Social Media Fake News in India

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Abstract

This study analyzes 419 fake news items published in India, a fake-news-prone country, to identify the major themes, content types, and sources of social media fake news. The results show that fake news shared on social media has six major themes: health, religion, politics, crime, entertainment, and miscellaneous; eight types of content: text, photo, audio, and video, text & photo, text & video, photo & video, and text & photo & video; and two main sources: online sources and the mainstream media. Health-related fake news is more common only during a health crisis, whereas fake news related to religion and politics seems more prevalent, emerging from online media. Text & photo and text & video have three-fourths of the total share of fake news, and most of them are from online media: online media is the main source of fake news on social media as well. On the other hand, mainstream media mostly produces political fake news. This study, presenting some novel findings that may help researchers to understand and policymakers to control fake news on social media, invites more academic investigations of religious and political fake news in India. Two important limitations of this study are related to the data source and data collection period, which may have an impact on the results.

Keywords: fake news; social media; India; disinformation; misinformation; fact-check

This study aims to explore the themes, content types, and sources of fake news shared on social media in India. Although fake news is an old phenomenon, it has become a buzzword after the 2016 US election (Quandt et al., 2019). Scholars define the term in many ways. Some definitions echo rumor, while some echo misinformation and disinformation (Duffy et al., 2019; Tandoc et al., 2018, 2020; Meel & Vishwakarma, 2019; Muigai, 2019). Rumor is unverified information that emerges in ambiguous and threatening situations and when information is scarce and people feel a psychological need for understanding or security (Difonzo & Bordia, 2006; Watson & Hill, 2006). Misinformation is the unintentional false or misleading information that mainly emerges from knowledge-gaps. Disinformation is false or misleading information constructed deliberately to mislead people (Derczynski et al., 2015). Fake news can be both false (Allcott & Gentzkow, 2017) or true information (Jaster & Lanius, 2018), and it misleads people intentionally or unintentionally.

Due to such conceptual proximity, separating fake news from rumor, misinformation, and disinformation is often difficult. With the growing popularity of social media worldwide, the online fake news problem attracts many researchers. However, fake news literature focuses on the Western countries more than others: around 200 Scopus-indexed papers deal with a single issue, i.e., fake news in the 2016 US election, whereas South Asia did not get proper attention from scholars to date. For example, online fake news in Bangladesh has been disturbing social peace and interreligious congruence chiefly since 2012 after the Ramu Violence (Al-Zaman, 2019, 2020; Al-Zaman et al., 2020). In Myanmar, Buddhists nationalists are weaponizing social media to produce and spread fake news against the Rohingya minorities (The Economist, 2020). In recent years, India has become a land of online fake news as well. However, these phenomena are yet to be acknowledged in academia with the proper importance. To bridge this existing gap, the present study focuses on the online fake news problem in India. Although a few studies have already been published dealing with Indian fake news, they have at least two limitations: they hardly explain the comprehensive themes, content types, and sources of social media fake news (Banaji et al., 2019; Sutaria, 2020), and they mainly deal with the religious and political aspects of fake news (Arun, 2015; Banaji et al., 2019; Farooq, 2018).

India now has approximately 376.1 million active social media users (Keelery, 2020b), and the country's four most popular social media platforms are Facebook, Twitter, WhatsApp, and YouTube. With the increasing social media users, online fake news is becoming widespread: WhatsApp, according to the previous studies, is its main source (Arun, 2015; Banaji et al., 2019). Previous literature hints that online fake news in India serves mainly two purposes: political and religious, utilized by two groups: the Bhartiya Janata Party's (BJP) digital army and digital archiving as historymaking to support the Hindu-nationalist government (Chaturvedi, 2016; Udupa, 2017), and gau-rakshaks ("cow protectors" or "cow vigilantes") to harass or lynch the minorities, mainly the Muslims (Mukherjee, 2020). For example, the Modi government benefitted from the digital army's electoral disinformation campaigns in 2015 and 2019 (Rodrigues, 2020), and vigilante mobs lynched hundreds of Muslims from 2009 to 2019 based on WhatsApp-based religious fake news (Arun, 2015; Banaji et al., 2019). Four reasons may be helpful to define India's current fake news problem: (a) higher social media penetration (Keelery, 2020b); (b) a growing number of Internetilliterate people using social media (Raj & Goswami, 2020); (c) the existing law that makes tracing fake news producers difficult (Faroog, 2018); (d) the rise of Hindutva (an ideology of Hindu-domination) and religious nationalism (Al-Zaman, 2019).

