

Ethics, Fake News and Information Professionals

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Abstract. The dissemination of fake news has grown rapidly in the digital era. Any type of information, whether it be true, false, biased, or misleading, can be spread easily through digital platforms. There are different methods and media for delivering information. Additionally, institutions or information professionals such as media, journalists, political parties, politicians or financial companies are constantly bombarded by fake news. Fake News alters a reader's reality and as a consequence it is difficult to change their mind after they have read it. Information professionals have an opportunity to engage and educate communities through good practices based on using information literacy to fight false information. When archiving information or storing it in a library for the long term, professionals should follow a code of conduct to ensure they are providing objective information to patrons. However, this code of conduct is not just the responsibility of librarians or archivists, but should also apply to the creator of the original information. There are ethical issues facing information professionals in regards to dissemination and information disorders. In this paper, we analyze cases of unethical information behavior in different fields. At the same time, we explore ethical codes of conduct for information professionals, in relation to the spread of fake news on digital platforms. In conclusion, this paper will provide guidelines to avoid behaviors that could lead to unethical behaviors in relation to information disorders.

Keywords: fake news, librarians, information professionals, ethics, information disorder, professional ethics

1 Introduction

The dissemination of fake news generally involves one or more different goals for spreading false news. The first goal involves using news to damage someone's reputation with false, biased, or misleading information. Another is earning money through advertising based on clickbait techniques (Alvarez, 2017). These two examples show that fake news may have different uses and faces. The Internet, and social media in particular, allow the end user to easily and quickly disseminate any type of information in several different forms. Additionally, many institutions and information professionals such as members of the media, journalists, political parties, politicians or financial companies are constantly facing fake news. As literature shows, social media is heavily utilized by fake news. For example, a study in the United States showed that 55% of the population believed that false social media profiles are responsible for the spread of fake news (Richter, 2019).

Fake News tends to alter the reality of a story, and consequently it is difficult to change a receiver's mind once it has been altered. Fake News can provide a feeling of familiarity and truthfulness based on the illusory truth paradigm (Jackson, 2019). This sense of truthfulness enables the consumption of fake news. There are several motives for the creation and consumption of fake news. Some of the root causes of fake news include online communication, economic aspects (Blanco-Herrero & Arcila-Calderón, 2019), the lack of a centralized control mechanism for news consumption on social media platforms, and a decreasing trust of media (Budak, 2019). For instance, in Finland 59% of the population surveyed places trust in the media,

but in the United States only 32% seem to trust the news media, which is close to the levels of Slovakia (33%) or Malaysia (31%) (Watson, 2019a).

Bearing that in mind, it seems that the smaller budgets for traditional media to verify information and produce more rigorous work, together with a lack of online content control has enabled the spread of fake news.

In economic terms, fake news has a low cost of production and a high rate of dissemination because of how cheaply the content can be shared with millions of people (Khodabakhsh, Busch, & Ramachandra, 2018; Landon-Murray, Mujkic, & Nussbaum, 2019). Technology will continue to reduce the cost of creating and spreading fake news, and rapid advances in artificial intelligence (hereafter AI) will bring different and likely even faster approaches, effects, and form of content delivery. One example of this approach is the deep fakes, consisting of a modified video using AI.

This paper provides an overview of information disorder, unethical information, a discussion of the codes of conduct of information professionals and suggested guidelines to avoid unethical information behavior in relation to information disorder.

2 Information disorder, typologies and taxonomies of the fake news

Prior to discussing the different taxonomies proposed in literature, it seems necessary to discuss the meaning of information disorder and the role of fake news in it. Information disorder is the process of spreading false information with generally harmful consequences to the receiver who interprets the information.

Depending on the harm caused by the content, information disorder can encompass disinformation, misinformation and mal-information. Therefore, Fake News is part of information disorders, along with hoaxes, clickbait, bogus stories, and conspiracy theories. Thus, misinforming does not have the intention to harm (Sellnow, Parrish, & Semenas, 2019; Wardle & Derakhshan, 2017) while disinformation and mal-information have harmful intents.

Hoaxes, trolling, and propaganda are false or biased news that tends to deceive the reader. Contrarily, satire and humor, which create another genre of fake news, do not tend to deceive the reader (Verstraete, Bambauer, & Bambauer, 2017).

