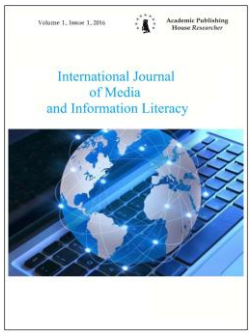
Copyright © 2020 by Academic Publishing House Researcher s.r.o.



Published in the Slovak Republic
International Journal of Media and Information Literacy
Has been issued since 2016.
E-ISSN: 2500-106X
2020, 5(2): 145-152

DOI: 10.13187/ijmil.2020.2.145
www.ejournal46.com

COVID-19 and Infodemics: How to Solve this Problem

Javier Cifuentes-Faura [a, *]

[a] University of Murcia, Spain

Abstract

COVID-19 has not only caused an unprecedented health crisis; it has also caused an infodemic with the spread of false news. The role of the media is crucial in trying to reduce the spread of these hoaxes. Infodemics can cause citizens and political institutions to make bad decisions. Some of the fake news that authorities are most concerned about are those related to remedies to prevent contagion or cure symptoms, as these deceptions can lead to increased contagion or worsening of the disease by coronavirus. The media can play a positive role during the Covid-19 pandemic by promoting effective strategies to help people prevent the spread of the pandemic. They have the ability to convey a sense of unity by reaching large numbers of people, but can also provide grounds for misinformation and discrimination. This article reviews some of the major hoaxes that have spread during the coronavirus crisis, and provides guidelines for citizens to detect the false information that is being disseminated. In addition, useful recommendations are established for content creators and information disseminators, with the aim of promoting effective and truthful communication during this crisis.

Keywords: Covid-19, infodemics, social media, fake news, population, media.

1. Introduction

A new coronavirus, known as Covid-19, emerged in late December 2019 in China, and has spread rapidly worldwide, causing millions of people to be infected and thousands to die. The World Health Organization (WHO) declared this situation a health emergency and classified it as a pandemic at the international level.

However, not only has the disease itself had to be combated, but also a new phenomenon of "infodemics" or epidemics of false information has had to be dealt with.

The term infodemic (Zarocostas, 2020) has been coined to describe the dangers of misinformation phenomena during the management of virus outbreaks (Mendoza et al., 2010, Starbird et al., 2014) as it could even accelerate the process of the epidemic by influencing and fragmenting the response (Kim et al., 2019).

Currently, an enormous amount of unverified information is being disseminated about various aspects of coronavirus disease, methods of control and prevention of the disease, and its consequences through different media and social networks.

The development of social networking technologies is influencing network communications and the way in which human beings interact. Information users are simultaneously information contributors (Popescu, 2015) due to the advance of new technologies in information and communication. News generated in a crisis can be distributed quickly without the intervention of

* Corresponding author
E-mail addresses: javier.cifuentes@um.es (J. Cifuentes-Faura)

journalists, reaching millions of people (Popescu, 2016). The media can stimulate the preparation, knowledge and participation of citizens (Bratu, 2016; Pera, 2015) in the reaction to crises. Engaging the media during the crisis can expand information possibilities and reduce the disorder and inaccuracies that can occur during the crisis (Veil et al, 2011).

In times of emergency, urgent questions arise that require an immediate response. However, there is a tendency to rapidly disseminate unverified claims through the media, rather than disseminating valid scientific and medical facts. In this paper we review some of the fake news that have been spread during the Covid-19 crisis. We also establish a series of guidelines to be followed so that citizens can detect untrue information and the hoaxes spread. Finally, some recommendations are set out for any communicator, journalist and content creator.

2. Materials and methods

In order to carry out this work, a revision of the literature of the last years has been carried out, regarding the media, the information and the way to spread it. Based on this review, the author has drawn up a series of guidelines and recommendations to deal with the fake news that emerged during the COVID-19, to be able to detect them and to guarantee that the information transmitted is truthful.

3. Discussion

The media can play a positive role during the Covid-19 pandemic by promoting effective strategies to help people cope with social alienation, prejudice, discrimination and inequalities. They have the ability to convey a sense of unity by reaching large numbers of people, but can also provide grounds for misinformation and discrimination. People can use the flexibility and pervasiveness of social media technologies to increase public support for the safety measures suggested by health organizations to combat the spread of Covid-19. Different media industries and mass communication channels promote adaptive responses to encourage positive health attitudes and adherence to preventive measures.

