently	43	21.5	99
	Very frequently	2	1	100

Dislikes				
	Not at all	40	20	20
	To some extent	76	38	58
	Rarely	51	25.5	83.5
	Frequently	28	14	97.5
	Very frequently	5	2.5	100
Subscriptions				
	Not at all	50	25	25
	To some extent	83	41.5	66.5
	Rarely	44	22	88.5
	Frequently	20	10	98.5
	Very frequently	3	1.5	100
Share				
	Not at all	81	40.5	40.5
	To some extent	60	30	70.5
	Rarely	38	19	89.5
	Frequently	17	8.5	98
	Very frequently	4	2	100
Source				
	Not at all	34	17	17
	To some extent	83	41.5	58.5
	Rarely	60	30	88.5
	Frequently	21	10.5	99
	Very frequently	2	1	100

N=200

Table no 6 indicates the techniques used by the respondents for the confirmation of news and sharing of news. Here the table shows that about 8.5% of users employ the technique of checking comments, with 35% doing so to some extent, however 27% rarely, followed by 27.5% frequently, and 2% very frequently. This Table shows 20% of respondents do not use the "dislikes" technique at all to check the validity of news, with 38% doing so to some extent, whereas 25.5% rarely, therefore 14% frequently, and 2.5% very frequently. This indicates the varied use of the "dislikes" technique in assessing news validity among the surveyed individuals. Among female respondents, 13.5% does not use the

"likes" technique to verify news on social media platforms, while 41.5% do so to some extent, followed by 22.5% rarely, therefore 21.5% frequently, and 1% very frequently. Table also shows 17% of participants does not confirm the authenticity of news by employing the source verification technique marking not at all on the survey form. Additionally, 41.5% utilized this method to some extent, while 30% rarely checked the sources. A further 10.5% were frequent in checking sources, and 1% consistently applied the source verification technique for news validation.

Among female respondents, 25% do not check subscriptions at all to verify news, however 41.5% do so to some extent, whereas 22% rarely check subscriptions, therefore 10% frequently check, and 1.5% very frequently use subscription figures for news verification.

This table reveals 40.5% of respondents checked shares to verify news, with 30% doing so to some extent, 19% rarely checking shares, hence 8.5% frequently checking, and 2% very frequently using shares for news verification.

Do you agree that fake news discourage female to use social media?

Table # 7

Values	Responses	%age	C %
Strongly Disagree	8	4	4
Disagree	63	31.5	35.5
Neutral	73	36.5	72
Agree	55	27.5	99.5
Strongly Agree	1	0.5	100

N=200

This table shows agreement of respondents that are social media female users discouraged by encountering fake news? while using different platforms. Here, 4% of female users disagreed strongly, while 31.5% disagreed, followed by 36.5% were neutral, 27.5% agreed when 0.5% strongly agreed.

Do you agree that media should launch a campaign to create awareness among the masses about how to avoid fake news?

Table # 8

Values	Responses	%age	C %
Strongly Disagree	6	3	3

Disagree	50	25	28
Neutral	73	36.5	64.5
Agree	66	33	97.5
Strongly Agree	5	2.5	100

N=200

This table shows the frequency of respondent who agreed with the idea of launching a campaign to create awareness among masses to avoid and deal with the fake news. So, 3% of female respondents strongly disagreed, when 25% disagreed, 36.5% were neutral, followed by 33% who were agreed, while 2.5% strongly agreed.

Table # 9

Correlations

		How frequently do you check social media for news updates?	How frequently do you expose to fake news by using the following social media applications?
How frequently do you check social media for news updates?	Pearson Correlation	1	.023
	Sig. (2-tailed)		.750
	N	200	200
How frequently do you expose to fake news by using the following social media applications?	Pearson Correlation	.023	1
	Sig. (2-tailed)	.750	
	N	200	200

Alpha level was set on 0.5

Pearson correlation test was used to investigate that higher the use of social media higher to expose to fake news. The empirical analysis of the data reveals that there is no significant correlation between two variables. It means that higher the exposure to social media and social media applications does not mean that a person exposes to fake news. Therefore, the hypothesis got rejected.