Against this backdrop, understanding major fake news themes is imperative to learn about Indian netizens' issues of interest. Also, fake news content may hint at what forms fake news take and how popular they are among netizens. Lastly, source identification of social media fake news is mainly important for policymakers to determine which source should be dealt with more seriously to control the fake news problem. The following three sections discuss the variables of this research in light of previous literature.

Literature Review

Definition of Fake News

Previous literature offers at least eight popular typologies of fake news from different aspects. Analyzing 34 fake news studies, Tandoc et al. (2018) identified six types of fake news: news satire, news parody, fabrication, manipulation, propaganda,

and advertising. Each of them can be defined in terms of facticity and intention: while some of them have a higher level of facticity and deceptive intentions, some have a lower level of facticity and deceptive intentions. Three similar typologies are recognized by communication scholars. According to Wardle (2017), fake news has seven types: satire or parody, misleading content, imposter content, fabricated content, false connection, false context, and manipulated content. Studying the 2016 US election, Allcott and Gentzkow (2017, p. 214) identified seven types of fake news: "unintentional reporting mistakes, fake news that does not originate from a particular news article, conspiracy theories, a satire that is unlikely to be misconstrued as factual false statements by politicians, and reports that are slanted or misleading but not outright false." Nielsen and Graves (2017) explored five types of fake news: satire, poor journalism, propaganda, advertising, and false news. These typologies have two major limitations: they are very proximate, sharing some common types (e.g., satire and false news) to define fake news, and they are more concerned about the claims rather than the themes of fake news. Two more studies proposed fake news typologies, making connections between fake news and rumor, misinformation, and disinformation. According to Haque (2019), fake news has four types: disinformation, misinformation, hoax, and rumor. Ouedraogo (2020) divided social media fake news into six types: maliciously false news, neutral false news, satire news, disinformation, misinformation, and rumor. Like the previous four studies, these two studies are also less concerned about the thematic issues of fake news. A thematic analysis by Khan et al. (2019) suggests that fake news has five types of content: clickbait, satire and parody, propaganda, sloppy news, and biased or partisan news. This typology echoes the fake news typology of Tandoc et al. (2018) and defines fake news from a more journalistic perspective.

Themes of Fake News

A few studies presented thematic typologies of fake news that are relevant to the present research. Based on the critical-historical lens of media ecology analysis, Higdon (2020) explored four prominent themes of fake news: nationalism, hate, celebrity gossip, and fear. Although this study attempted to provide better insights regarding the themes, it failed to acknowledge the complexity of fake news, without

incorporating more essential themes like politics, crime, and miscellaneous. In a separate study, Wu and Liu (2018) identified four themes of social media fake news: business, science and technology, entertainment, and medical. This study has four limitations: it limits its extent within a more technical genre, i.e., computer science; its categories are limited in number; it does not offer details about the categories; it does not focus on the Indian context. Banaji et al. (2019) proposed five themes based on WhatsApp fake news in India: overwhelming amount of content, nationalism, religion, gender, and miscellaneous. This typology failed to perceive the prominent issues of public interest, contains a few overlapping subthemes, and emphasizes negative fake news more. Overall, the previous studies have at least one of the three following limitations: (a) their findings are not based on the Indian context; (b) their findings are not related to social media; (c) their findings are not inclusive enough to consider diverse fake news themes.

RQ1: What are the main themes of social media fake news?

