Fake News on COVID-19: A Comparative Analysis of Facebook and Twitter

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ABSTRACT

Aim of the Study: Along with the COVID-19 pandemic, we are also fighting 'Fake news. Fake news and rumors are rampant on social media. Believing in rumors can cause significant harm. The global spread of the novel coronavirus is affected by the spread of related misinformation, the so-called COVID-19 fake news that makes populations more vulnerable to the disease through resistance to mitigation efforts. Researchers analyzed the prevalence and diffusion of links to misinformation content about the pandemic across two major social media platforms, Twitter and Facebook.

Methodology: A qualitative and quantitative research design has been applied to this research to study fake news usage as a strategic tool of communication on social media, especially Facebook and Twitter. The data was analyzed on Microsoft excel 2016 version software to examine the questions in this study. This study applied content examination procedure to know the recurrence of phony news on Facebook and Twitter for quite some time from 26th February 2020 to 27th May 2020.

Findings: After the data analysis, the study found that in the first wave of coronavirus, Pakistani political personality-less use of social media like that on official Facebook pages and Twitter accounts. Responsible personalities did not share information about the corona case from time to time in one day via Facebook pages and Twitter accounts.

Conclusion: This research concluded that at the government level official did not actively use social media in the pandemic situation in Pakistan. They have to use in normal ways not to update their followers in which Facebook and Twitter but when they check others political issues they have actively used social media accounts but in the pandemic situation they have to less use of social media platforms. Fake news about COVID-19 is spread over Facebook, Twitter, and other social media platforms. Pakistan is also facing the issue of fake news about COVID-19.

Keywords: COVID-19, Fake News, Disinformation, Misinformation, Infodemic, Facebook, Twitter.

Introduction

On social media like Facebook and Twitter, the dispersal of data impacts the mental attitude of clients who use consume them. The concepts like fake news; fabricated content verifiably false, are emerging and holding ground on social media more pervasively. Internet has been in use in Pakistan since the 1990s, but its consumption has become ubiquitous at the beginning of the 21st century. In 2001, the internet users were only 1.3 percent of the total population using internet, this increased to 6.5 percent by the end of 2006, and about 10 percent in 2012 (Shabir, Mahmood, Hameed, Safdar, & Gilani, 2014). The rapid growth of internet did not stop and as of August 2020, it has become the 10th largest internet users' population with 40.95 percent which is roughly 76.83 million population.

Twitter, Facebook and other social networking sites, blogs and websites, etc. allow us to spread our message to our intended audience within no time and in a very cost-effective manner. Apart from its dissemination function, it also facilitates us in building collaboration, sharing, participation, and empowerment (Rybalko & Seltzer, 2010).

The term infodemic has been begotten to lay out the dangers of deception peculiarities during the administration of illness episodes since it could even accelerate the plague interaction by affecting and dividing social reaction. The issues connected with the current infodemics are without a doubt being handled by the logical writing according to different points of view including the elements of disdain discourse, fear inspired notions, impact of bots and mechanized records, and the dangers of falsehood (Cinelli, Matteo; Galeazzi, Alessandro, 2020).

Fake news is a chronicled crisis of human correspondence that produces strain, disharmony, and misinterpretation in human culture. While creating a world with trend-setting innovations, tech-literates are overseeing the fake information. Amid this whimsical circumstance, fake news on online media appears to be too hard to handle. This examination assists with understanding the unique idea of fake news identified with the COVID-19 pandemic that may assist with identifying fake news on web-based media Facebook and Twitter with less exertion (Al-Zaman, Md. Sayeed, 2020).

Consequently, bogus news is the same old thing that marvels, purported counterfeit news made information that impersonates news media contents in structure; however, progressive interaction or expectation has become a focal point of consideration lately. Fake news addresses a significant experiment for clinicians - what is it about human thinking that permits individuals to succumb to glaringly bogus substances (Bago & Rand, 2020)? The COVID-19 pandemic tends to be an extensive test to overall human flourishing. Similarly, like various challenges, the impact of coronavirus pandemic depends upon the exercises of individual occupants, and in this manner, the idea of the information to which people are uncovered. Indeed, even from a skeptical stance, misdirection of this sort might makes people go to lacking fixes, similarly as to one or the other explode or even more hazardously, underreact accordingly, it is basic to grasp the reason why people acknowledge and share sham and real information related to COVID-19 and to cultivate interventions to extend the idea of the information that people share on the web (Bago B. R., 2020).

Manufactured news is a chronicled emergency of human correspondence that produces strain, disharmony and also misconception in human culture. In the time of computerized correspondence and social organizing, it's anything but another energy around the world. Call it in numerous names falsehood, misinformation, bogus news, off-base news, and gossip, however, the issue remains nearly the equivalent (Bago & Rand, 2020). India as a helpless South Asian nation and the greatest popular government on the planet has still been experiencing blossoming on the web disinformation news. Various issues, like medical services, prescription, sickness, religion, and governmental issues have additionally partaken in this fake news emergency. Amid this sporadic circumstance, counterfeit news on internet-based media gives off an impression of being difficult to handle (Al-Zaman, 2020).