Findings

The empirical analysis of the data reveals about the demographics of the respondents and reveals that overall majority of the respondents i.e. more than 43% have the age between 20 to 21 followed by more than 30% respondents studying in 2nd semester and more than 23% respondents studying in 3rd

semester while more than 45% respondents studying in social science subjects and more than 98% respondents studying in BS programs.

As far as activities on social media is concerned the empirical analysis of the data (Table 2) reveal that overall majority of the respondents i.e. 45% use social media for information followed by more than 29% respondents use social media for news and 20% respondents use social media for entertainment. The empirical analysis (Table 3) of the data reveals that overall, more than 48% respondents use social media for news updates to some extent followed by 31% respondents rarely check social media for news updates.

RQ1. Which social media application female students use for news updates?

The exclusive analysis of the data (Table 4) reveals that as far as social media applications use for news updates is concerned the empirical analysis reveals that overall, more than 37% respondents use Instagram for news updates followed by more than 30% use TikTok while WhatsApp 22% and respondents use YouTube more than 20% for news updates frequently.

RQ2. Which social media application spread more fake news?

The exclusive analysis of the data regarding spreading of fake news through social media applications reveals that overall majority of the respondents 23% think that TikTok social media applications spreads fake news more frequently while 21% respondents consider WhatsApp and Instagram with equal percentile and YouTube more than 20% spread fake news (see Table 5).

RQ3. How and what technique female students use when they receive fake news?

Data tabulation and its subsequent analysis reveals that more than 41% female respondents check the likes, subscription, and source for the confirmation of news followed more than 40 do not check likes, subscription, and source for the confirmation of news (Table 6).

The analysis of the data reveals (Table 8) that overall majority of the female respondents of Hazara University remained neutral i.e., 36% on the issue of awareness campaign launched by concern authorities followed by more than 35% female respondents agree that authorities should launch campaign to create awareness regarding the social media applications to encounter the fake news.

The basic assumption of the uses and gratification theory is that people use media to gratify their needs. Present research study reveals that female students

of Hazara University use social media and social media applications to gratify their need of information related to the issues of their concern.

Moreover, the study hypothesized, it is more likely higher exposure to social media higher the risk of exposure to fake news. Data tabulation, its analysis and empirical findings of the data reveals that there is no relationship between the two variables i.e. exposure to social media applications and exposure to fake news. Therefore, the hypothesis is rejected based on the findings of the study.

Conclusion

Fake news is one of the burning and latest issue faced by people who use social media and its different applications. Fake news is no doubt burning issue faced by everyone around the world. On the basis of findings and empirical analysis it is concluded that overall majority of the female students of Hazara University use social media for different purposes including information and entertainment. the empirical analysis of the data also reveals that overall majority of the female students of Hazara University check the likes, subscriptions, and source of information for the validity of the message or news. it is also concluded that female students of the Hazara University agree that the government should launch a proper and well-planned campaign to encounter the fake news and how to deal with it.

Limitation

Due to financial restraints and time, it was very difficult for the researchers to study each segment of the selected population.

Suggestions

This research should be conducted in large scale to get more information about the effects of fake news on social media users. Furthermore, the government and media organizations should launch a public awareness campaign to counter fake news. It is also suggested that people who use social media for information must confirm the news before sharing it on social media applications.