Fake News Contents

Social media fake news has become a topic of interest for more researchers from various disciplines, but a comprehensive typology of fake news content is still absent. An analysis of fake news content types would help us to understand how true news is different from fake news. Although some studies attempt to provide content types, they end up having one or more limitations. I found a few studies more relevant to the present research. For example, Sukhodolov and Bychkova (2017) mentioned the digital communication content responsible for fake news, emphasizing the role of social networks in fake news production and distribution. Fake news can be found in fake texts, photos, video, and audio files (Sukhodolov & Bychkova, 2017). Although Guacho et al. (2018) discussed about three fake news contents: text, image, and video, their study focused only on the textual analysis of fake news articles. Similarly, Wheaton (2018) addressed text, image, and video as the major fake news contents, but focused only on textual analysis. A few more studies analyzed different types of fake news contents, such as text (e.g., Guacho et al., 2018; Wheaton, 2018), image (e.g., Carlson, 2009), video (e.g., Mezaris et al., 2019), text and image (e.g., Zhou & Zafarani, 2020). However, Parikh & Atrey (2018) presented the most comprehensive typology

of fake news content by analyzing different news stories. They categorized fake news data into four types: (a) text data from the linguistic aspect (i.e., article, written post, blog); (b) multimedia data indicating multiple forms of media (i.e., image, video, audio, and graphics); (c) hyperlinks that connect different sources, such as a websites, snapshots, sound clips; (d) audio as a standalone category, such as podcasts. This study has a few limitations. First, the types overlap: If audio can be a standalone type, then why not video and image? Second, a hyperlink may not be a major content type of fake news as it depends on the other primary contents. Third, this typology is somewhat affected by redundancy: Multimedia itself includes several media contents. It is important to note that online fake news can take more than one form at a specific time and previous studies did not acknowledge this uniqueness. Moreover, almost no or very few studies focused on social media fake news content types and the Indian context.

Apart from typology, sources are equally important in the study of fake news, although this aspect has received less attention from scholars to date. Kapferer (1992), in his micro-level analysis, discussed eight primary sources of rumor based on their origins: experts' opinions, confidential information, troubling facts, testimony, fantasies, urban legends, misunderstandings, and manipulation. As social media did not exist during that period, this study could not analyze or discuss media sources of social media fake news. In a more relevant study, Jo (2002) categorized the sources of Internet rumors into two main types: the Internet itself and traditional mass media. The Internet as a medium, according to the study, includes different online information sources, such as websites and social media, and traditional media includes television, newspapers, and radio. The study also shows that rumors from online sources increase with time, while rumors from traditional media decrease. In another relevant study, Shin et al. (2018) explored the two main sources of misinformation by analyzing their Twitter dataset: As most of the misinformation on Twitter is from non-traditional media, a few are from traditional media. They defined non-traditional media as websites, social media, and other Internet sources. Similarly, Muigai (2019) found two sources of social media rumors: online media and mainstream media. The study further suggests that most of the social media rumors originate from online media. While previous studies identified sources of fake news, most of them did not take

either social media or the Indian context into account.

RQ3: What are the main media sources of social media fake news?

Methodology

In this study, I analyzed Indian online fake news. I collected the fake news data from Alt News (http://altnews.in), an Indian fact-checking website. It was selected purposefully for three reasons: (a) its wide recognition and credibility; (b) its strategic fact-checking procedures; (c) its structured and clean data. First, Alt News is a wing of the Pravda Media Foundation, a non-profit organization, and run by professional journalists and media specialists. Also, this website is certified by the International Fact-Checking Network (IFCN), a part of the Poynter Institute, analyzing six relevant aspects: organization, nonpartisanship and fairness, transparency of sources, transparency of funding and organization, transparency of methodology, and open and honest correction policy (see Kaur, 2019). It is also listed in the database of The Reporters' Lab at Duke University, managed by Bill Adair and Mark Stencel. Bill Adair is also the founder of PolitiFact (http://politifact.com), a Pulitzer-winner nonprofit fact-checking website. Second, the website has three clearly stated editorial policies: (a) no political affiliations; (b) evidence-based fact-checking; (c) a detailed explanation of how a claim is debunked. Also, it details its methodology for the five-step process used to debunk a claim: selection of a claim to debunk, researching the claim, the evaluation of the claim, writing the fact-check, and updating the articles (see Alt News, n.d.). Third, the website is comprehensive with a rich fake news list, including structured data that requires less effort to clean and prepare for the final analysis. Moreover, social media platforms often remove flagged and/or distorted information if it violates the platforms' policies, so that many examples fake news cannot be found by searching the platforms (Mosseri, 2017). Due to various advantages, many researchers are using fact-checking websites as their data sources (see Brennen et al., 2020; US 2020: Another Facebook Disinformation Election?, 2019).