The worldwide spread of the novel Covid is impacted by the spread of COVID-19 phony news. Inside this specific situation, the spread of bogus stories in our data climate can have intensely bad repercussions on general wellbeing and security (Yang & Filippo, 2021).

New Media/Digital Media in Pakistan

Since the start of the twenty-first century, new media advancements have given boost to job market and enhanced world-wide correspondence. The admittance to data is swifter and less blue-penciled at this point. It has given a better approach for an opportunity of articulation. An individual currently can scatter his message all over the planet without utilizing any ordinary medium that might edit or alter his message. Over the most recent couple of years, online media since its drive-in created nations is being utilized in Pakistan (Shafiq, 2015).

Pakistan was among the top 20 countries having 20,431,000 internet users, about 121 million mobile subscribers. Pakistan stood at 57th among countries for Internet Hosts of 365,813. People were more attracted by the charm of social media applications like Facebook, Twitter, and soon with no time to spare for traditional media to attain that position which now social media is enjoying. Social media spread help us connect with world instantly and cheaply. Apart from its dissemination function, it also facilitates us in building collaboration, sharing, participation, and empowerment (Rybalko & Seltzer, 2010).

Given the obscure future, online web-based media are utilized to look for data and updates about COVID-19 on famous social applications like Facebook and Twitter that brought about an unexpected expansion being used. For example, App Annie reports that the all-out time each day consumed on friendly applications expanded by 20% in the main quarter of 2020 (Khana, Yu, Islam, Sheikh, & Khan, 2018).

Fake news is inevitable in internet-based media, placing general prosperity in harm's way. The size of the crisis and the inescapability of the misleading information requires that analysts, prosperity information specialists, and essayists practice their master commitment to help the general populace with perceiving and identifying fake reports. They should ensure that definite information is conveyed and dispersed. The unexpected start of the COVID-19 pandemic has been joined by an impact of deception about the sickness. As the COVID-19 pandemic spread, online news sources emerged as a critical strategy for the partner, similarly as a technique for searching for and sharing information about the infection. At the same time, this enabled an impact of unchecked information and the spread of trickiness. Electronic media use extended by 20 to 87% all through the planet during the crisis. There has been tattle spreading through electronic media accounts that ideal alcohol can fix COVID-19 which has achieved numerous fakers passing on from hurting (Naeem, Bhatti, & Khan, 2021).

In 1994, the main long-range informal communication site was made, and from that point forward, a lot more interpersonal interaction locales are being made. Since the last decade, the Web has turned into a fundamental piece of regular day-to-day existence (Amichai, Hamburger, & Vinitzky, 2010).

Counterfeit News on Facebook

It's appalling to say that the very stage that is utilized to get out true word data can likewise be utilized to trick crowds. Finneman and Thomas (2018) expressed that the ascent of 'counterfeit news' is an aftereffect of the web being a wellspring of information data that permits anyone to post on the web and connect with crowds. There is no question that non-writers currently can contact a wide crowd (Jr, Lim, & Ling, 2017).

In the United States, a survey directed by Ipsos for BuzzFeed News showed that 75% of American grown-ups had seen "counterfeit news" stories to be precise. It was likewise detailed that the main 20 'counterfeit reports' connected with races came from deception or lie destinations. These bogus stories had produced 8,711,000 commitments, including offers, remarks, and different responses on the stage (Singer-Vine & Silverman, 2016).

A few researchers contended that phony news had extraordinarily assisted Donald Trump with winning the races and getting chosen as President. Inspirations driving making bogus news can change, for example, on account of the youthful young people in Macedonia. They deliberately designated Trump's allies during the decisions for absolutely monetary incomes through promoting. In opposite, certain individuals make counterfeit news to help a philosophy, for example, the news manufactured by conservative backings during the US 2016 decisions (Al-Jalabneh & Safori, 2016).

Fake News on Twitter

The term deception is all the more normally used to allude explicitly to when bogus data is shared inadvertently, while disinformation is utilized to allude to bogus data shared purposely. Twitter clients have issues separating between valid and bogus bits of gossip. This incorporates clients of great standing, for example, news associations who might give remedial explanations sometime in the not too distant future if essential. This highlights the need of managing recently arising tales around emergencies like the flare-up of COVID-19 (Zubiaga, Liakata, Procter, Hoi, & Tolmie, 2016).

