

User perceptions of fake news sharing behavior on social media through social networking sites

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Abstract

In the age of information technology, online social networks are part of our daily lives and are the main source of obtaining and transmitting information, which can be a blessing or a curse. Although social networks facilitate access to news and information, one issue remains of serious significance, namely the phenomenon of fake news. The short time of spreading fake news in the online social environment is the main cause for concern, and users' attitudes towards fake news can facilitate or reduce its spread. Therefore, the main objective of the current study is to perform an overall analysis of users' perceptions on the behavior and attitudes toward distributing fake news through social networks. To ensure a comprehensive interpretation of the research topic, we analyzed both the reasons behind the behavior of distributing fake news and the active or passive actions that users apply in relation to them. As verifying the authenticity of the source is an essential component of the preventive behavior of fake information distribution, an analysis of the action was performed to verify the credibility of the sources among users. Therefore, the detailed and joint analysis of the above variables gives a note of originality to this study. In addition, the results of the study have significant practical implications for social platforms and are intended to provide a better understanding of how online social network users perceive fake information and interact with it. More specifically, they can be used in the development of predictive models that have the role of automating the identification of fake news in the context of machine learning algorithms and big data.

1. Introduction

The spread of fake news is not a new concept, but the speed with which it can spread through online social networks and the growing effects on members of society have been a major concern for many stakeholders. Fake news is information that looks realistic and has been created to facilitate the spread of misleading information about a particular person, product, or organization that is intended to achieve goals such as profit or loss (Mishra and Samu, 2021). About 65% of the US adult population is addicted to using social networks to keep up with the latest news and information (Meel and Vishwakarma, 2020), and this dependence because of fear of missing out also contributes to the spread of fake news. Thanks to the continuous development of social networking sites (SNS), users can communicate more easily, quickly, and more frequently with their virtual friends, coworkers, family, or others, but they also have the power to raise up or destroy a brand (Pundir *et al.*, 2021), due to the recommendations and opinions they express in the online environment regarding a certain product or service. Any fake news distributed repeatedly on the online social environment can have a negative impact on a brand (Talwar *et al.*, 2019), but it can also have a negative influence on consumers/users, creating confusion and doubts about the topics discussed in the news they read frequently (Domenico *et al.*, 2021).

Thus, brand managers should understand as deeply as possible the way consumers perceive and respond to fake news spread on social networks related to a product or service (Chen and Cheng, 2019). Since the onset of the Coronavirus pandemic, researchers such as (Apuke and Omar, 2021) have pointed out that people with an altruistic attitude may experience a greater tendency to share misinformation

about COVID-19 in the belief that they share useful information that could help others. In the current context, there is a lot of fake news spread in the SNS about political parties, the COVID-19 pandemic, or the war between Russia and Ukraine, which makes the phenomenon of spreading fake news ubiquitous in our attention. At the same time, the probability of spreading fake news to the detriment of true ones is 70% compliant (Miller, 2019), but little is known about the motivation and process behind the action of SNS users to spread fake news and social misinformation. In addition, the lack of an in-depth analysis of the factors that influence the behavior of sharing fake news is an important gap in the literature. At the same time, the behavioral impact, and changes in attitude toward a brand, product, or service that occur as a result of interaction with a multitude of fake information and news have not been previously analyzed.

Recognizing the need to fill a lack of information in the literature, our study focuses on analyzing users' perceptions of fake news, their distribution behavior on social networking sites, and also the reasons and reasoning behind the information sharing action and the effects that these actions have on users. The results of the study make an important contribution both theoretically and through their practical implications on a deeper and clearer understanding of how to spread and reason people who share fake information online.