Alt News has been debunking Indian fake news since April 2016. As of April 2020, it had debunked around 2,028 instances of fake news. Every article on this

website debunks a single piece of fake news, including some specific information: the statement/claim of the fake news accompanied by a detailed context, the sources of the information along with links, screenshots, or contents (if available), and a decision explained in detail and backed up by evidence. As per my instructions, two graduate students studied the articles published on this website from November 2019 to April 2020 and collected the relevant data based on the three research questions. The website debunked 419 social media fake news items during this 6-month period, which was the sample for this study. The four fake-news-prone social media platforms are Twitter, Facebook, YouTube, and WhatsApp, which are the most popular platforms in India. However, the frequency of fake news appearing on each source was not identified.

Two students coded the collected data. In this study, codes for RQ1 and RQ2 were newly generated, mostly through inductive coding, while codes for RQ3 were taken from the previous studies with little modification. For RQ1, we used six codes: health, religion, politics, crime, entertainment, and miscellaneous (see Table 1). Note that some fake news items could be included in more than one category, making the categorization difficult. For example, coders had to decide whether the story "Muslim youths refuse corona testing for 'religious reasons'" should be classified as health or religious fake news. The coders resolved such issues based on mutual agreement. For RQ2, we used eight codes: text, photo, audio, video, text & photo, text & video, photo & video, and text & photo & video; the first four codes were borrowed from previous literature (Carlson, 2009; Guacho et al., 2018; Parikh & Atrey, 2018; Sukhodolov & Bychkova, 2017; Wheaton, 2018; Zhou & Zafarani, 2020). For RQ3, we borrowed two codes from previous studies with a little modification: online media and mainstream media (Jo, 2002; Muigai, 2019; Shin et al., 2018). The coders resolved all coding issues based on the mutual agreement and thus, made the codes reliable.

Table 1 *Brief Descriptions of the Themes*

Theme	Definition	Example
Health	Mainly deals with medicine,	"Dead bodies in Mecca shared as
	medical and healthcare facilities,	corona victims,"
	viral infection, doctor-patient	"Medicine will be sprayed in the
	issues, quarantine, and lifestyle.	air to kill coronavirus."
Religion	Includes both religious and	"Trump offers Islamic prayers
	religiopolitical (a combination of	amid corona,"
	religion and politics) news,	"Muslims are being buried alive in
	dealing with spirituality, practices,	India."
	and divinity, religious policy, and	
	communalism.	
Politics	Related to institutional politics,	"Kejriwal admits of having family
	political issues, and political	ties with RSS,"
	figures.	"Rahul Gandhi blames PM Modi."
Crime	Related to killing, violence,	"Woman is murdered in Tahir
	stealing, harassing, and other	Hussain's house,"
	forms of criminal activities.	"Minor girl's death in Madhya
		Pradesh is linked to Delhi riots."
Entertainment	Linked to celebrities and popular	"Salman Khan gifts an apartment
	culture.	to Ranu Mondol,"
		"Korean drama predicted COVID-
		19."
Miscellaneous	Includes the fake news that did	"Tata Group of companies will not
	not fit in the other five categories,	recruit JNU Student,"
	mainly related to military,	"Mysterious apocalyptic planet
	technology, education, and	spotted in the sky."
	economy.	

Note. The definitions are based on the collected fake news data and codes, and the examples provided here are taken from the dataset.

Results

Themes

The results show that fake news on social media has six dominant themes: health, religion, politics, crime, entertainment, and miscellaneous (Table 2). Healthrelated fake news is on the top of the list with a frequency of 114 (27.2%), followed by fake news about religion (n=105; 25.1%) and political fake news (n=102; 24.3%). These three themes make up 76.6% of the fake news stories in this study. Entertainment fake news is on the bottom of the list (n=21; 5%). Interestingly, fake news about religion was second on the list, indicating religion's significant role in fake news. In religious fake news, text & video has the highest share (n=44; 41.9%), followed by text & photo (n=39; 37.1%), whereas audio and video have the lowest shares (both n=1 and 1%) (Table 3). Stories that include text & photo made up the largest share of fake news stories about politics, miscellaneous, health, and entertainment, 39.2% (n=40), 43.8% (n=14), 36.8% (n=42), and 61.9% (n=13) of stories, respectively. In crime-related fake news, text & video has the highest share (*n*=18; 40%). Of the six themes, crime-related fake news has the highest percentage (97.8%) in online media, followed by health (93%) and religious fake news (87.6%), while entertainment fake news is the lowest (66.7%) (Table 4).