Some authors suggest that it is difficult to make concrete taxonomies for fake news, but there are some attempts, such as a taxonomy for varieties of ignorance: ignorance per se, disinformation, misinformation, missing information, self-deception or bad faith and dominant forms of calumny doxing and fake news (Froehlich, 2017). Another study suggested another taxonomy based on characterizing the source where fake news is disclosed, anonymous and bogus (Berghel, 2017). Multimedia content could have its own taxonomy of the different impersonation technologies and be divided into physical and digital (Khodabakhsh et al., 2018).

3 Unethical information behavior in different fields

Information use can be viewed according to what is considered unethical behavior. For instance, when comparing the use of information in two popular cases, WikiLeaks or the Donald Trump 2016 election, there is likely to be an agreement that both cases involve unethical behavior: even though these are two completely different cases involving information management, they both involve politics.

Unethical information behavior not only exists in news, but also in politics, science, economics and in the financial industry.

In the case of political economy, a study used game-theory political economy models and concluded that citizens might lose welfare when making economic choices based on misleading

information. Hiding information from citizens seems to lead to less access to welfare. Therefore, the risk of decreasing welfare also exists when there is a need to detect misleading information to prevent political decisions (Bullock, Mittenzwei, & Josling, 2019).

There are several known cases around the world in relation to scientific fields where information is misleading or biased, causing problems later to not only the creator's credibility, but also to the publisher's. For instance, in recent years in Spain, more than 1280 researchers were retracted by misconduct relating to their research (Abril-Ruiz, 2019). It is also possible to find a more accurate number of authors in the retraction databases from other countries (<http://retractiondatabase.org/>). There are also well-known cases relating to individual authors or research groups. For instance, in the field of diabetes research, after a principal investigator died, her colleagues published a paper of her research, but published manipulated data. (Schneider, 2018a). A genetics researcher was found to have published several papers manipulating data (Schneider, 2018b). There is pressure on researchers to publish scientific papers in order to obtain funding. Consequently, researchers might risk their professional careers by manipulating research data, which is a misinformation problem, even with a peer-reviewed process as is used in academia. Thus, the peer-review system in academia seems to be a good gatekeeper but it is likely not enough and should be improved.

Manipulating data in experiments or labs may have a risk that research cannot be repeated in similar conditions. Another question is the credibility of the scientist or the group of scientists who have published the data. However, this does not always lead to the spread of confusion. In the case of health emergencies, two social networking sites (hereafter SNS), Twitter and Sina Weibo, were analyzed and it was found that misinformation about Ebola was at a very low level (Fung et al., 2016).

In banking, financial misinformation was and is likely to be common in most countries. For instance, a study in Chile showed that users placed more trust in banking misinformation practices, even when social movement organizations provided counter information against these practices (Guzman, 2015). In another study it was found that when disseminating misleading information through media, it was not possible to show a price discovery process in capital markets (Kyung & Marquardt, 2018).

In some cases, it is possible to verify information through fact-checking tools, repeating experiments in the case of science, and with other techniques. It is more difficult when false information appears in places where is difficult to verify it, such as TV programs. For instance, in Spain a news TV program showed a false poster for Tsunami Democratic, the political platform which stands for the Catalanian Independence (Buesa, 2019, Tsunami Democratic, 2019, Vilaweb, 2019). In Catalonia and likely in Spain, it is well known by both those in favor of independence and those opposed that messages from this platform are spread from its official Telegram channel followed by more 400,000 people. This type of unethical use of information tends to discredit the Catalanian independence movement. The same platform dismissed the news and a fact-checking platform, too (Maldito Bulo, 2019).

4 Codes of conduct of information professionals

Information professionals have codes of conduct. For instance, the International Federation of Libraries Association (IFLA) outlines the importance of neutrality in access to information guidelines:

Access to information: "Librarians and other information workers reject the denial and restriction of access to information and ideas most particularly through censorship whether by states, governments, or religious or civil society institutions." (IFLA, 2016).