Applications such as Facebook, Instagram, Snapchat, Twitter, WhatsApp, and YouTube are great sources of news and information dissemination today, but can sometimes create panic due to the spread of misinformation or false news. Most people who see misinformation about Covid-19 may think that what they are reading is true and some of them may cause panic. Many social network users are inclined to share misinformation and fuel fear of something that is not necessarily true. Thus, hoaxes are spread through social media, such as that the coronavirus was genetically engineered in the bioweapons lab in Wuhan and then released worldwide.

Social networking technologies can help create innovative and faster ways of exchanging information (Popescu, 2016). Citizens can be self-sufficient in information and have access to more information, but this can be a difficult task for government regulation and information synchronization. People may prefer, through better personalization of their media or social networks, to use only information that matches their own opinions (Constantin, 2015), thus acquiring a restricted world view, regardless of the accuracy of the information they obtain. New technologies and social networks make it easier for information to be available and distributed quickly through both established and unofficial channels. Social media compress a new trend of digital communication and content distribution among people and entities (Branicki and Agyei, 2015).

Mobile technologies are a key component for social media to have importance in crisis management. Working with reliable sources through social media can harmonize the ability to reach and gain the trust of a wide audience (Nica, 2015).

With the current Covid-19 health crisis, the circulation of fake news has grown rapidly (Chakravorti, 2020; Taylor, 2020). This type of news not only encourages some racist attitudes and behaviour (Aguilera, 2020) but also puts the health of populations and the capacity of governments to implement prevention measures at great risk. Faced with this situation, the WHO, in addition to declaring the health alert, warned of the generation of an infodemic due to the accumulation of fake news and the difficulty of classifying the true information from the false (World Health Organization, 2020a). To combat this, the WHO has created a section on its website to debunk myths and discredit false information (World Health Organization, 2020b).

Some of the rumors that most concern the authorities are those related to remedies to prevent contagion or cure symptoms, since these hoaxes can lead to increased contagion or worsening of the disease by Covid-19.

The best sources for health information on Covid-19 are the websites of the Ministry of Health of each country and the WHO website. In addition, primary sources are generally better than news articles.

The term fake news has been widely used in recent years (Guess et al., 2019; Lazer et al., 2018). There is talk of fake news, or information manufactured in imitation of media content, but also of "disinformation" and "misinformation". Disinformation is the deliberate creation and dissemination of false information (Bakir, McStay, 2018), while the term misinformation is the practice of those who disseminate it, without being aware of it. The difference between misinformation and disinformation would be intentionality, and both behaviours are very possible in today's society due to new technologies (Rubin, 2019). Social networks and online communication would be mainly responsible for the dissemination of fake news (Blanco-Herrero, Arcila-Calderón, 2019).

False information describes any form of misrepresentation, including rumours, deception, myths, conspiracy theories and other misleading or inaccurate content, whether or not it is shared on purpose (Wang et al., 2019). Fake news and inaccurate information can spread more quickly and have a greater reach than news based on real facts (Vosoughi et al., 2018).

The overabundance of data and knowledge is one of the characteristics of current information. The power no longer lies in having access to information but in managing it. The advent of the Internet and the media has facilitated the dissemination and access to information, opening up the possibilities for users to interact and produce content (Del Vicario et al., 2016). This situation has led to a democratization of the relationship between knowledge and citizens. However, the media have also become the main platforms from which false and misleading information is disseminated (Lazer et al., 2018), as they allow a rapid and large-scale exchange and lack the traditional mechanisms for quality control and reliability (Lewandowsky et al., 2012).

Humans are generally quite inefficient at detecting fake information. This is because fake news often resembles real news, and we believe we recognize a pattern.

Fake news also has an advantage when it comes to sharing information. When we share information online, we examine things very little. We are also more inclined to share bad news, and much of the news related to Covid-19 is not good news.

It is important for people to avoid this false information, as it can affect their actions or decisions (Sharot, Sunstein, 2020). The dissemination of information can strongly influence people's behaviour and alter the effectiveness of measures deployed by governments.

Social networks provide direct access to an unprecedented amount of content and can amplify rumors and spread misinformation (Kulshrestha et al., 2017). Generating misinformation has a profound impact on the construction of social perceptions (Schmidt et al., 2017) and influences policy formulation, political communication, as well as the evolution of public debate (Schmidt et al., 2018; Starnini et al., 2016) especially when the issues are controversial (Del Vicario et al., 2016). In fact, users tend to acquire information by adhering to their world views (Bessi et al., 2015) in order to ignore dissident information (Baronchelli, 2018; Zollo et al., 2017).