Table 2
Themes of Fake News

No.	Themes	Frequency	Percentage	Cumulative Percentage
1	Health	114	27.2	27.2
2	Religion	105	25.1	52.3
3	Politics	102	24.3	76.6
4	Crime	45	10.7	87.4
5	Miscellaneous	32	7.6	95.0
6	Entertainment	21	5.0	100.0
	Total	419	100.0	

Table 3

Themes and Contents of Fake News

			Contents								
		7	Audio	Photo	Photo & Video	Text	Text & Photo	Text & Video	Text & photo & video	to Video	Total
Themes	Themes Religion	Count	1	4	2	11	39	44	3	1	105
		% within Themes 1.0%	1.0%	3.8%	1.9%	10.5%	37.1%	41.9%	2.9%	1.0%	100.0%
		% within Contents 14.3%	14.3%	21.1%	100.0%	14.7%	23.6%	34.9%	23.1%	8.3%	25.1%
	Politics	Count	2	9	0	19	40	21	8	9	102
		% within Themes 2.0%	2.0%	2.9%	%0.0	18.6%	39.2%	20.6%	7.8%	2.9%	100.0%
		% within Contents 28.6%	28.6%	31.6%	%0.0	25.3%	24.2%	16.7%	61.5%	20.0%	24.3%
	Miscellaneous	Count (0	3	0	7	14	22	₩	2	32
		% within Themes 0.0%	%0.0	9.4%	%0.0	21.9%	43.8%	15.6%	3.1%	6.3%	100.0%
		% within Contents 0.0%	%0.0	15.8%	%0.0	9.3%	8.5%	4.0%	7.7%	16.7%	7.6%
	Health	Count	4	4	0	24	42	36	₩	3	114
		% within Themes 3.5%	3.5%	3.5%	%0.0	21.1%	36.8%	31.6%	%6.0	2.6%	100.0%
		% within Contents 57.1%	57.1%	21.1%	%0.0	32.0%	25.5%	28.6%	7.7%	25.0%	27.2%
	Entertainment Count	Count	0	0	0	9	13	2	0	0	21
		% within Themes 0.0%	%0.0	%0.0	%0.0	28.6%	61.9%	9.5%	%0.0	%0.0	100.0%
		% within Contents 0.0%	%0.0	%0.0	%0.0	8.0%	7.9%	1.6%	%0.0	%0.0	2.0%
	Crime	Count (0	2	0	8	17	18	0	0	45
		% within Themes 0.0%	%0.0	4.4%	%0.0	17.8%	37.8%	40.0%	%0.0	%0:0	100.0%
		% within Contents 0.0%	%0.0	10.5%	%0.0	10.7%	10.3%	14.3%	%0.0	%0.0	10.7%
Total		Count	7	19	2	75	165	126	13	12	419
		% within Themes 1.7%	1.7%	4.5%	0.5%	17.9%	39.4%	30.1%	3.1%	2.9%	100.0%
		% within Contents 100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 4

Sources and Themes of Fake News

				Themes				
		Crime En	Crime Entertainment	Health M	Health Miscellaneous	Political	Religious	Total
Source Online media	Count	44	14	106	27	83	92	366
	% within Sources	12.0%	3.8%	29.0%	7.4%	22.7%	25.1%	100.0%
	% within Themes	%8'.26	%2'99	93.0%	84.4%	81.4%	87.6%	87.4%
Mainstream media Count	dia Count	1	7	8	Ω	19	13	53
	% within Sources	1.9%	13.2%	15.1%	9.4%	35.8%	24.5%	100.0%
	% within Themes	2.2%	33.3%	7.0%	15.6%	18.6%	12.4%	12.6%
Total	Count	45	21	114	32	102	105	419
	% within Sources	10.7%	2.0%	27.2%	7.6%	24.3%	25.1%	100.0%
	% within Themes	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Contents