Falsehood on COVID-19 seems, by all accounts, to be spreading quickly via web-based media. Besides, none of the past examinations has explored how the language utilization of COVID-19 deception varies from other COVID-19 tweets or which Twitter accounts are related to the spreading of COVID-19 falsehood. Even though there have effectively been a few signs that bots may be involved most of the posts are produced by accounts that are probably going to be human (Kai-Cheng, et al., 2020).

The ubiquity of Online Social Networks (OSNs) has quickly expanded lately. Web-based media has formed the advanced world to a degree it is presently an imperative piece of life for the majority of us (Gazi, Cetin, & Cakı, 2017). The fast and broad reception of online administrations is affecting and changing how we access data, how we coordinate to request a political change, and how we track down accomplices. One of the principal benefits and attractions of online media is the way that it is quick and free. This innovation has significantly reshaped the news and media ventures since turning into a prevailing and developing wellspring of information and data for countless individuals (Kaplan, 2015).

Social media has logically changed how we consume and make news. The simplicity of creating and circulating news through OSNs (Online Social Network's) has likewise all the while forcefully expanded the spread of phony news. Counterfeit News is not another peculiarity, it existed well before the appearance of online media (Albright, 2016). Even though promulgation missions and the spread of manufactured news might have been around for quite a long time, their quick and compelling scattering just became conceivable through a cutting-edge innovation like the web. The web changed phony news, paying little mind to how the falsehood is shown: regardless of whether we are discussing talk, disinformation, or one-sided, messy, incorrect announcing (Wong, 2016).

Problem Statement

Fake News has recently appeared as an emerging social issue all over the world, especially in Pakistan. Even most of the official social networking accounts also post fake news which creates a lot of panic in minds of the users. Also due to the credibility of the official pages, people used to share these posts much more quickly. In addition, fake news related to COVID-19 are most common on social networking sites for more than one year. During the first wave of COVID-19, some of the fake news got a lot of comments and sentiment reactions on Facebook and Twitter. So this study aims at what kind of news has been popular via web-based media stages connected with COVID-19 either health, education, economy, or any other. This research aims to identify that which of the above mentioned social networking sites leads in the production of fake news towards education, economy, and health, and masses' reaction to these posts/stories.

Following are the primary targets of the paper:

- To examine the use of social media (i.e. Facebook and Twitter) in disseminating news about COVID-19 in Pakistan.

- To identify the major themes (i.e. Education, Health, and Economy) in the fake news about COVID-19 on social media (i.e. Facebook and Twitter).

- To investigate the reactions of social media users to the fake news about COVID-19.

Literature Review

This particular research work intends to study and explore an important issue of online media sites in which Facebook and Twitter fake news as a strategic tool of communication used in COVID-19. So the current study probes the same phenomena of fake news on Twitter and Facebook during the coronavirus in Pakistans. The major objective of the study will aim at probing fake news used during coronavirus and also to assess the online users' *reactions* to 'fake news' shared on Facebook and Twitter official pages in Pakistan. The flare-up of COVID-19 encounters another equal plague driven by fake news. It essentially disturbs general wellbeing correspondence and induces mass uneasiness. In the interim, as a brief reaction, a couple of studies have effectively shown up in the academic field that arrangement with online media delivered fabricated news identified with the COVID-19 pandemic. A few explore examine the fake news engendering from more conduct, social, and sociolinguistic points of view (Al-Zaman, 2020).

The connivance film 'Pandemic' onlined in Pakistan on February 23, 2020, gathering a large number of perspectives and rapidly getting perhaps the most far and wide instance of coronavirus-related falsehood news. Consequently, regardless, picking what considers misdirection about COVID-19 is a tangled matter, as pieces of information into the purposes behind and meds for the contamination make after a long enough timeline. Notwithstanding, it is ending up being logically sure that trickery about COVID-19 is a commonplace issue. For example, a study by the United Kingdom saw that half (46%) of the United Kingdom populace point by point receptiveness to counterfeit news about the COVID-19. Near results (48%) have been represented by Pew in the United States. In particular, among those revealed, nearly (66%) declared seeing it reliably, which is dangerous as repeated receptiveness is known to assemble confidence in created news. Furthermore, another examination of the most saw COVID-19 YouTube accounts found that over 25% of the top accounts about the contamination contained misleading information, coming to more than 62 million points of view all over the planet (Linden, Roozenbeek, & Compton, 2020).

Fake news has begun viciousness in Bangladesh over the last 7-8 years, with exceptionally a couple of events happening where Facebook was the medium to spread the abuse. In the current situation, people have taken the Facebook social affair to grant, inspect, and share their insights and viewpoints, where a larger piece of them appear to spread trickiness about the nonstop COVID-19 episode. In December 2018, days before the public choices, Facebook and Twitter suspended fake news pages and records associated with the Bangladeshi government for conveying antagonistic to opposition material (Islam & Siddique, 2020). In April 2019, the police registered 14 cases under the Digital Protection Act related to the spread of COVID-19 information on internet-based media, and 15 people were arrested. The amount of 40 spreads of trickery continues to extend as do Corona cases. Severe COVID-19 pieces of noise are similarly all around uncovered explicitly, the disease doesn't corrupt Muslims and makes it all the harder for all stressed to contain the two pandemics and infodemics (Islam & Siddique, 2020).