2. Literature review

Online social networks facilitate quick access to information and news (Mican *et al.*, 2020), providing a much simpler way to pass it on to other users verbally, in writing, and visually (Rampersad and Althiyabi, 2019) and with a strong impact on their well-being and support for peers, transforming the users into digital socialligators (Sitar-Taut *et al.*, 2021). The study (Talwar *et al.*, 2019) show a dark side of the SNS that grows rapidly to the detriment of the well-being of communities and individuals, but also that online confidence, self-disclosure, fear of losing out, and fatigue after using SNSs are related to the intentional distribution of fake news, while trust in SNS has a negative association with news authentication before sharing. Thus, the phenomenon of spreading fake news occurs whenever a new technological innovation becomes more and more popular (Agarwal and Alsaeedi, 2021). User interactions on social networks give rise to a multitude of constantly distributed information, many of which turn out to be fake, sometimes created intentionally and with a predefined or unintentional motive, respectively, accidentally (Meel and Vishwakarma, 2020). The category of fake news includes news satire, parody, fabrication, manipulation, propaganda, and advertising (Chen and Cheng, 2019), and all these forms of fake news are classified into two categories, namely the facticity that refers to the degree to which the information is based on facts and the intention to mislead the reader. To these categories is added the spread of fake misinformation, which refers to information based on real events but used to harm an entity that may be a social group, an organization, a person, or even a country (Balakrishnan *et al.*, 2021).

Dividing fake news into categories such as misinformation, i.e. intentional sharing of fake news, and misinformation, i.e. accidental or unintentional sharing of fake information, is very important (Pundir *et al.*, 2021) because for online users, identifying the credibility of social media news is a challenge. As for misinformation, according to (Agarwal and Alsaeedi, 2021), it contains uncertain, vague, ambiguous, or not entirely accurately described information, intentionally or mistakenly distributed, classified as clickbait, propaganda, satire, careless journalism, misleading headings, and biased or slanted news. At the same time, the rapid and advanced circulation of fake news on online social networks has become a worrying and serious problem in the age of technology that is developing more and more every day and where anonymity, user-generated content, and geography factors can encourage the distribution of fake news (Talwar *et al.*, 2020). In principle, an individual's behavior can be passive or active and consists of any observable and quantifiable action he performs in a given environment, which is part of a previous chain of events that explains the cause of action and its consequence (Miller, 2019). News credibility is also a factor with a significant impact on the behavior and actions of consumers in the online social environment, being the bridge between news credibility and behavioral intentions (Sharif *et al.*, 2021).

The reason behind the misinformation is uncertain and not analyzed in detail, as there may be several motivational factors, such as lack of time to verify the credibility of the source or the user's desire to raise awareness among those with whom he/she shares information. News sources such as the print media,

radio, television, or SNS are the basis for raising awareness of local and global events, and a key factor in sharing information that can lead to misinformation if the information is fake is the nature of the information itself (Nanath *et al.*, 2022). However, the abundance of unfiltered information has created problems such as confusion, concerns about the security of online social networks, concerns about the privacy of personal data, and trust issues (Miller, 2019). At the same time, SNS can be seen as an amplifier for articles that contain real or fake news and information alike, but are much more likely to be used as platforms for distributing fake news, and about 42% of people who have shared the news in SNSs have stated that they have shared the wrong information at least once (Islam *et al.*, 2020). According to (Pundir *et al.*, 2021), fake news repeatedly distributed in the SNS affects users' trust and perceptions and increases their perceived accuracy, and those who spend more time online are more likely not to check the credibility of a news source or information before sharing it. Concerning active or passive corrective action against the distribution of news or fake information, if users do not perceive this information as harmful and do not feel threatened about it, they are less likely to take action against its dissemination (Tang *et al.*, 2021). Users perceive the information displayed on social networks through the prism of a certain level of intelligence and their degree of awareness of certain facts that are the central subject of the information. Depending on their interests and knowledge of these facts and information, they may pass them on as if they were true, or they may remove them on the basis that they are fake, or they may develop a neutral behavior toward it (Meel and Vishwakarma, 2020).

At the same time, one criterion that can determine the level of trust given to a news source is that users tend to share the same categories of information they see at their friends, colleagues, family, or other people online. Therefore, they attribute a higher level of trust to the source they see the most often. The credibility of the news is, on the other hand, adopted from the concept of the credibility of a message transmitted in the field of journalism and communication and from the human perception of this subject that is defined by the correctness of the content, but each individual has a personal perception of the credibility of information (Sharif *et al.*, 2021). If the perceived level of credibility of a news source decrease, it will affect both the credibility of the journalist and journalism in the field, as well as the confidence that consumers will place in the future to the source. At the same time, if the user's level of trust in a particular source of news is kept low for a longer period, this will gradually increase the individual's level of skepticism about any news or information from that source (Chen and Cheng, 2019). Users can share information or news on their personal SNS profile with the desire to create awareness among the list of friends, acquaintances, colleagues, or family who use the same network. Therefore, according to (Mishra and Samu, 2021), they are less likely to spread negative news with a negative emotional impact because such a post would affect their social image in the online environment, while fake news, which does not have a negative impact, is not perceived as harmful to one's image.

