



## **HOW DO CHILDREN AND ADOLESCENTS PERCEIVE AND RELATE TO FAKE NEWS? A QUALITATIVE APPROACH DURING THE COVID-19 PANDEMIC**

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### *Abstract*

*False news is a fairly common phenomenon today that interferes with people's lives, regardless of age, and it can significantly impact the lives of children and adolescents. We conducted a study highlighting how children perceive fake news and their related experiences with this phenomenon. Our sample consisted of 193 children and adolescents aged 10 to 17 ( $M=12.59$ ,  $SD=1.71$ ). They were asked to describe the fake news phenomenon in three words and then detail any related experiences. Next, we performed a qualitative analysis to capture the most common responses. Results suggested that children tend to consider fake news most often as lies (43.58%), mass-media channels (18.87%), and manipulation (14.72%). In addition, almost 30% of participants experienced fake news through television programs, while 14% reported fake news experiences through online social platforms. Finally, we discuss the practical implications of our research and the potential educational strategies aimed to increase adolescents' knowledge related to false news detection.*

**Keywords:** fake news; children; adolescents; mass-media; COVID-19

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## Introduction

Fake news is a growing phenomenon nowadays, gaining momentum with the advent of the Internet and, more importantly, the increased number and usage of social media platforms (Rampersad et al., 2019). When discussing fake news, it is essential to take into account two possible related dimensions that the fake news phenomenon might refer to: on the one hand, it refers to *disinformation*, *i.e.*, the false news that is presented on social media as factual news, and, on the other hand, it also refers *misinformation*, *i.e.*, the actual distribution of false news in the media, even if they are shared intentionally or without any premeditated harmful intentions (Ha et al., 2021).

Lazer and their collaborators (2018) suggested that the phenomenon of fake news is, in fact, "fabricated information that mimics news media content in form but not in organizational process or intent. Fake-news outlets, in turn, lack the news media's editorial norms and processes for ensuring the accuracy and credibility of information" (p. 1094). Other authors prefer to use the term "false news", and not "fake news", which might be considered rather political, and not having a necessarily psychosocial connotation (Wardle & Derakhshan, 2017). Thus, false news propaganda is encountered mainly in the online environment, through social networks such as Facebook or Twitter, and the prism of news sites or TV channels.

One of the essential questions is *who* and *what* is behind the spread of this false news. Some authors suggested that people who spread such news online generally do that on purpose (premeditated spread of false information) and intentionally misinform through their actions (Calvert & Vining, 2017). For example, many social media influencers, content creators, or even journalists use the clickbait method, *i.e.*, a strategy by which the title of an article/video is formulated in a "catchy" way, but the actual content of that material is not about what might be suggested in its title (Chen et al., 2015). Other researchers considered that people do not necessarily intentionally share fake news but rather believe it is accurate and later share it online. A fake news story becomes visible in the online environment once transmitted massively from one user to another (Ha et al., 2021). For example, a famous, recent Romanian case of false news spread is related to a young influencer who managed to fool the press about his (fake) car accident. Various TV channels broadcasted the fake news, and its content was massively shared also online through social media platforms. Later on, the

influencer explained that it was just a set-up to show how easy it is for people to believe everything they see on TV or online platforms.

When confronted with a story, some scholars pointed out that we can discern whether the story's content is false or accurate depending on the quantity of information the story/article/source provides (Park, 2005; Parksin, 2018). For example, Parksin (2018) confronted participants with several stories (political or sports news articles taken from various media sites). These stories' lengths were increased gradually, with more information added to each story compared to the previous one. Their results suggested that most participants could more accurately estimate the truth of the news presented when they received more information about that context (Parksin, 2018).

Another critical issue related to fake news spread and perception concerns the age of the people who consume or share fake news stories. Brashier and Schacter (2020) pointed out that older people might encounter difficulties correctly distinguishing between true and false and often distribute fake news. However, social platforms are available to older and younger people alike, and some authors point out that adolescents might as well contribute to mass misinformation, especially by spreading this content on social networks (Rampersad & Althiyabi, 2020). However, other authors argued that adolescents might also contribute to the fight against false news, not only to spreading misinformation (Lim & Tan, 2020). At the same time, education could play an essential role in the distribution or consumption of fake news, this being explained by the fact that people who have a high level of education might not fall prey that easy into the false news trap, as they might be more able to differentiate between the truth and the fake in a particular story (Giroux, 2018; Lee, 2018; Rampersad & Althiyabi, 2020).