After the eject of the latest Coronavirus started, Facebook has been engaging a comparative flood of sham reports and deception. Deluding posts will spread rapidly because anybody can say anything to anybody, with more than a large number of clients online reliably various news sources have gotten universal without the control of article and could without a doubt be trusted or focused. Right now, certain individuals are endeavoring to create disarray and hypothesis about the COVID-19 flare-up in the public eye by spreading bits of gossip and deception (Islam & Siddique, 2020).

An investigation model to explore why online media customers share fake news on COVID-19 shows that "a singular's confidence in web-based information and saw data overburden are solid indicators of unconfirmed data sharing. Examine three propensities corresponding to the COVID-19 pandemic the development of fake drugs, fabricated news, and medicine bogus data. While fake news and falsehood remedies both unfavorably influence general prosperity, they in like manner complement genuine drugs. For example, Cain the assistant data assessment observes that people are viably consuming news that climbs from 60% during pre-COVID-19-opportunity to 92% during the Coronavirus pandemic. The assessment similarly shows that phony news revelation limit among people rises by 12% during the pandemic (Sayeed & Al-Zaman, 2020).

A part of the assessments is battling that internet-based media customers share counterfeit news more than verification-based news related to the COVID-19 pandemic which is one of the fundamental threats to society. Particularly passed on counterfeit news in electronic media, according to them prompts contradicting and vulnerable dynamic. This investigation additionally breaks down information from various online media stages (Sayeed & Al-Zaman, 2020).

Regardless no assessment keeps an eye on the need to perceive the moderate thought of COVID-19 related phony news that is conveyed, lived, and caused in internet-based media. To interface this data opening this examination endeavors to research the fundamental parts of online media-based fake news (Sayeed & Al-Zaman, 2020).

Online media have created uncommon scale and speed in the spread of this sort of made-up news. This peculiarity is likewise connected with the development of elective wellsprings of data connected to populism and the extreme right that seek after international goals and interests, by producing mayhem and disarray through data (Ripolles & Andreu, 2020).

Many investigations provided details regarding the presence of deception via online media during the hour of pestilences. These examinations zeroed in on explicit online media stages including Twitter and Facebook. The most widely recognized methodology was a content-based examination of inspected social media posts, pictures, and recordings to check the subjects of online conversations and gauge the commonness of falsehood; notwithstanding, customary methodologies like subjective examinations of online media content (Yang, et al., 2021).

The WHO (2020) noticed that, as well as battling a pandemic, the world is likewise battling an infodemic (of falsehood). Fake news connected with COVID-19 cuts across various regions, for example, the beginning of the infection, it is objective and avoidance and how to control its spread. noticed that fake news represents a genuine danger to worldwide prosperity and worldwide viewpoint as it has been utilized to advance illness episodes, disdain, wrongdoing, prejudice, and war (Igbinovia, Okuonghae, & Adebayo, 2020).

This disease has affected many people's lives in different nations. With huge amounts of people pushed out of open spots, there are at this point various online media discussions on these eccentricities (Su, Xue, & Liu, 2020). The conversation of COVID-19 has kept on reaching out as friendly collaborations in web-based space develop, with expanding numbers moving to online media for both organization and data (Abbas, et al., 2020). Due to the improvement of the primary sort of web-based media, different kinds of these organization apparatuses have been created and for some, individuals utilizing these organizations is viewed as a day by day schedule Instagram, Telegram, Facebook, Twitter, and WhatsApp are among the main sites and well known interpersonal interaction applications (Amani, et al., 2020).

Then again, spreading reports and invalid data and the absence of checking of these organizations are among online media dangers (Shoaei & Dastani, 2020). Taking everything into account, these thoughts and data are consistently critical anyway not particularly material information on the Internet. Sham information may be shared, provoking stupid clinical ideas or extended strain (Wang, Wang, Ye, Zhu, & Lee, 2015).

During the COVID-19 pandemic, immense quantities of individuals utilized online media to trade and acquire data in regards to COVID-19. With the development of online systems administration and social advances, wide-open association in crisis reaction has been expanded by the boundless utilization of web-based media (Goodchild & Glennon, 2010).

Twitter is one of the most famous online media during emergencies and catastrophes because of its data resharing abilities. Twitter is an apparatus for sharing data and is additionally viewed as a type of online media that contributes altogether to the communications between its clients (Vieweg, 2010). One of the main instances of the adverse consequence of bogus news is in the field of wellbeing. In this unique circumstance, examinations uncovered that deception can have extreme ramifications for general wellbeing (Scheufele & Krause, 2018).