The increase in false information is encouraging the denial of scientific evidence and could potentially be a threat to democracy and citizens (Allcott et al., 2019), as the dissemination of this type of content has been shown to encourage cynicism, apathy and extremism (Lazer et al., 2018).

In this way, fake news can lead individuals and institutions to make choices that end up being counterproductive to their own interests or against the needs of society (Merino, 2014).

This negative effect of fake news can be found widely in the health field, especially in the field of vaccination and infectious diseases (Fung et al., 2016; Hotez, 2016; Wang et al., 2019). The spread of fake news can have serious public health consequences (Scheufele, Krause, 2019).

People are more likely to accept information that is consistent with their pre-existing attitudes and beliefs (Del Vicario et al., 2016; Lazer et al.,2018; Lewandowsky et al., 2012). In addition, the more exposed they are to fake news, the more likely they are to accept this type of information (Del Vicario et al., 2016). To try to make the population aware of the majority of these fake news, in the following section we establish a series of guidelines to follow.

4. Results

From the revision of the works that deal with this subject, it has been possible to establish a series of guidelines to detect the fake news, and from here, we have elaborated a series of recommendations for the diffusion of information on COVID-19, that will be very useful, so much for the citizens, as the professionals of the mass media, as for the political institutions.

In order to detect whether a news item is fake, it is important to question different aspects. First of all, one must have a critical spirit in reading the information and be aware that society's immense interest in the Covid-19 gives rise to this dissemination of news. In addition, we must take into account:

- The source: it will be necessary to verify the source of the information and check if it matches the information offered on the official websites. It is important to check if there is any other news source that reports the same thing or if sources are cited in the story and the type of sources involved. If the message you receive does not link you to an official source, it may be a hoax.
- The logo: It is important to check whether the logo of any organization used in the message is identical to that of the official website.
- The formal aspect: you should be suspicious if spelling mistakes have been made or if it contains many exclamation points. If it is difficult to read, spelling mistakes or bad syntax is a good indicator that the news is fake.
- If there is excessive encouragement to share or if the message presses to share it could be fake news.
- The date of publication: some media re-publish old publications or promote old news as current stories. Check the date of publication of the article and whether the timeline it refers to makes sense.

On the other hand, if the news is very recent and not published by any professional newspaper, you should be wary. Similarly, if information comes to us through an audio, we should not give it veracity.

All this infodemics has forced international organizations to act also against the virus of disinformation. The World Health Organization has set up a web page in which it debunks all the myths that have been circulating on social networks since the last few weeks.

There have been several hoaxes that have circulated through the network during the crisis of Covid-19, which have had to be denied because of their rapid spread. Here are some of them:

- Sodium chlorite does not cure coronavirus, it's dangerous and illegal.
- The European Union is not handing out food cards to all its citizens.
- Eating pineapple, lemon, avocado or garlic does not protect against the coronavirus.
- Holding your breath for ten seconds does not indicate that you are free of the virus.
- Mosquitoes do not transmit coronavirus disease.
- Young people are just as likely to get it as adults.
- There is no evidence that the spread of the coronavirus was intentional or that the virus was created in a Chinese laboratory.
- Drinking bleach does not kill the virus; on the contrary, it causes poisoning in humans.
- "Do not go out on the balcony" is not included among the recommendations and prevention measures of the World Health Organization.
- Consuming hot drinks such as infusions, broths or hot water does not eliminate the virus, as it has not been proven that the virus cannot withstand high temperatures.
- The coronavirus does not die when exposed to the sun, nor does drinking a lot of water stop the coronavirus.
- To verify real, current, and reliable information about Covid-19, citizens should consult sources such as their country's Ministry of Health, the World Health Organization, the European Centre for Disease Prevention and Control or the Centers for Disease Control and Prevention. In addition, the world of journalism and communication should help to minimise confusion among citizens and provide quality and totally accurate information.

Recommendations for the dissemination of information on COVID-19

The public needs to be properly informed to avoid panic and confusion, and to keep the population together to comply with pandemic containment measures. Today's journalism also plays a key role in avoiding this misinformation, and in denouncing any kind of hoax.