This statement relates not only to censorship, but also to freedom of information or intellectual freedom. The American Librarian Association (hereafter ALA) expresses similar ideas in their ethics code for the library professionals (ALA, 2017). In addition, the Association for Information Science and Technology (hereafter ASIS&T) professional guidelines state that *“To resist all forms of censorship, inappropriate selection and acquisitions policies, and biases in information selection, provision and dissemination”* (ASSIS&T, 1992). The increase of censorship leads to decreased access to information, but under some circumstances, some subsets of citizens may learn to evade censorship, especially government censorship to access information (Hobbs & Roberts, 2018). In the long term, it is likely that some fake news will be archived, for research purposes. According to the guidelines above, information professionals would provide any requested information to their users, even when this information is false, along with advice about the original of the information.

Neutrality: *“Librarians and other information workers are strictly committed to neutrality and an unbiased stance regarding collection, access and service.”* (IFLA, 2016)

In the Fake News context, information professionals have the difficult task of offering information that may be biased, misleading or maybe ignored. Information professionals are not always neutral since they shape information for users and some sources of information, such as those from minorities, political dissenters, or ethnic groups are avoided (Gibson et al., 2017). In addition, since fake news may affect net neutrality, users’ behavior may change and the dismantling of the net neutrality makes it challenging to ensure that there is equal access to resources for citizens at risk, as well as for information professionals (Adams & Harris, 2018). Internet service providers may not only decide to slow down traffic from certain sources, but may also only permit content in agreement with certain political views. This would be controversial for information professionals, as they avoid providing erroneous or misleading information and promote equal access to information (ASSIS&T, 1992).

Journalists, another information professional who deliver content, also have a code of conduct. The code of ethics of the Society for Professional Journalists highlights the fact that journalists’ work must be accurate, verifying and correcting information when necessary (Society of Professional Journalists, 2014). These statements are in contrast with the fact that 44% of the worldwide population surveyed had detected fake news in print media. In the case of Turkey, 72% of printed media, and in the United States 47% of printed media news are considered fake News (Watson, 2019b). In addition, 28% of the population of the United States who were surveyed said that they believe that CNN are spreading disinformation and 30% believe Fox News is doing the same (Richter, 2019).

5 Guidelines to Avoid Unethical Information Behavior

As mentioned, users are constantly exposed to these three types of information disorders. Information in the form of text, images, audio or video may contain biased information. In fact, fake News affects all countries across all scenarios such as economy, health, politics, employment and business, among others. To survive in the face of this unethical information behavior, users and information professionals have technological and educational solutions.

In terms of technological solutions, there are different useful strategies especially when this information come from a source, anonymous or not. One of these strategies, and likely the most used, is the use of fact-checking or reverse image search tools to detect this sort of false information. The main issue is that this strategy is done *“in past tense”* when the harm is likely already done.

Moreover, in extreme cases where emotions play an important role, such as religion, politics or activism, this is likely not possible. For instance, in the days leading up to the Catalan

Referendum in October 2017, thousands of messages were spread on WhatsApp groups and online forums. Some of these messages were credited to famous people or reputed professionals who were in favor of or against the independence process. However, some of them were false (Rubio, 2017). It is very difficult for users to verify this information if the person or organization involved has not really denied or approved, in most cases publicly, this information. In countries like India, the government shuts down not only the websites which spread misinformation online, but it also blocks Internet access to citizens, as in the case of Kashmir in 2017. However, this is a costly solution because of a negative influence on the economy caused by the blocking of access, leading to loss of money and business competitiveness (Kaur et al., 2018).

Other solutions proposed include the use of an AI process (Granik and Mesuyra, 2017). However, this sort of solution is not generalized to all SNS, is experimental, and needs to be studied and developed in more depth.

In relation to educational solutions, most authors are in favor of improving the information literacy skills of users. This enables users to be critical about the type of content they are viewing, along with its source, the evidence, interpretation, completeness and knowledge (Houtman & Wall, 2019; Rosenstiel, 2013). A study proposed a theoretical framework based on three phases: pre-contribution, during contributions and post-contributions, particularly addressed to the gallery, library, archive and museum (hereafter GLAM) sectors (Qutab, Myers, & Gardner, 2019). Therefore, this sort of solution is most useful when information is within the realm of information professionals, ideally in a closed environment.