The public authority has what should be done in such a manner. Furthermore, individuals ought to outfit themselves with satisfactory media proficiency and computerized instruction to save themselves from succumbing to counterfeit news (Tawhidur, 2020).

It becomes fundamental to carry a productive framework to identify the phony news as the news content is assorted as far as style and subject in which it is composed. A large portion of the strategies recommended in the writing to distinguish counterfeit news manage the issue as a characterization task by partner marks as phony or genuine, valid or bogus, and so on with a particular text (Hussain, Hasan, Rahman, Protim, & Hasan, 2020).

The novel coronavirus pandemic has impacted worldwide wellbeing and the economy. Web-based media and Internet utilization to look for and share data about the infection have expanded hugely (Baum, Menczer, Metzger, & Pennycook, 2018).

Since the start of December 2019, the coronavirus illness (COVID-19) has spread quickly all over the planet, which has prompted expanded conversations across online stages. These discussions have additionally included different intrigues shared by web-based media clients. Among them, a famous hypothesis has connected 5G to the spread of COVID-19, prompting deception and the consumption of 5G pinnacles in the United Kingdom. The comprehension of the drivers of phony news and fast approaches situated to detach and discount falsehood are keys to fighting it (Ahmed, Vidal Alaball, & Segui, 2020). The spread of a novel coronavirus in the previous months has changed phenomenally the regular daily existence of individuals on a worldwide scale (Zarocostas, 2020).

Also, to pandemics, infodemics could be considered as flare-ups of bogus bits of hearsay and questionable news with surprising impacts on friendly elements which can significantly expand pestilence spread (Gallotti, Valle, Castaldo, Sacco, & Domenico, 2020).

If the infodemic is without a doubt portrayed by malevolent substance, one may expect a higher extent of this substance to come basically from low-validity sources that come up short on the news media's publication standards and cycles for guaranteeing the exactness and believability of data" because the attribution of 'phoniness' isn't at the level of the story however at that of the distributor (Broniatowski, et al., 2020).

Twitter clients, specifically, are known for sharing and consuming news 59% of Twitter clients portray it as great or amazingly really great for sharing preventive wellbeing data (Singh, et al., 2020).

The spread of fake news social media turned into a public worry in the United States after the 2016 official political race. In 1925, Harper's Magazine distributed an article named "Counterfeit news and general society," criticizing the manners by which arising advances had made it progressively hard to isolate talk from reality (Grinberg, Joseph, Friedland, Swire-Thompson, & Lazer, 2020).

Research Questions

RQ-1: Which social media platforms (i.e. Facebook and Twitter) have been used to spread the news about COVID-19, and to what extent?

RQ-2: What have been the major themes (i.e. Education, Health, and Economy) presented in the news about COVID-19 on social media (i.e. Facebook and Twitter)?

RQ-3: In what thematic areas, and to what extent, was fake news shared on social media?

RQ-4: What were the reactions of social media users to the fake news about COVID-19?

Method

A qualitative and quantitative research design has been applied to this research to study fake news usage as a strategic tool of communication on social media, especially Facebook and Twitter. However, there seems to be a gap in studies in terms of qualitative analysis because to understand the impact of the Facebook posts and Twitter there is a need to qualitatively analyze the facts.

The researchers used qualitative and quantitative research techniques to not only identify and analyze fake news but also to study. The data was analyzed on Microsoft excel 2016 version software to examine the questions in this study. This study applied content examination procedure to know the recurrence of phony news on Facebook and Twitter for quite some time from 26th February 2020 to 27th May 2020.

Meaning and Identification of a Fake News

Fake news is used as a propaganda tool for education, health, and economic gains, having the fake connection between visuals and captions, facts and figures, genuine content is articulated in a particular fashion to confuse the audience, imposter content, incorrect content to harm and deceive and some time with no intention to harm, etc. (Wadle, 2017).

The use of fake news became common from the beginning of the 21st century. So the focus of interest for research scholars was shifted from traditional media analysis to online media platforms (Thielen, 2018).

Following have been taken as the indicators of Fake News:

- Fake or misleading cases as news, where these are deceiving by plan.

- Inaccurate or unreliable information or false beliefs.

- Falsehoods by manipulating information.

- Disinformation and distortions of information.

Fake news has transformed into a questionable, especially tested issue lately. However, in a public talk, fake news is regularly used to suggest a couple of particular characteristics. The shortfall of clarity around what unequivocally fake news is made understanding the social harms that it makes and making deals with any consequences regarding these harms inconvenient (Verstraete et al., 2021).