Due to the social nature of the SNS, the actions of acquaintances on a particular post or topic may influence the user's future behavior, as a post that is the focus of a group and is sufficiently viewed and commented on might encourage or discourage a person to express his own opinion about it (Miller, 2019). However, the sharing of fake news can be prevented by developing a specific behavior of SNS users. As a result, they will be aware of the need to authenticate the information before distribution, verify the credibility of the source, and act consciously and objectively on the information distributed by known people.

3. Research methodology and sample

Data needed for the analysis were collected using Google Forms from a number of 482 people, students at the biggest university in Eastern Europe. The students were enrolled in full-time and distance learning. The survey was carried out using a questionnaire to collect quantitative data. Regarding age, the survey used short answer text with data validation for the number. Regarding gender, multiple-choice was used. For all other questions, seven-point Likert scales were used to measure the degree of agreement of the respondents concerning different statements. By the Likert method, the measurement of the degree of agreement or disagreement for each variable was performed numerically, starting from 1, which means a strong disagreement, to 7, which means a strong agreement. The numbers between 1 and 7 have the role of reflecting a different degree, stronger or weaker in agreement or disagreement, depending on the

perception and opinion of each respondent. The questions used to construct the questionnaire were adapted from (Apuke and Omar, 2021; Sui and Zhang, 2021; Talwar *et al.*, 2019, 2020).

Respondents were invited to complete the online survey and share it with other friends on their online social networks. The sample included responses from women in percentage (57%) and men in percentage (43%) aged 19-24 years (73%), 24-29 years (16%), and over 30 years (11%). In conducting this study, the authors used descriptive statistics to analyze the data and describe the basic characteristics of the sample.

4. Data analysis and results

Regarding fake news sharing behavior, as can be seen in Figure 1, the results show that (13.07%) of the respondents state that they distributed the SNS content that initially seemed true to them, but which they later found out was fake, (6.02%) neither agree nor disagree and a majority of (80.91%) disagree that they would have distributed such content. At the same time, a majority disagreement (84.23%) is also found in the case of distributing content on social networks without verifying the facts through reliable sources, but also in the case of unconscious distribution of exaggerated content on social networks (80.50%). On the other hand, a percentage of (9.34%) stated the distribution of content without verifying the credibility of the source, while (6.43%) neither agree nor disagree with it. A percentage of (13.69%) states the distribution in the SNS of exaggerated content that they did not know was exaggerated. The vast majority of respondents (84.44%) disagree with the fact that they shared content on social networks without reading the whole article, and only a percentage of (11.83%) agree to some extent that they shared content on social networks without reading the whole article.