Information literacy reinforcement programs have been adapted to current times, also emphasizing the importance of the information selection process (LopezBorrull, Vives-Gràcia, & Badell, 2018). In this way, users are trained by information professionals to distinguish false information. Otherwise, misleading or false information can be disseminated and, even worse, the user manipulated. For instance, at Stanford University, information literacy is a classroom priority using disciplinespecific examples, reviewing fake news and propaganda and demonstrating that it affects all subject areas (Benson, 2019).

To users, before sharing information it is important to verify it. Ideally, this process should be automatic and preferably transparent. This is also the credibility and reputational issue. Users who share checked and verified information are more likely to be reliable. However, Asian countries such as Japan, Singapore or South Korea do not have easy methods to verify information as there is not an established media practice or there is not enough solutions (Kaur et al., 2018).

The issue to the user arises when this information is from an official channel that is supposed to be trustworthy, such as a newspaper or a TV channel. Thus, the solution currently seems difficult to find whether it be by technical or manual means.

Without a unique solution to avoid unethical information behavior, information professionals have to reinforce information and media literacy among users so that they can readily spot misinformation, but media also have an obligation to work ethically.

6 Discussion

The spread of fake news has social implications and its influence on the economy, politics, culture or welfare is bigger than we may think. There are no easy solutions for spotting Fake News and inoculating against it as we do for viruses (Cook et al., 2017), could work in certain fields or situations, but not in all of them.

Information disorder is not an involuntary act. There are intent and planning behind the spread of false news. The term planning refers to a well-thought-out strategy to change user

perception. This perception can be a calm reaction, such as to change someone's opinion about a topic, but it can also be violent, such as in the area of religion, which can be extreme. Therefore, different types of Fake News can be used in the publishing context, not just the spread of false information, but other types including hoaxes, trolling, or propaganda, used individually or as part of a mixed strategy. In relation to that, I think that information literacy is not the complete solution to detect the dissemination of false news, but the use of technology is essential to mitigate the harms and other side effects of Fake News (Leetaru, 2019).

Once false news is spread, the harm is done and it is very difficult to use countermeasures with a similar impact. The financial investment required to combat the harm of false news has not been quantified, but it is certain that it would not be the same amount of money as the creation, production and spread of false information, but I believe it would certainly be more. In Reuters Digital Report 2018 (Reuters Institute, 2018) it was suggested that government interventions are expected in European and Asian countries, but I think that legislative measures would not have a real dissuasive effect, even with economic punishment. Thus, some governments and lobbyists worldwide use false news for their own benefit. One example is the case of Brexit (Tatterstall, 2018). This is one of the contradictions of the initiative to spot the Fake News effect through legislative initiatives.

The information professionals' code of conduct enables them to be a reliable source in offering training about information literacy to users, and also when curating content to provide reliable information to users. However, information professionals may also need the support of other professionals such as scientists or lawyers to evaluate information misconduct.

Finally, another question to consider is training in information literacy. Information literacy offers what ethics cannot offer such as sources' selection and evaluation. Therefore, training in media or information literacy not only needs content curation strategies but an ethics side. In addition, false news can be part of the worldwide indicators of education. Measuring the information literacy of a country would likely also involve measuring their level of education. It is likely that the PISA test could measure information literacy levels as an indicator. PISA indicators measure levels of reading and understanding, among other performance indicators (OECD 2016) and information literacy. Given that fake news is a global problem, it is possible that creating indicators with the PISA test could help to understand this urgency and minimize risks.

7 Conclusion

The rise of Fake News has led to new research areas for information professionals, including ethics, trustworthiness, information selection and content curation. Moreover, as technology continues to evolve, it is likely that new varieties of fake news will appear.

As mentioned previously, fake news has a low barrier to entry in terms of cost and ease of production, so it is very easy to spread. Anyone with harmful intent, whether physical or psychological, has the power to modify users' behavior. This can have an impact on economics, science and business, among others. In addition, the neutrality of the Internet is also affected since users generally do not have other information sources, especially in areas where Internet connections may be limited.

It seems logical that information professionals' codes of conduct do not fully prevent the spread of fake news. However, librarians, archivists, documentalists and other educational professionals have a unique opportunity to engage users to reinforce information literacy. Helping users to avoid fake news is not an easy matter, but with the right tools at their disposal, they would be better informed and able to use good judgment.

Future research areas could include the influence of fake news in education and information literacy programs.

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