#### *The Fake News phenomenon among children and adolescents*

Online media's impact on people's lives has significantly increased in the past decades, especially after the 2000s (Valcke et al., 2011). The number of internet users in the European Union is currently around 728 million out of the total number of users worldwide (5 billion). Approximately 14 million Internet users in Romania were registered in December 2020, and more than 12 million are Facebook users (Internet World Stats, 2009). We already know that today's children and adolescents have access to any information with a single click, spending a significant amount of time on social media platforms (*e.g.*, Facebook, Twitter, Instagram) and video networks, such as Youtube and Skype (Byrne &

Burton, 2017; O'Keeffe & Clarke-Pearson, 2011). In fact, since the early 2000s, children have been seen as the "digital generation", as the Internet is more and more present in people's private lives (Livingstone, 2003).

In addition to the socialization purposes, children also use the Internet for educational reasons, such as homework documentation (Byrne, 2006; Byrne & Burton, 2017). For example, Zakharov, Li, and Fosmire (2019) qualitatively explored young people's perception of fake news in a scientific context. They noticed that young people mainly extract their information from official news sources (such as CNN) when doing their homework/documentation and generally use their mobile phones when searching for these answers (Zakharov et al., 2019). Another relevant factor to how people perceive news, in general, is related to how their titles are written, *i.e.*, whether they aim to generate money ("ad revenue") (Lee, 2018). A recent study (Pilgrim et al., 2019) suggested, for example, that the characteristics of the text (font, subtitles, icons), previous knowledge about the subject (knowledge about context), and general knowledge about various factual aspects (knowledge about facts) are some aspects that also seem to influence one's critical thinking related to news, in general.

Although the vast majority of parents believe that they can protect their children from false content spread on the Internet or from inappropriate information, some of them do not have the knowledge to do so, especially considering that, in various cases, children may be more digitally advanced than their parents (O'Keeffe & Clarke-Pearson, 2011). Furthermore, this freedom of access to any information makes us wonder how well children and adolescents can distinguish between true and false online content. For example, the Romanian school and its curriculum do not currently contain educational courses dedicated to developing students' skills for identifying false news or raising media awareness, which could significantly solve the numerous issues and consequences related to fake news spread and consumption (Dumitru, 2020).

Some authors (*e.g.*, Dumitru, 2020; Loos et al., 2018; Leu et al., 2007; Pilgrim et al., 2019) explored the extent to which children and adolescents could identify a fake site when being exposed to an article about a non-existent animal. For example, Dumitru (2020) conducted an experiment where 54 children and adolescents read an article about a fake animal, *i.e.*, the "Jacalop". After reading the information about this supposedly endangered animal, the children answered a series of questions about the validity of the information read and the extent to which they would sign a petition to save those animals (*i.e.*, "Jacalops"). Results

suggested that only 4 out of the 54 participants answered that they would not sign the petition to save the "Jacalop", and their reasons were not related to the fact that the site is fake, but rather to the fact that this animal would be dangerous and does not deserve to be saved (Dumitru, 2020)

However, how do children differentiate between false and trustworthy information, especially within the online environment? Previous research that explored this issue (*e.g.*, Abu-Fadil et al., 2016; Rayess et al., 2018; Wang, 2007) suggested that one of the reasons could be related to the fact that some children might overestimate their digital skills, thinking that they "know them all" (Rayess et al., 2018; Wang, 2007), or they simply do not even consider that the information might be false, since it's already spread online (Abu-Fadil et al., 2016; Loertscher, 2017). For example, Rayess and their collaborators (2018) explored this issue in a study in which participants (teenaged students) read a series of false articles (*i.e.*, news related to Brexit), saw some misleading images (*i.e.*, the image of a demon named Orchid), or large-scale lies (political, *i.e.*, about Barack Obama offering money to Syrians to move to the US), and asked them to evaluate the veracity of these materials. Their results suggested that adolescents were not used to evaluating such information, *i.e.*, questioning such issues, most of their answers pointing to the correctness of the materials presented and not to their potential falsity (Rayess et al., 2018).

Several well-founded solutions were suggested to prevent misinformation by training children and adolescents to correctly identify fake news and false information, in general (Bulger, & Davison, 2018; Jacquinet, 2008; Leo et al., 2015). Media literacy (*i.e.*, a set of skills that promotes critical engagement in the message produced and transmitted by media sources; Bulger & Davison, 2018) is one of the suggested strategies. Media literacy can be trained through programs to enhance critical thinking, *i.e.*, and ask questions about the online and offline content that we encounter, the purpose of the message, the persuasion techniques used to spread the message and increase awareness, and the potential ways that people might interpret these contents are some of the factors included in media literacy education (Hobbs, 2007). In addition, previous research suggested that media literacy might be a flexible way to discuss various sensitive issues, such as violence and racism (Bulger & Davison, 2018), or it can serve as an efficient way to improve critical thinking and suggest various behavioral changes among young people (Jeong et al., 2012). On the same note, Kahne and Bowyer (2017) suggested that young people with high levels of media literacy evaluated evidence-based

content evidence and facts as more accurate than materials containing misinformation.