Fake news in social media can take eight forms: text, photo, audio, video, text & photo, text & video, photo & video, and text & photo & video (Table 5). While the first four are the primary content, the other four are combinations of one or more primary content. These combination categories are needed because a single piece of fake news can be found in two or more forms at a specific time. For example, "Muslim youths refuse corona testing for 'religious reasons'" was found in text, photo, and video: therefore, it should be a combination of the primary content to indicate its various forms. In this typology, text & photo appears more often than the others with 165 of the stories analyzed (39.4%), followed by text & video (n=126; 30.1%). These two categories make up 69.5% of the total sample. Notice that the gaps between both the second and the third content types and the third and fourth content types are very large. Text is in the third position with 75 stories (17.9%), followed by photo (n=19; 4.5%). Photo & video is at the bottom of this list with only 2 (0.5%) stories. Audio (57.1%), text (32%), and text & photo (25.5%) have their highest percentages in health category; photo & video (100%) and text & video (34.9%) have their highest percentages in religion category; and text & photo & video (61.5%), video (50%), and photo (31.6%) have their highest percentages in the politics category (Table 3). It is observable that no content types have their highest percentages in entertainment, crime, and miscellaneous categories. Audio (100%) and photo & audio (100%) appeared only in online media (Table 6). The six other content types have also their highest shares in online media rather than mainstream media: text & video (94.4%) is the highest of them, followed by text & photo & video (92.3%). Of the eight content types, text (17.3%) has the highest percentage in mainstream media, followed by video (16.7%) and text & photo (16.4%).

Table 5

Content Types of Fake News

No.	Content types	Frequency	Percentage	Cumulative Percentage
1	Text & Photo	165	39.4	39.4
2	Text & Video	126	30.1	69.5
3	Text	75	17.9	87.4
4	Photo	19	4.5	91.9
5	Text & photo & video	13	3.1	95.0
6	Video	12	2.9	97.9
7	Audio	7	1.7	99.5
8	Photo & Video	2	.5	100.0
	Total	419	100.0	

Table 6

Contents and Sources of Fake News

			Source	S	
			Mainstream media	Online media	Total
Content	s Video	Count	2	10	12
		% within Contents	16.7%	83.3%	100.0%
		% within Sources	3.8%	2.7%	2.9%
	Text & photo & video	Count	1	12	13
		% within Contents	7.7%	92.3%	100.0%
		% within Sources	1.9%	3.3%	3.1%
	Text & Video	Count	7	119	126
		% within Contents	5.6%	94.4%	100.0%
		% within Sources	13.2%	32.5%	30.1%
	Text & Photo	Count	27	138	165
		% within Contents	16.4%	83.6%	100.0%
		% within Sources	50.9%	37.7%	39.4%
	Text	Count	13	62	75
		% within Contents	17.3%	82.7%	100.0%
		% within Sources	24.5%	16.9%	17.9%
	Photo & Video	Count	0	2	2
		% within Contents	0.0%	100.0%	100.0%
		% within Sources	0.0%	0.5%	0.5%
	Photo	Count	3	16	19
		% within Contents	15.8%	84.2%	100.0%
		% within Sources	5.7%	4.4%	4.5%
	Audio	Count	0	7	7
		% within Contents	0.0%	100.0%	100.0%
		% within Sources	0.0%	1.9%	1.7%
Total		Count	53	366	419
		% within Contents	12.6%	· -	100.0%
		% within Sources	100.0%	100.0%	100.0%

Sources

Two main sources of social media fake news are online media and mainstream media. Mainstream media mainly includes television channels, newspapers, and radio stations. They are mostly national media outlets. In contrast, online media includes online versions of mainstream television channels and newspapers, online news portals, blogs, various websites, and social media platforms. Of the two, online media (n=366; 87.4%) produces a larger share of fake news than mainstream media (n=53; 12.6%) (Table 7). Of online media, four social media platforms: Twitter, Facebook, YouTube, and WhatsApp

are responsible for all fake news. In online media, health-related fake news (n=106; 29%) is on the top of the list, followed by religious fake news (n=92; 25.1%), whereas entertainment-related fake news (n=14; 3.8%) remains on the bottom (Table 4). In the mainstream media, political fake news (n=19; 35.8%) is the highest, while crime-related fake news (n=1; 1.9%) remains the lowest. If we take fake news contents into account, Table 6 shows that text & photo (n=138; 37.7%) is the dominant content in online media, followed by text & video (n=2; 0.5%) is on the bottom of the list. Like online media, text & photo (n=27; 50.9%) is also the most popular content in mainstream media, followed by text (n=13; 24.5%) with a huge gap in between.