It is important to remember that in the era of social media, you can make money by standing out in the crowd, and it is easier to attract followers and advertisers by being outrageous than by contributing rational things. The role of journalism should be to provide people with the information they need to build strong and healthy societies, even more so in times of crisis.

To make communication as effective as possible, avoid confusion and minimise the creation of fake news, a series of recommendations are set out for journalists, communicators and any content creator to follow.

- Make the content easily understandable: simple language should be used, accompanied by graphics that make the content easy to understand. It is important to find simple, attractive and truthful ways to convey the information and inform about the steps that people can take.
- Avoid speculating about possible worst-case scenarios. Focus on what you know and understand, and don't panic the reader.
- Provide readers with specific actions they can take. It is important to rely on recommendations made by experts to prevent the spread of the virus.
- Avoid disparaging language: anxiety, fear and worry are quite common in the face of uncertainty, so it is advisable to address false beliefs with empathy, without disparaging people who echo unfounded fears.
- It directs readers to consult official sources of information to avoid the spread of hoaxes. The media must be reliable and indicate the websites and the opinions of expert professionals to the readers, so that they can address them to keep themselves informed and enhance any consultation.
- Be responsible and avoid sensationalist language. Avoid spreading fear unduly and avoid terms such as "confusion" or "catastrophe". Alarmist headlines cause panic and bewilderment in the population.
- Think about which rumours to address. Not all fake news deserves coverage.
- Hoaxes end up becoming news, and many times the media try to disprove them. However, it is advisable to avoid drawing attention to rumours if they are receiving little participation or are acting in a very specific niche.
- Consider the impact of an image and choose it carefully to accompany a news story. It is important that it is not out of context and avoid photographs that may reinforce stereotypes or fuel panic (supermarkets with a shortage of products).
- Find out what information the population demands about Covid-19 and fill this gap in information. Due to the limited or non-existent relevant data available, it is important that the media act to provide quality and always truthful information.

Given the current scenario, it may not be entirely easy to carry out these guidelines, but it is important to keep them in mind as much as possible if you are going to communicate or share any information about Covid-19.

Because information is created by humans, no information is perfect. But some information is highly credible, some less so, and some not at all. We need to evaluate the information to make informed decisions, especially in a time of crisis like Covid-19.

5. Conclusion

The Covid-19 crisis has generated an enormous amount of unverified information about various aspects of coronavirus disease.

Humans are generally inefficient at detecting false information, because fake news often looks like real news, and when we share information, we examine things very little. You have to look at things like the source, the logo, the shape of the message or the information you have received or are consulting before you spread it. It is essential to verify the information so as not to contribute to the expansion of hoaxes, since the existence of fake news can lead to an increase in contagion or the worsening of the disease by Covid-19.

If we are looking for information to make good decisions, we must use the time necessary to evaluate the information. Most citizens tend to cling to the first information they find and give it undue weight in decision-making.

The role of journalism should be to provide people with the information they need to build strong and healthy societies, especially in times of crisis. For communication to be as effective as possible and to avoid confusing citizens, journalists, communicators and all content creators must avoid speculating about worst-case scenarios, using sensationalist language and spreading fear unduly. In addition, it will be important for them to provide readers with specific actions they can take during this crisis based on the recommendations made by the experts. They should also provide information on the official sources to which citizens can turn for information such as the websites of the Ministry of Health of each country and the WHO website. It is important to always consult official sources, and to trust health professionals and the indications of the Security Forces and Corps, and to urge that unverified information not be shared. In this way, the number of erroneous decisions made due to this news can be minimised, which end up being counterproductive to the interests of citizens and society.

References

Aguilera, 2020 – *Aguilera, J.* (2020). Xenophobia 'is a pre-existing condition'. How harmful stereotypes and racism are spreading around the coronavirus. *Time*, 1 Feb. [Electronic resource]. URL: https://time.com/5775716/xenophobia-racism-stereotypes-coronavirus/

Allcott et al., 2019 – *Allcott, H., Gentzkow, M., Yu. C.* (2019). Trends in the diffusion of misinformation on social media. *Research & Po*litics. 6(2).

Bakir, McStay, 2018 – *Bakir, V., McStay, A.* (2018). Fake news and the economy of emotions: Problems, causes, solutions. *Digital journalism*. 6(2): 154-175.

Baronchelli, 2018 – *Baronchelli, A.* (2018). The emergence of consensus: a primer. *Royal Society open science*. 5(2): 172-189.