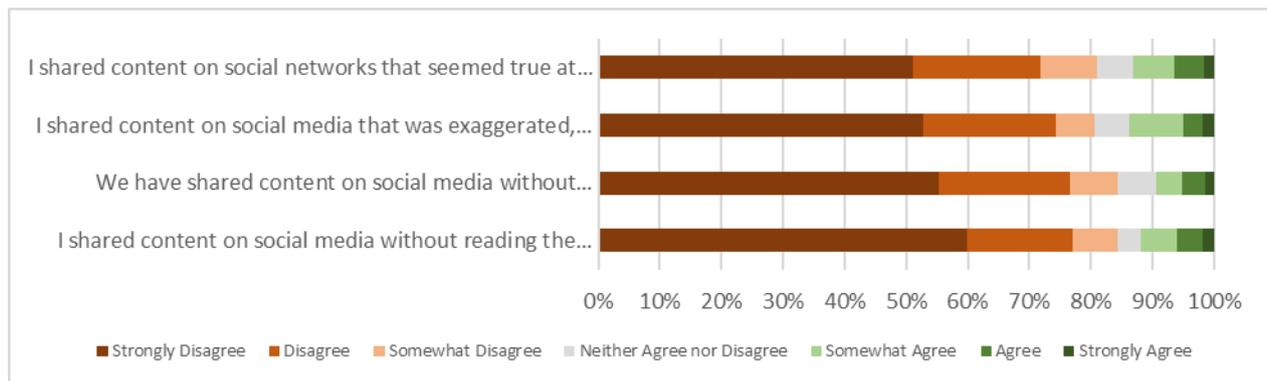


Figure 1. Fake news sharing behavior

Regarding awareness of fake news and authentication of news before sharing, in our study, as shown in Figure 2, the analysis of the responses shows that in terms of respondents' ability to identify fake news and misleading information, a percentage of (74.48%) states that they usually have this ability. However, (9.75%) neither disagree nor agree, while (15.77%) expressed disagreement about it. A percentage of (43.98%) agree that they usually check the authenticity of the messages before distributing them, (16.39%) neither agree nor disagree, and (39.63%) do not agree with the statement. Regarding the request for a third-party opinion on the authenticity of the messages before distributing them, a percentage of (17.63%) agree, while the majority (69.71%) do not. At the same time, a majority, respectively (80.71%) do not consider that they rely on TV news channels to verify the authenticity of messages before distributing them, (14.94%) are impartial about the agreement or disagreement related to this statement, and only (4.36%) agree.

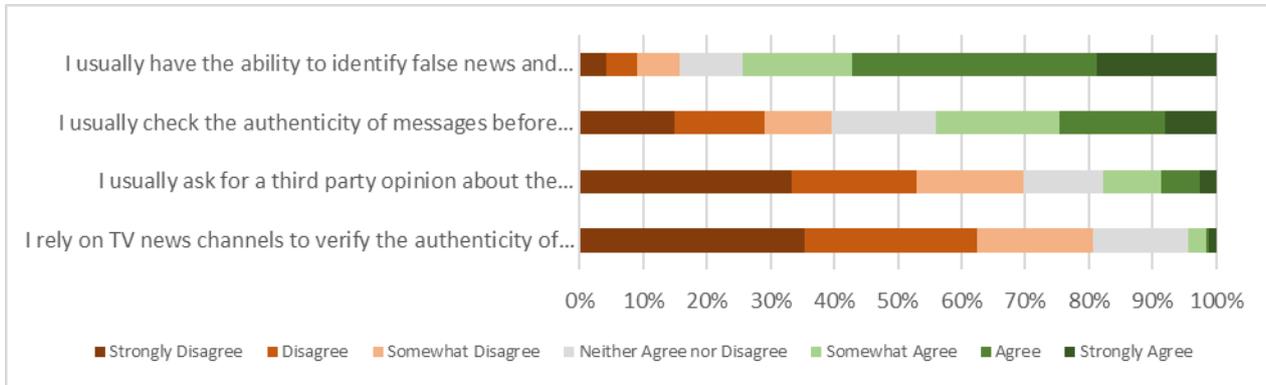


Figure 2. Fake news awareness and authentication of news before sharing

Regarding the analysis of sharing fake news online due to lack of time or to create awareness, as shown in Figure 3, the results show that the majority (92.53%) do not agree that they would sometimes spread fake news because they do not have time to verify their authenticity. Only (3.53%) of the respondents agree with this statement. Similarly, (91.70%) of the respondents do not agree that they sometimes spread fake news because they do not have time to verify the facts through reliable sources and only (4.36%) are strongly opposed to it. Furthermore, (3.94%) agree nor disagree with it. At the same time, (23.65%) agree that they try to raise awareness by distributing news online, although some of them were fake, while (62.24%) firmly opposed and (14.11%) of the respondents neither agree nor disagree with the statement. Regarding the desire to educate their friends online by sharing online news content, even though some of that news was fake, (24.69%) strongly agree, (13.49%) neither agree nor disagree, while the majority of respondents, respectively (61.83%) expressed their disagreement with it.