Table 7
Sources of Fake News

No.	Sources	Frequency	Percentage	Cumulative Percentage
1	Online media	366	87.4	87.4
2	Mainstream media	53	12.6	100.0
	Total	419	100.0	

Discussion and Conclusion

Main Objectives

This study aimed to analyze Indian social media fake news. The specific focuses of this research were to identify the main themes, content types, and sources of fake news. An analysis of 419 social media fake news collected from an Indian fact-checking website produced some novel findings.

Key Findings

This study has three key findings. First, fake news has the six following themes, organized according to their prominence: health, religion, politics, crime, entertainment, and miscellaneous. Why health, religion, and political fake news have higher frequencies may be explained with a few specific reasons. The data collection period for this research was November 2019 to April 2020, and the first COVID-19 case in India was identified on January 31, 2020. As a result, most of the health fake news (n=110; 96.49%) in this sample was directly linked to the pandemic. The Indian healthcare system is poor compared to developed countries like the United States (US) and European nations. For example, in a report published by the World Health Organization (WHO) in 2000, India secured 112th position among 191 countries in terms of quality healthcare services. In 2018, the Healthcare Access and Quality (HAQ) Index published another report where India was

positioned 145th among 195 countries. Therefore, it is predictable that the pandemic as a crisis would bring health-related ambiguity and uncertainty in India, which is conducive to fake news production as well (Difonzo & Bordia, 2006; Watson & Hill, 2006).

On the other hand, several reasons can explain the contemporary growth of religious and political fake news in India: the rise of Hindutva and Hindu nationalism inspired and/or patronized by the BJP-government is perhaps the most prominent one (Al-Zaman, 2019; Arun, 2015; Banaji et al., 2019; Mukherjee, 2020; Udupa, 2016, 2017). Recently, the pandemic brings a new opportunity for the rumor-spreaders to produce and disseminate ample religious and political fake news along with health-related fake news in social media (Menon, 2020; Sutaria, 2020). The contribution of BJP's digital army in political fake news production cannot be underestimated as well (Chaturvedi, 2016). Social media is used widely in India to mobilize political activists for assembly and/or demonstration, and general public and vigilante groups for religious vigilantism and/or mob lynching (Faroog, 2018). Religion and politics often intertwine, creating a new type of fake news: religiopolitical, and WhatsApp is mostly used for such fake news propagation because of its instant messaging capacity, easier usability, and wide reach (Bali & Desai, 2019). For example, WhatsApp fake news triggered the Muzaffarnagar Riot in Uttar Pradesh in 2017, eight months before the federal election, and had both political and religious purposes.

Second, Indian fake news has eight major content types: text, photo, audio, video, text & photo, text & video, photo & video, and text & photo & video. Text & photo and text & video are the most-popular fake news contents. This may have been caused by the changes in users' content consumption patterns during the pandemic: consumption of mostly visual contents in India increased by 61-71%, and social media use increased by 75% (Keelery, 2020a). Previous studies failed to explain the major content types of fake news in India and their consumption patterns (Guacho et al., 2018; Parikh & Atrey, 2018; Sukhodolov & Bychkova, 2017; Wheaton, 2018). The pandemic caused a surge in the sale of fake medicine and created an artificial crisis for healthcare equipment, such as masks and sanitizers (ToI, 2020), which might have been driven by economic benefits (Tandoc et al., 2018). Fake prescriptions are mainly text- and photo-based. Also, fake, doctored, and old videos and photo are mainly used in creating religious and political misinformation in India. For these reasons, visual contents are responsible for many of India's health, religious, and political fake news. Previous studies also stated that Indian fake news is mostly WhatsApp-based, which is conducive for visual contents (Arun, 2015; Bali & Desai, 2019; Banaji et al., 2019; Faroog, 2018; Mukherjee, 2020). More empirical research should explore the underlying causes of particular content consumption for the particular themes of fake news.