Bessi et al., 2015 – *Bessi, A., Coletto, M. Davidescu, G.A., Scala, A., Caldarelli, G., Quattrociocchi, W.* (2015). Cience vs conspiracy: Collective narratives in the age of misinformation. *PloS one*. 10(2): e0118093.

Blanco-Herrero, Arcila-Calderón, 2019 – *Blanco-Herrero, D, Arcila-Calderón, C.* (2019). Deontología y noticias falsas: estudio de las percepciones de periodistas españoles. *El profesional de la información*. 28(3): e280308. https://doi.org/10.3145/epi.2019.may.08

Branicki et al., 2015 – *Branicki, L.I, Doreen. A.A.* (2015). Unpacking the impacts of social media upon crisis communication and city evacuation. In Preston, J. et al. (eds.). *City evacuations: an interdisciplinary approach*. Berlin and Heidelberg: Springer, 21-37.

Bratu, 2016 – *Bratu, S.* (2016). The Critical role of social media in crisis communication. *Linguistic and Philosophical Investigations*. 15: 232-238.

Chakravorti, 2020 – *Chakravorti, B.* (2020). As coronavirus spreads, so does fake news. *Bloomberg Opinion,* 5 Feb. [Electronic resource]. URL: https://www.bloomberg.com/opinion/articles/2020-02-05/as-coronavirus-spreads-so-does-fake-news

Constantin, 2015 – *Constantin, I.* (2015). Husserl, Habermas, and the lifeworld as the overall horizon within which individuals act. *Linguistic and Philosophical Investigations*. 14: 115-120.

Del Vicario et al., 2016 – *Del Vicario, M., Bessi, A., Zollo, F., Petroni, F., Scala, A., Caldarelli, G. Stanley, H.E., Quattrociocchi, W.* (2016). The spreading of misinformation online. *Proceedings of the National Academy of Sciences*. 113(3): 554-559.

Fung et al., 2016 – *Fung, IC.-H., Fu, K.-W., Chan, C.-H. et al.* (2016). Social media's initial reaction to information and misinformation on Ebola, Facts and rumors. *Public Health Reports*. 131(3): 461-473.

Guess et al., 2019 – *Guess, A., Nagler. J., Tucker, J* (2019). Less than you think: Prevalence and predictors of fake news dissemination on Facebook. *Science Advances*. 5(1): eaau4586.

Hotez, 2016 – *Hotez, P.J.* (2016). Texas and its measles epidemics. *PLOS Medicine*. 13(10): e1002153.

Howel, 2013 – *Howel, L.* (2013). digital wildfires in a hyperconnected world. global risks report. *World Economic Forum*. [Electronic resource]. URL: www3.weforum.org/docs/WEF_GlobalRisks_Report_2013.pdf

Kim et al., 2019 – *Kim, L., Fast, S., Markuzon, N.* (2019). Incorporating media data into a model of infectious disease transmission. *PloS one*. 14(2).

Kulshrestha et al., 2017 – *Kulshrestha, J., Eslami, M., Messias, J. Zafar, M., Ghosh, S., Gummadi, K.P., Karahalios, K.* (2017). Quantifying search bias: Investigating sources of bias for political searches in social media. *Proceedings of the 2017 ACM Conference on Computer Supported Cooperative Work and Social Computing:* 417-432.

Lazer et al., 2018 – *Lazer, D., Baum, M., Benkler, J., Berinsky, A., Greenhill, K., Metzger, M., … Zittrain, J.* (2018). The science of fake news. *Science*. 9, 1094-1096.

Lewandowsky et al., 2012 – *Lewandowsky, S., Ecker, U.K.H., Seifert, C.M., Schwarz, N., Cook, J.* (2012). Misinformation and its correction: Continued influence and successful debiasing. *Psychological Science in the Public Interest*. 13(3): 106-131.

Mendoza et al., 2010 – *Mendoza, M., Poblete, B., Castillo, C.* (2010). Twitter under crisis: Can we trust what wert? *Proceedings of the first workshop on social media analytics:* 71-79.

Merino, 2014 – *Merino, J.G.* (2014). Response to Ebola in the US: Misinformation, fear, and new opportunities. *BMJ*. 349: g6712.

Nica, 2015 – *Nica, E.* (2015). ICT Innovation, Internet sustainability, and economic development. *Journal of Self-Governance and Management Economics*. 3(3): 24-29.