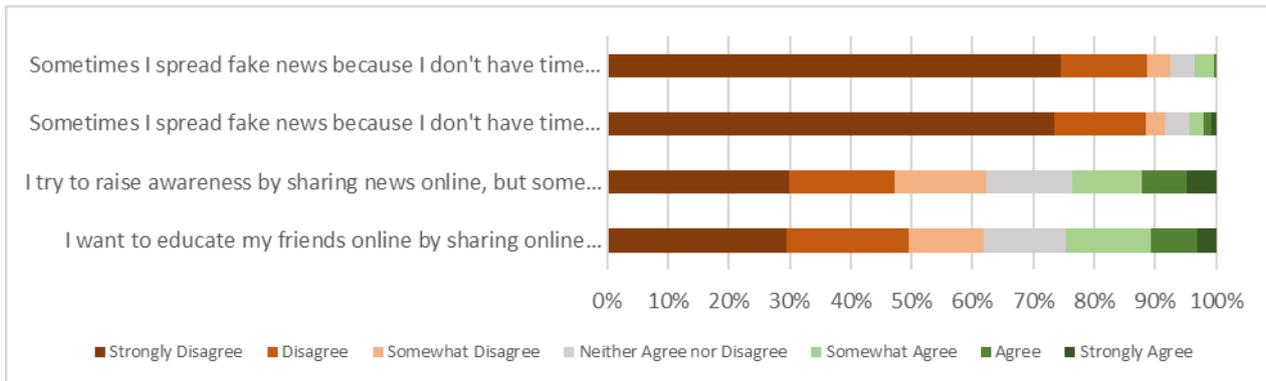


Figure 3. Sharing fake news online due to lack of time or for creating awareness

Regarding active and passive corrective actions against fake news, as can be seen in Figure 4, the results show that (67.01%) disagree with the fact that they usually advise the sender of fake news not to distribute them, a percentage (12.03%) neither agrees nor disagrees, while (20.95%) agrees. Then, almost half (42.32%) of the respondents disagree that they usually try to make people aware of the fake news and the same percentage (42.32%) agree with that, while (15.35%) neither agree nor disagree with this. At the same time, a significant percentage (59.34%) disagree that they usually advise the sender of fake news to always check the authenticity before distributing them, (12.66%) neither agree nor deny this behavior, while (28.01%) agree with it. A percentage of (66.18%) disagree that in some cases they educated the sender of fake news about how to check the news, while (24.69%) agree with it, and (9.13%) neither agree nor disagree. Also, (41.91%) affirm that they announce the sender that he/she sent a fake message to them, and an almost equal percentage, respectively (46.47%) disagree with this. Only (11.62%) are impartial regarding this statement. Almost half (56.64%) of the respondents say they report the account that constantly sends them fake news, while (34.23%) disagree, and the majority of respondents (62.86%)

say they block accounts that send them fake news, (26.56%) disagree with it, and (10.58%) are impartial about this.

Regarding the perceived information quality, source expertise, authority, and credibility analyzed in Figure 5, the results show that the majority (67.43%) of respondents usually share news when they believe that the source of information is reliable, (20.12%) do not agree with this and (12.45%) neither agree nor disagree. A significant percentage (69.92%) shows that respondents usually spread the word when they think the source of the information is secure, while (20.75%) are not concerned about it. On the other hand, (41.70%) disapprove of the fact that they usually share news when they think the author is a recognized authority, while (38.38%) agree with it.