Third, fake news has two main sources: online media and mainstream media. Online media produces almost seven times more fake news compared to mainstream media: previous studies suggested similar results (Muigai, 2019; Shin et al., 2018).

However, Jo's (2002) finding seems more conclusive which suggested that online fake news increases with time, unlike fake news from mainstream media, which seems true for India as well. Why online media produces more fake news than mainstream media may be explained by at least two reasons. One, from 2014 to 2019, the Internet users in India increased by 65%, surpassing the appeal of mainstream media (Ninan, 2019). In addition, thanks to social media's political benefits, the BJP government promotes Internet-based alternative media that helps to reduce the effects of mainstream media to some extent. Social media has a wider reach: 19% of Dalits, the most underprivileged community in India, have access to water, but 65% of them have access to the Internet (Farooq, 2018). It is easy to manipulate content and mobilize people: digital archiving is used in history-making in favor of BJP's Hindu nationalism and other political agendas (Udupa, 2016). Although it has been said that social media has democratized India (Faroog, 2018), it makes unregulated information production and dissemination commonplace (Bali & Desai, 2019). Also, a large share of the users lack digital literacy, which makes them more susceptible to fake news (Raj & Goswami, 2020). These factors cumulatively expedite online fake news production that outshines mainstream media as well.

Mainstream media produces more text- and photo-based fake news, which is a feature of print media. It produces more political fake news as well. Therefore, it can be inferred that print media (e.g., newspapers) produces more political fake news than other types of fake news. Unlike mainstream media, online media produces more health and religious fake news. The surge in health-related online misinformation is a global problem during the pandemic (Islam et al., 2020), and it is intense in India thanks to the higher Internet penetration rate and a lack of users' Internet literacy. Consequently, health misinformation is creating panic and claiming lives (Kadam & Atre, 2020; Raj & Goswami, 2020). No audio content in mainstream media suggests that radio is *not* likely to produce fake news. Of online media, Facebook, Twitter, YouTube, and WhatsApp produce many instances of fake news, although this study does not provide their frequencies, which is another limitation of this research. This study is also unable to show the timeline of the different fake news to understand their fluctuations over the selected period and to predict their future trends.

Strengths and Limitations

This study has a few limitations. First, it analyzed fake news data collected from a fact-checking website: such websites usually have limited resources to debunk popular fake news stories (Brennen et al., 2020). Therefore, the results may not be representative of all fake news. Second, previous studies were insufficient to guide the analysis of the results, so some explanations may sound like assumptions. In this regard, further studies are required to understand the multidimensional characteristics of fake news in India. Third, this study considered a smaller time span for fake news data compared to India's long-standing online fake news problem. Further, India's online participants'

demographic characteristics and information consumption patterns are different, as well as unique. These issues may create a generalization problem of the findings.

Apart from these limitations, the study bridges a few knowledge-gaps and presents some novel findings that may help provide a better understanding of social media fake news in India. First, this study utilizes a fact-checking website as the data source for content analysis: this methodology is uncommon and can guide future research in this area. Second, although previous studies tried to emphasize political and religious fake news in India, this study empirically shows their frequencies, content types, and sources, substantiating that these topics should be prioritized in academic scholarship, as well as in policymaking. Third, some COVID-19-related insights have also been identified, which could be important to understand the pandemic-related fake news. Fourth, cross tables between the variables unravel some features, such as prevalent content types according to themes and their sources, which sources produce what type of contents, and so on: these would help to extend the academic understanding of fake news. It would also help decision-makers to determine which themes, content types, and sources should be dealt with and what measures to control the fake news problem should be utilized. As previously stated, this study has limitations, including the data collection period and timelines of the variables; therefore, further studies should overcome these limitations. Moreover, future studies should also provide platform-based frequencies to make the knowledge more in-depth. Lastly, the novel findings of this research might be helpful to explain social media fake news of India and other mostly-homogenous South Asian countries (e.g., Bangladesh; Al-Zaman, 2019) as well.

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Date of Submission: 2020-09-12

Date of Acceptance: 2020-12-10