Pera, 2015 – *Pera, A.* (2015). Cognitive psychology, mathematical reasoning, and organizational creativity. *Review of Contemporary Philosophy*. 14: 156-161.

Popescu, 2015 – *Popescu, G.H.* (2015). The Economic value of the industrial Internet of things. *Journal of Self-Governance and Management Economics*. 3(2): 86-91.

Popescu, 2016 – *Popescu, G.H.* (2016). Gender, work, and wages: patterns of female participation in the labor market. *Journal of Self-Governance and Management Economics*. 4(1): 128-134.

Rubin, 2019 – *Rubin, V.* (2019). Disinformation and misinformation triangle: A conceptual model for "fake news" epidemic, causal factors and interventions. *Journal of Documentation*. 75(5): 1013- 1034. https://doi.org/10.1108/JD-12-2018-0209.

Sáez-Martín, Caba-Pérez, 2018 – *Sáez-Martín, H.R., Caba-Pérez, M.C.* (2018). Using social media to enhance citizen engagement with local government: Twitter or Facebook.

Scheufele, Krause, 2019 – *Scheufele, D.A., Krause, N.M.* (2019). Science audiences, misinformation, and fake news. *Proceedings of the National Academy of Sciences*. 116(16): 7662-7669.

Schmidt et al., 2017 – *Schmidt, A.L., Zollo, F., Del Vicario, M., Bessi, A., Scala, A., Caldarelli, G., Stanley, H.E., Quattrociocchi, W.* (2017). Anatomy of news consumption on facebook. *Proceedings of the National Academy of Sciences*. 114(12): 3035-3039.

Schmidt et al., 2018 – *Schmidt, A.L., Zollo, F., Scala, A., Betsch, C., Quattrociocchi, W.* (2018). Polarization of the vaccination debate on facebook. *Vaccine*. 36(25): 3606-3612.

Scharot, Sunstein, 2020 – *Sharot, T., Sunstein, C.R.* (2020). How people decide what they want to know. *Nature Human Behaviour:* 1-6.

Starbird et al., 2014 – *Starbird, K., Maddock, J., Orand, M., Achterman, P., Mason, R.M.* (2014). Rumors, false flags, and digital vigilantes: Misinformation on twitter after the 2013 boston marathon bombing. *I Conference 2014 Proceedings*.

Starnini et al., 2016 – *Starnini, M., Frasca, M., Baronchelli, A.* (2016). Emergence of metapopulations and echo chambers in mobile agents. *Scientific reports*. 6: 31834.

Taylor, 2020 – *Taylor, J* (2020). Bat soup, dodgy cures and 'diseasology': The spread of coronavirus misinformation. *The Guardian*. 31 Jan. [Electronic resource]. URL: https://www.theguardian.com/world/2020/jan/31/bat-soup-dodgy-cures-and-diseasology-the-spread-of-coronavirus-bunkum

Veil et al., 2011 – *Veil, S.R., Buehner T., Palenchar, M.J.P.* (2011). A Work-in-Process Literature Review: Incorporating Social Media in Risk and Crisis Communication. *Journal of Contingencies and Crisis Management*. 19(2): 110-122.

Vosoughi et al., 2018 – *Vosoughi. S., Roy, D., Aral, S.* (2018). The spread of true and false news online. *Science*. 359(6380): 1146-1151.

Wang et al., 2019 – *Wang, Y, McKee, M, Torbica, A, Stuckler, D*. (2019). Systematic literature review on the spread of healthrelated misinformation on social media. *Social Science & Medicine*. 240: 112552

World Health Organization. 2020a – World Health Organization (2020). Novel Coronavirus (2019-nCoV). Situation Report 13, 2 Feb. [Electronic resource]. URL: https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200202-sitrep-13-ncov-v3.pdf

World Health Organization. 2020b – World Health Organization (2020). Novel Coronavirus (2019-nCoV) advice for the public: Myth busters. [Electronic resource]. URL: https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/myth-busters

Zarocostas., 2020 – *Zarocostas, J.* (2020). How to fight an infodemic. *The Lancet*. 395(10225): 676.

Zollo et al., 2017 – *Zollo, F., Bessi, A., Del Vicario, M., Scala, A., Caldarelli, G., Shekhtman, L., Havlin, S., Quattrociocchi, W.* (2017). Debunking in a world of tribes. *PloS one*. 12(7).