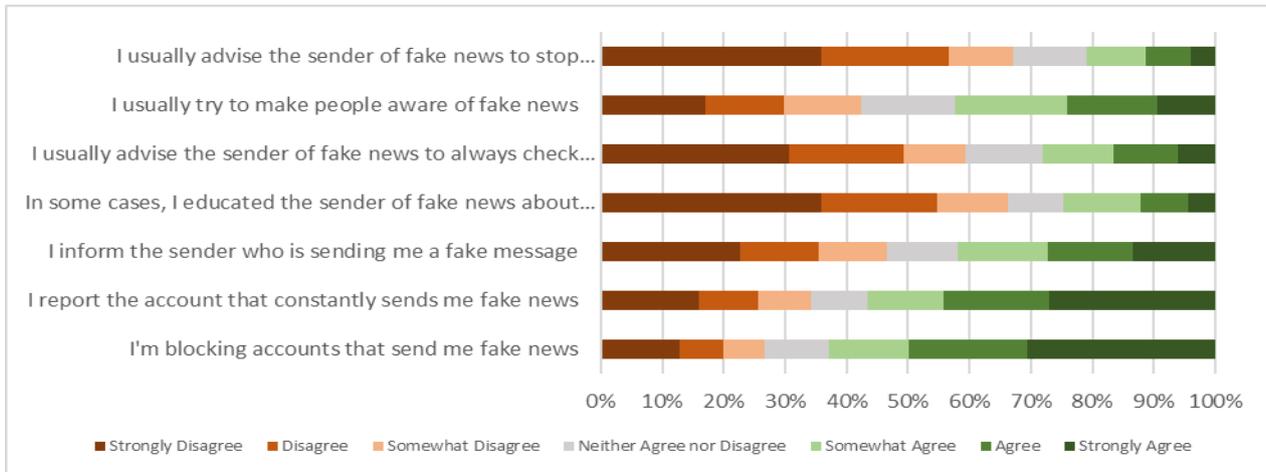


Figure 4. Active and passive corrective actions on fake news

More than half of the respondents (53.94%) do not agree that they usually spread the news when they think the author has a reputation, (16.60%) do not agree or disagree, and (29.46%) agree with it. More than half (54.56%) of the respondents say that they usually share news when they think the author is familiar with the knowledge of the topic and (30.08%) disagree about it. At the same time, most (58.51%) consider that they usually share news when they think the information provider is an expert in this subject, while (26.35%) do not agree. (61.83%) agree that they usually share the news when they think the information makes sense, (25.10%) of them disagree, while (13.07%) neither agree nor disagree. In any case, the majority (66.60%) consider that they usually share news when they think the information is valuable, only (9.96%) are impartial about it, and (23.44%) of them do not agree with it.

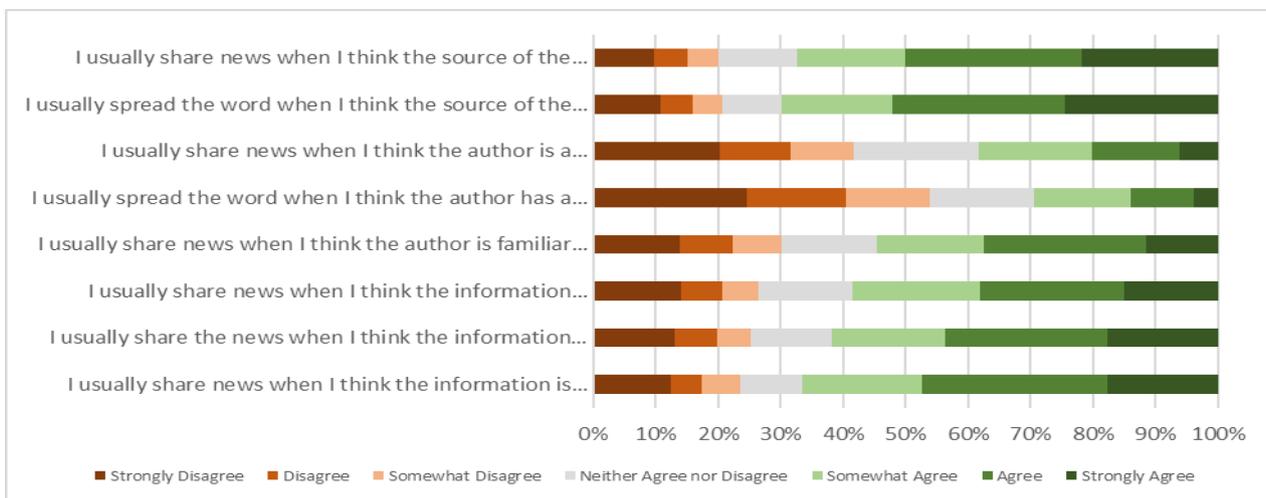


Figure 5. Perceived information quality, source expertise, authority, and credibility

5. Conclusions

Online social networks have become a part of our daily lives, consuming a substantial amount of our time. The very fact that we devote this daily time to the consumption of information that is made available to us through the SNS makes the probability of receiving and encountering fake news, information, or news worryingly high for each of us. Thus, the problem of the phenomenon of fake news is not a negligible one but one to which we must pay special attention, to be able to understand the mechanism of spreading this news and to be able to differentiate it from the true ones. It is, however, a problem that can have multiple causes, but whose "treatment" requires a collective approach and effort, both political and social, as well as technological and human. For these reasons, our study provides an overview of users' perceptions of the behavior of sharing fake news on social networks online by addressing several concepts and factors studied in the literature, but also connections that have not been analyzed previously, such as the behavioral impact of constant interaction with fake news on individuals.