The researchers formulated 4 categories Entirely Fake News, Distortion, Exaggeration, and False Connection. They were guided by the definition of Claire (Wadle, 2017) who classified fake news into seven but much-elaborated categories including;

i. **Satire or Parody:** Usage of society content anyway no expect to cause hurt aside from might potentially deceive.

ii. **Misleading Content**; Deceiving usage of information to layout an issue or individual. Misleading use of information, for example by presenting comment as fact.

iii. **Imposter substance**; When genuine sources are mirrored and imitated as a legitimate source.

iv. **Fabricated substance**; News content that is 100 % counterfeit and incorrect, expected to deceive and cause harm. completely false content.

v. **False affiliation**; When highlights, visuals, factual elements, or captions don't maintain the substance.

vi. **False setting**: When the authentic substance is granted to sham intelligent information.

vii. **Manipulated Content**: Distortion of genuine information or imagery, for example, a headline that is made more sensationalist, often popularised by 'clickbait. When ensured information or imagery is controlled to swindle (Wadle, Claire, 2017).

Variables of the Study

This study analyzed the prominent fake news related to the COVID-19 pandemic spread in social media (i.e. Facebook and Twitter). The three boundaries of the examination are subjects, content sorts, sources, and goals. To begin with, the three significant subjects of phony news are wellbeing, instruction, and economy. Second, the seven sorts of phony news substance have four primary sorts: text, photograph, sound, and video, and three consolidated sorts: text and photographs; text and video and text and photograph and video.

In this study, fake news classified into three themes: education, health, and economy. Although it tends to be predominant in education, health fake news is also common and it was expected that, in the COVID-19 crisis, it was being widely disseminated. This study analyzes the fake news related to education, health, and economy during the COVID-19 many of the fake news about education sectors are closed and much fake news is shared related to the health sector that coronavirus not dangerous but health department declared fake information related to COVID-19. The third one is fake news that is posted/shared related to the economy that shops and marriage halls will close for the next two months but the government declared that is fake news.

Population and Sampling

The population of the study checked those declared fake news related to COVID-19 are posted on social networking sites (SNS) Facebook and Twitter during a pandemic in Pakistan. All those fake news stories are posted on official social networking sites, accounts which create a panic on social media users. When any fake news is posted by official accounts many peoples have followed them.

In this study, research sample was social networking sites in which the study work on the most popular declared fake news related to COVID-19 and much effective online media platforms. The design is to pick Twitter and Facebook as a sample because most educated people are used Twitter and Facebook just to gain information and share a post they did not know about the post is real or fake.

The period of study was three months from 26th February 2020 to 27th May 2020 (92 days). The reason for the importance of this particular point of time is that it was in much fake news are circulating on Facebook and Twitter because at this time the first phase of lockdown in Pakistan and many peoples are staying at home due to increasing the coronavirus cases and mostly peoples are too used social media tools for spending time at home and did not check any information before sharing connected with COVID-19 on friendly networking sites (Facebook and Twitter) in this way create a misunderstanding among the peoples.

Results and Findings

The qualitative and quantitative research methodology is adopted to analyze the data. The researcher used qualitative and quantitative research techniques to not only identify and analyze fake news but also to study the sentiments that how users reacted to the post identified fake; completely or partially.

The analyst took official Facebook pages and Twitter records of Federal Minister of Education Mr. Shafqat Mahmood, Ministry of Finance, and Special Assistant to Prime Minister on Health Dr. Zafar Mirza. As the time frame of about 92 days, Fake news on social media (i.e. Facebook and Twitter) related to COVID-19 in Pakistan were set.

RQ-1: Which social media platforms (i.e. Facebook and Twitter) have been used to spread the news about COVID-19, and to what extent?

Table 1: *Social media used to spread the news about COVID-19 and others*.

Social Media	COVID-19	Others	Total
	No. of Post/Tweets	No. of Post/Tweets	No. of Post/Tweets
Facebook	27 (14.7%)	14 (25.5%)	41 (17.2%)
Twitter	156 (85.3%)	41 (74.5%)	197 (83.8%)
Total	**183**	**55**	**238**

Above table 1 shows that the use of social media tools Facebook and Twitter have much used for spreading the news through the search option of official Facebook pages and Twitter accounts. About 27 official Facebook posts and 156 tweets related to COVID-19, on the other side 14 other Facebook posts and 41 tweets related to the political campaign were analyzed respectively.

RQ-2: What have been the major themes (i.e. Education, Health and Economy) presented in the news about COVID-19 on social media (i.e. Facebook and Twitter)?

Table 2: *Major themes on social media to presented news about COVID-19*.

Themes	Facebook	Twitter	Total
	No. of Posts	No. of Tweets	No. of Posts/Tweets
Education	1 (3.7%)	53 (33.9%)	54 (29.5%)
Health	22 (81.5%)	100 (64.2%)	122 (66.7%)
Economy	4 (14.8%)	3 (1.9%)	7 (3.8%)
Total	**27**	**156**	**183**

Table 2 shows that the major themes have to be presented in the news about COVID-19 in which official Facebook and Twitter accounts. Table 2 shows the major themes of this research through the search option of official Facebook pages and Twitter accounts about the 27 Facebook posts and 156 tweets during the 92 days of the research period.