References

- Adriani, R. (2019). The evolution of fake news and the abuse of emerging technologies. *European Journal of Social Sciences*, 2(1), 18-24.
- Ahmad, I., Yousaf, M., Yousaf, S., & Ahmad, M. O. (2020). Fake news detection using machine learning ensemble methods. *Complexity*, 2020(1), 8885861.
- Allcott, Hunt, and Matthew Gentzkow. 2017. "Social Media and Fake News in the 2016 Election." *Journal of Economic Perspectives*, 31 (2): 211–36. DOI: 10.1257/jep.31.2.211
- Buchanan, Tom & Benson, Vladlena. (2019). Spreading Disinformation on Facebook: Do Trust in Message Source, Risk Propensity, or Personality Affect the Organic Reach of “Fake News”? *Social Media + Society*. 5. 205630511988865. 10.1177/2056305119888654.
- George, J. F., Gupta, M., Giordano, G., Mills, A. M., Tennant, V. M., & Lewis, C. C. (2018). The effects of communication media and culture on deception detection accuracy. *MIS Quarterly: Management Information Systems*
- Gomez-Miranda, M. E., Perez-Lopez, M. C., Argente-Linares, E., & Rodriguez-Ariza, L. (2015). The impact of organizational culture on competitiveness, effectiveness and efficiency in Spanish Moroccan international joint ventures. *Personnel Review*
- Gu, L., V. Kropotov and F. Yarochkin (2017) ‘The fake news machine: how propagandists abuse the Internet and manipulate the public’, *Trend Micro*, 13 JuneReferencesRapid Developments in Artificial Intelligence: how might the New Zealand government respond?
- Isaak, J., & Hanna, M. J. (2018). User data privacy: Facebook, Cambridge Analytica, and privacy protection. *Computer*, 51(8), 56-59.

- Hwang, Y. C., Yuan, S. T., & Weng, J. H. (2011). A study of the impacts of positive/negative feedback on collective wisdom—case study on social bookmarking sites. *Information Systems Frontiera*
- Katz, E., Blumler, J. G., & Gurevitch, M. (1973-1974). Uses and gratifications research. *Public Opinion Quarterly*, 37(4), 509–523. <https://doi.org/10.1086/268109>
- Koohikamali, M., & Sidorova, A. (2017). Information Re-Sharing on Social Network Sites in the Age of Fake News. *Informing Science*, 20.
- Kuem, J., Siponen, M., & Kim, S. S. (2017). To Cyberloaf or Not to Cyberloaf: The Impact of the Announcement of Formal Organizational Controls. *Journal of Management Information Systems*, 34(1), 141–176. <https://doi.org/10.1080/07421222.2017.1297173>
- Lazer et al., (2018). The science of fake news: Addressing fake news requires a multidisciplinary effort. Vol. 359, Issue 6380. Pp, 1094-1096, *Journal of Science*. DOI: [10.1126/science.aao2998](https://doi.org/10.1126/science.aao2998)
- Lyon, T. P., & Montgomery, A. W. (2015). The Means and End of Greenwash. *Organization & Environment*, 28(2), 223-249. <https://doi.org/10.1177/1086026615575332>
- Miller, A. R., & Tucker, C. (2013). Active social media management: the case of health care. *Information Systems Research*
- Nerur, S. P., Rasheed, A. A., & Natarajan, V. (2008). The intellectual structure of the strategic management field: an author co-citation analysis. *Strategic Management Journal*
- Nielsen, R., & Graves, L. (2017). "News you don't believe": audience perspectives on fake news (RISJ Factsheets). Reuters Institute for the Study of Journalism.
- Nielsen. (2016). *The Total Audience Report: Q1 2016*. New York, NY: Nielsen.

- Rochlin, N. (2017). Fake news: belief in post-truth. *Library hi tech*, 35(3), 386-392.
- Tandoc, E. C., Lim, Z. W., & Ling, R. (2017). Defining “Fake News”: A typology of scholarly definitions. *Digital Journalism*, 6(2), 137–153. <https://doi.org/10.1080/21670811.2017.1360143>
- Zannettou et al., (2019). The Web of False Information: Rumors, Fake News, Hoaxes, Clickbait, and Various Other Shenanigans. *Journal Vol. 11, No. 3*
- Zhang & Ghorbani, (2020). An overview of online fake news: Characterization, detection, and discussion. *Information Processing & Management* Volume 57, Issue 2, March 2020, 102025