The results show that most of the respondents did not consider that they shared content on social media without reading the entire article, and only a small part agreed that they had not read the entire article before sharing it. Most of the respondents also believe that they did not distribute content without verifying the credibility of the source, while only a small part agree that they distributed exaggerated content without knowing from the beginning that it was exaggerated, as well as that they shared fake information but believed that those are true at some point. Regarding awareness of fake news and its authentication before sharing, most respondents say that they have the ability to identify fake news and misleading information, but a similar percentage, almost half of the total number agree, respectively, disagree that they check the authenticity of messages before sharing them on SNS. This indicates that some respondents consider it important to authenticate the information received before sharing it with others, while the other half do not. At the same time, most of them do not ask a third party for an opinion on the authenticity of messages before they are distributed and do not rely on news TV channels to verify the authenticity of messages before sharing.

Regarding the distribution of fake news due to the lack of time to verify the authenticity of sources or the desire to raise awareness among acquaintances on a particular topic, most respondents do not consider that they sometimes distribute fake news due to the lack of time to verify the authenticity of the source. Approximately the same percentage disagreed with the occasional distribution of fake news due to a lack of time to verify the facts reported by reliable sources. More than a quarter of the respondents agree that they are trying to raise awareness by sharing news in the online social environment, some of which was fake news, and a similar percentage say that they share news out of a desire to educate friends and acquaintances on social media but that some information was fake. Regarding the active or passive corrective actions related to fake news, among the respondents, usually, most of them do not advise the sender of the fake news not to distribute them, and almost half of them try to make the others aware of the fake news, while in the opposing camp, a similar percentage disagree with this. Almost a third of the respondents said they had tried in some cases to educate the sender of fake news about how to verify the authenticity of the news. At the same time, a third of the respondents advise the sender of fake news to always check the authenticity of the information before distributing it, and more than half stated that they report the accounts from which they constantly receive fake news.

Regarding the perceived quality of the information, the expertise of the source, respectively its authority and credibility, the results showed that out of all respondents, most distribute news, usually when they consider their source reliable and when they think the source is reliable. Similarly, almost half distribute news when they consider that its author has a recognized authority, while in terms of the author's reputation, only a third attach importance to it when distributing information. More than half of the respondents share the news because they think that the author is familiar with the topic of the discussion and has the necessary knowledge to approach the topic or because they think that the author is an expert in the field. A high percentage of respondents share the news when they consider it valuable and meaningful information.

The results of the study complete the existing literature, to inform both professionals and marketing managers, who in order to streamline the process of transmitting information to consumers need to know

a behavioral analysis of them and how they react to fake information. The findings of this study come to help online social networking sites, due to providing an overall analysis that includes the factors influencing the behavior of distributing fake information. Through this, we want to encourage the development of users' behavioral skills for objective analysis of the information received through the SNS, as well as the verification of the authenticity and credibility of the information sources that they share.

Limitations and direction for future research

As always, every research, in addition to the contributions it brings, has some limitations. In this case, the data were collected from a small group of people studying at the same faculty, even if there are students enrolled from almost every district in the country. Therefore, the results of the study may not be generalizable globally. Even if the sample size is considered appropriate for current research, it would be preferable to extend the sample to include another category of the nonstudent population. In future studies, we want to use the variables analyzed and the collected data to build a structural model that can predict the distribution of fake news online. In addition, we want to analyze the effects of some moderators and mediators in the model, to provide a more accurate understanding of how the variables studied influence the final variable, i.e., the spread of fake news on social media and online social networks.