RQ-3: In what thematic areas, and to what extent, was fake news shared on social media?

Table 3: *Thematic area/ Fake news shared on social media*.

Themes	Facebook (No of Post)		Twitter (No of Tweets)		Total (No of Post and Tweet)	
	Fake	Non-Fake	Fake	Non-Fake	Fake	Non-Fake
Education	0	1	0	22	0	23
Health	0	22	1	99	1	121
Economy	0	4	0	3	0	7
Total	**0**	**27**	**1**	**124**	**1**	**151**

Tables 3 shows that in the health sector in which Dr. Zafar Mirza has non-fake news 22 Facebook posts and on Twitter accounts 100 tweets on official account in which 99 non-fake news and one tweet in fake news connected with COVID-19 in the examination time frame of 92 days. The percentage of fake news in the above table is 0.8%.

When the first positive corona cases were reported in Pakistan the Government of Pakistan take serious action to control the ratio of positive cases. The government of Pakistan decided to close all educational sectors in which schools, colleges, universities, and public transport section and closed markets. In this panic, situation people are staying at home and getting updated information regarding education, health, and economy from the responsible Facebook pages and Twitter accounts. After the data analysis results show that most social media users are getting information via Facebook pages and other Twitter users get information from official Twitter accounts in which results shows that some social media users discuss coronavirus on Facebook pages and mostly users discussion of Twitter and retweet. So, after the data analysis, the results show the thematic area in which the health sector was shared fake news on social media platforms i.e. Twitter.

RQ-4: What were the reactions of social media users to the fake news about COVID-19?

Table 4: *Reaction on Fake news/Tweets*.

Social Media	Reactions			
Tweets	Retweets	Likes	Positive	Negative
1	48	174	4	4

Above table 4.4 shows that one fake news, 174 Likes, and 48 retweets on the official Twitter account of former Special Assistant to Prime Minister on health Dr. Zafar Mirza in which 4 was positive tweets and 4 was negative and others 40 Twitter users are just questions to Dr. Zafar Mirza about COVID-19. These 40 Twitter users like these fake news tweets and perceived them as real.

The above table shows that Dr. Zafar Mirza was tweeted a video message on March 6, 2020, on official Twitter account about the coronavirus pandemic in this tweet Dr. Jawad Asghar, Epidemiologist was shared information about COVID-19 in this video message Dr. Jawad Asghar, Epidemiologist was said that Is eating onions useful to prevent coronavirus? By the way, eating onions is very good for human health. There are also Sunni prophecies that it has cures for many diseases but it is not of any benefit for the coronavirus. Onion has not saved a man from the coronavirus. Can use more water during the day against the coronavirus and keep my throat moist with water? A person should drink water frequently during the day. It is also good for human health. Get up in the morning and moisten the throat with lukewarm water which is good for throat health but no benefit for coronavirus. Could not it be good for health but there is no help against Corona. Another Dr. Jawad Asghar, can wear a surgical mask to prevent corona? Wearing a surgical mask does not prevent any virus. Coronavirus is another place. A surgical mask does not protect against any disease. However, it protects one person against respiratory disease from another person. Does not save I urge the public not to buy the surgical mask as it does not protect against the coronavirus at all, so there is no point in buying it. Coronavirus is a virus just like any other virus, we should not be afraid of it but fight it.

All above sentiments researcher find that three sub-themes on fake news much used onion and water and no need to wear a mask and discuss travel history in these reactions.

In which health sector four sub themes were discussed related to COVID-19.

- Used of onion
- Much use of water
- Surgical mask
- Travel

Table 5: *Sentiments of about fake new on Twitter and You Tube.*

Themes	Twitter	You Tube	Total
	No. of Reactions	No. of Reactions	No. of Tweets/You Tube
Onion	0 (0%)	1 (33.3%)	1 (9.0%)
Water	0 (0%)	1 (33.3%)	1 (9.0%)
Surgical Mask	3 (37.5%)	1 (33.3%)	4 (36.5%)
Travel	5 (62.5%)	0 (0%)	5 (45.5%)
Total	**8**	**3**	**11**

Above table 5 show that in these reactions which are about fake news three themes were discussed on Twitter reactions Onion and water were 0% discussed and three reactions on wearing a surgical mask on Twitter and five reactions on traveling during the COVID-19 on this fake news. On YouTube, social media users were fewer reactions as compared to Twitter and one reaction on onion and water used and zero percent comments about travel. So, results show that more reactions on Twitter as compared to YouTube like that 45.5 percent user's reactions out of 100 percent on Twitter.

After the data analysis, this study finds that in the first wave of coronavirus Pakistani political personality-less use of social media like that on official Facebook pages and Twitter accounts. It's a big blunder by these responsible personalities they did not share information about the corona case from time to time in one day via Facebook pages and Twitter accounts.

Discussion

Our results are reliable with a consideration-based record of COVID-19 falsehood transmission via web-based media (for example Facebook and Twitter). This exploration has significant hypothetical and useful ramifications. According to a hypothetical point of view, our discoveries shed new light on the hypothetical viewpoint that distractedness assumes a significant part in the sharing of deception connected with COVID019 on Facebook and Twitter.

Our results indicate that the primary drivers of fake news information tend to be high-profile, official, and verified Facebook pages and Twitter accounts. We additionally observe proof of coordination among accounts spreading deception content on the two stages, including many constrained by compelling associations. The proportion of low-to high-validity data on Facebook is lower than on Twitter, recommending that Twitter might be more successful.

So, analysis the all official Facebook pages and Twitter accounts. In which found one fake news in the health sector and other two themes education and economy. After finding the fake news in the health sector on Twitter in this tweet three points was discussed about coronavirus first one use of face masks and use onion and water during the COVID-19 when the researcher analysis the sentiments on this video message was shared on Twitter and YouTube, In this video, a message found that three sub-themes in this use of onion, use of water and use of surgical mask but when analysis the sentiments on Twitter and YouTube, in Twitter user, did not any reaction on this video like that use of onion and water but three user comments on a surgical mask and five comments were on travel history of peoples. On the other hand, on YouTube one comment was the use of onion and one comment was on the water and one comment was on a surgical mask, and zero comment on the travel history of the public. When the researcher analyzed the reactions on Twitter and YouTube the finding was Twitter surgical masks were less discussed as compared to travel history for the public. And YouTube comments surgical masks were much discussed as compared to the use of onion and water but the travel history of the public was zero percent discussed. So, results was shows that surgical mask was much discussed as compared to onion and water, and Travel history was just discussed on Twitter, not on YouTube.

The current examinations likewise add to the writing on thinking and truth insight. While a large part of the conversation around counterfeit news has zeroed in on political belief system and hardliner character

our information is more reliable with ongoing examinations on a falsehood that give both correlational and test proof for a significant job of logical mental style (Pennycook, 2020).

Out of the selected 73 pieces of news, the researchers found that only three false contents had been pinpointed in February, the first month of the sample period where the fake contents had eventually spread since March when 25 fictitious contents had been identified that month.

Unfortunately, Pakistani officials did not actively use social media in crisis days. Because literate people were actively used Twitter for getting and sharing information and mostly the public were used Facebook just to spend time

After finding the fake news, no use of face mask and much-used onion and much-used water it was shared on the official Twitter account when checking the reaction of the Twitter users, peoples did not know about that is real information or misinformation which was shared on official Twitter account by Dr. Zafar Mirza. In this misinformation, peoples just reacted like that good work and excellent and some of the peoples were just aggressive on this statement like onion was good food for fighting coronavirus and did not wear a face mask. When the analysis of fake news sentiments on Twitter 37.5% public just reaction on face mask and 5% people's reaction about travel policy like to closed the border and increased the corona testing skills on airports. When the analysis of this misinformation on other social media tools You Tube 33.3% reaction about the use of onion, use of water and surgical mask and zero percent reaction about travel policy. Finding of this study three themes which were discussed on official Twitter accounts of Dr. Zafar Mirza, use of onion and water and wear face mask but 9.0% sentiments on water and use of onion to fight against coronavirus and 36.5% sentiments on face mask but a finding of this study in all sentiments peoples have disagreed about this misinformation.

Conclusion

This research concludes that at the government level official did not actively use social media in the pandemic situation in Pakistan. They have to use in normal ways not to update their followers in which Facebook and Twitter but when they check others political issues they have actively used social media accounts but in the pandemic situation they have to less use of social media platforms. Fake news about COVID-19 is spread over Facebook, Twitter, and other social media platforms. Pakistan is also facing the issue of fake news about COVID-19.

In the crisis at the government, the level was not to create official social media platforms which they have to inform the public that is an authentic way to get information about COVID-19. But unfortunately at the national level government did not take a serious step regarding this public issue. It's a big blander by the official side why they have not updated the public in this crisis and why they have not a serious step and online centers which they have to educate the social media users about education, health, economy, and COVID-19 in Pakistan and all over the world.

Analysis shows that if respective represented effectively and much used of official Facebook pages and Twitter accounts in the first wave of coronavirus in which daily bases post and tweet related to coronavirus or others social issues, then it's a chance to create fake news otherwise little bit chance to post or tweets fake news on official pages and Twitter accounts. After the results to analysis, the official Facebook pages, and Twitter accounts health sector is major themes which to projected the news about coronavirus on social media, especially Twitter.

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