References

- Agarwal, N.K. and Alsaeedi, F. (2021), "Creation, dissemination and mitigation: toward a disinformation behavior framework and model", *Aslib Journal of Information Management*, Vol. 73 No. 5, pp. 639-658.
- Apuke, O.D. and Omar, B. (2021), "Fake news and COVID-19: modelling the predictors of fake news sharing among social media users", *Telematics and Informatics*, Pergamon, Vol. 56, p. 101475.
- Balakrishnan, V., Ng, K.S. and Rahim, H.A. (2021), "To share or not to share - The underlying motives of sharing fake news amidst the COVID-19 pandemic in Malaysia", *Technology in Society*, Elsevier Ltd, Vol. 66 No. July, p. 101676.
- Chen, Z.F. and Cheng, Y. (2019), "Consumer response to fake news about brands on social media: the effects of self-efficacy, media trust, and persuasion knowledge on brand trust", *Journal of Product & Brand Management*, Emerald Publishing Limited, Vol. 29 No. 2, pp. 188-198.
- Domenico, G. Di, Sit, J., Ishizaka, A. and Nunan, D. (2021), "Fake news, social media and marketing: A systematic review", *Journal of Business Research*, Elsevier Inc., Vol. 124 No. December 2020, pp. 329-341.
- Islam, A.K.M.N., Laato, S., Talukder, S. and Sutinen, E. (2020), "Misinformation sharing and social media fatigue during COVID-19: An affordance and cognitive load perspective", *Technological Forecasting and Social Change*, North-Holland, Vol. 159, p. 120201.
- Meel, P. and Vishwakarma, K. (2020), "Fake news, rumor, information pollution in social media and web: A contemporary survey of state-of-the-arts, challenges and opportunities", *Expert Systems With Applications*, Vol. 153, p. 112986.
- Mican, D., Sitar-Tăut, D.-A. and Mișuț, I.-S. (2020), "User Behavior on Online Social Networks: Relationships among Social Activities and Satisfaction", *Symmetry 2020*, Vol. 12, Page 1656, Multidisciplinary Digital Publishing Institute, Vol. 12 No. 10, p. 1656.
- Miller, S. (2019), *Examining Engagement Behavior on Social Media Related to Fake News*, ProQuest Dissertations Publishing.
- Mishra, A. and Samu, S. (2021), "Impact of fake news on social image perceptions and consumers' behavioral intentions", *Journal of Consumer Marketing*, Emerald Publishing Limited, Vol. ahead-of-p No. ahead-of-print, available at: <https://doi.org/10.1108/JCM-05-2020-3857>.
- Nanath, K., Kaitheri, S., Malik, S. and Mustafa, S. (2022), "Examination of fake news from a viral perspective: an interplay of emotions, resonance, and sentiments", *Journal of Systems and Information Technology*, available at: <https://doi.org/10.1108/JSIT-11-2020-0257>.
- Pundir, V., Devi, E.B. and Nath, V. (2021), "Arresting fake news sharing on social media: a theory of planned behavior approach", *Management Research Review*, Emerald Publishing Limited, Vol. 44 No. 8, pp. 1108-1138.
- Rampersad, G. and Althiyabi, T. (2019), "Fake news: Acceptance by demographics and culture on social media", <https://doi.org/10.1080/19331681.2019.1686676>, Routledge, Vol. 17 No. 1, pp. 1-11.
- Sharif, A., Awan, T.M. and Paracha, O.S. (2021), "The fake news effect: what does it mean for consumer behavioral intentions towards brands?", *Journal of Information, Communication and Ethics in Society*, available at: <https://doi.org/10.1108/JICES-05-2021-0044>.

-
- Sitar-Taut, D.-A., Mican, D., Frömbling, L. and Sarstedt, M. (2021), "Digital Socialligators? Social Media-Induced Perceived Support During the Transition to the COVID-19 Lockdown", *Social Science Computer Review*, p. 089443932110658.
- Sui, Y. and Zhang, B. (2021), "Determinants of the Perceived Credibility of Rebuttals Concerning Health Misinformation", *International Journal of Environmental Research and Public Health*, Vol. 18 No. 3, p. 1345.
- Talwar, S., Dhir, A., Kaur, P., Zafar, N. and Alrasheedy, M. (2019), "Why do people share fake news? Associations between the dark side of social media use and fake news sharing behavior", *Journal of Retailing and Consumer Services*, Pergamon, Vol. 51, pp. 72-82.
- Talwar, S., Dhir, A., Singh, D., Virk, G.S. and Salo, J. (2020), "Sharing of fake news on social media: Application of the honeycomb framework and the third-person effect hypothesis", *Journal of Retailing and Consumer Services*, Elsevier Ltd, Vol. 57, available at:<https://doi.org/10.1016/J.JRETCONSER.2020.102197>.
- Tang, Z., Miller, A.S., Zhou, Z. and Warkentin, M. (2021), "Does government social media promote users' information security behavior towards COVID-19 scams? Cultivation effects and protective motivations", *Government Information Quarterly*, JAI, Vol. 38 No. 2, p. 101572.
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