Like media literacy, web literacy refers to critical thinking concerning information through online sources and channels (Leo et al., 2015). Web literacy requires additional skills and knowledge to those required by media literacy, such as locating, evaluating, synthesizing, organizing, and communicating information that appears through online sources (Leu et al., 2015). To locate the desired information, one must engage in Boolean and advanced searches; once localized, the results provided by the search engine must be evaluated to verify whether the information is relevant or not (Pilgrim et al., 2019). This specific web-literacy skill, *i.e.*, the ability to evaluate the relevance of online information, is considered by Leo et al. (2015) to be one of the most challenging skills to acquire, especially among youth (Goldman et al., 2012).

### **Objective**

Our study aimed to explore how children perceive fake news and their related experiences with this phenomenon. We used a qualitative approach to better view the fake news representations, aiming to gather spontaneous reactions to a growing and worrying phenomenon that seems to be significantly increasing during the Covid-19 pandemic.

### **Method**

#### *Participants*

Our cross-sectional study sample consisted of 193 children and adolescents aged 10 to 17 ( $M=12,59$ ,  $SD=1,71$ ). The sample was balanced in gender, 98 (50,8%) were males, and 95 (49,2%) were females. Students' participation was voluntary, and their answers remained anonymous. Before the study, children's parents received consent forms, and most of them agreed to participate (88% acceptance rate). Participants were all students in a public school located in the northeastern region of Romania. They were all informed that all the information and data would remain confidential, that there were no right or wrong answers, and that they could leave the study at any time.

#### *Research materials*

Only a few studies explored youth's perceptions about fake news, and we designed our research based on one of these studies (Zakharov et al., 2019).

However, our participants were much younger than the sample in Zakharov et al.'s study (*i.e.*, their participants were aged 18 to 24); therefore, we adapted their design and constructed a scale with two open items that helped us to observe in detail participants perception of the fake news phenomenon. More specifically, participants answered the following open questions:

1. *What does Fake News mean? Write down the first three words that come to your mind;*
2. *Have you ever read or heard a fake news story? When? Can you tell us what you did then?*

Additionally, we explored the context in which they first contacted fake news. After the children answered the three questions, the researchers had a 10-minute presentation about the fake news phenomenon, and children rated, on a Likert scale ranging from 1 (not at all useful) to 5 (very useful) (*i.e.*, "How useful was today's workshop for you, in understanding fake news?"), the workshop's efficiency in helping them understand the spread of fake news, especially during the Covid-19 pandemic. Finally, A demographic scale assessed children's age and gender.

#### *Procedure*

The current research was part of a larger study related to fake news, conducted in September 2020, right after the schools were reopened following their closure in March 2020, due to the Covid-19 pandemic. The average time needed to answer the questions was about 10 minutes, and they were rewarded with pens and stickers for their participation. All participants offered individual answers. Two researchers administered the scales in a regular school day in students' classrooms. The study was designed following the Declaration of Helsinki and the ethical guidelines from the faculty where the authors are affiliated.

#### *Data analysis and results*

We approached our results using a mixed-method analysis. First, we used statistical analysis performed in the 24.0 version of SPSS for quantitative data. Frequency analyses and content analyses were used to examine the responses to the open questions. Finally, we used a qualitative analysis similar to Smetana's (1985) qualitative approach to explore how participants perceived fake news.

Previous studies used similar qualitative analysis methods by coding the participants' answers to open questions into different categories (*e.g.*, Greco & Ison, 2014; Maftai & Holman, 2020; Smetana, 1985). To assure the quality of the

research, we approached the coding procedure using a multi-perspective way. Other than the authors, two researchers analyzed participants' answers and placed them into categories, grouping the first question's 530 answers into six categories (see Table 1) and another 193 answers for the second open question into seven categories (see Table 2). The coding procedure involved reading and analyzing each answer offered by participants. Cohen's kappa ( $k > .80$ ) indicated strong inter-rater reliability between the coders.

Table 1. Participants' answers to Question 1

Category	Example answers	N	%
Lies	<i>hoax</i> <i>fooling</i> <i>lie</i>	231	43.58%
Media channels	<i>Facebook</i> <i>TV</i> <i>Youtube</i>	100	18.87%
Manipulation	<i>propaganda</i> <i>misinformation</i> <i>confusion</i>	78	14.72%
Deception / Fraud	<i>threat</i> <i>financial benefits</i> <i>danger</i>	62	11.70%
Emotions generated by fake news	<i>fear</i> <i>concern</i> <i>anger</i>	39	7.36%
Others	<i>useless</i> <i>content</i> <i>government</i>	20	3.77%

Note: N<sub>answers coded</sub> = 530

The first open question ("What does Fake News mean? Write down the first three words that come to your mind") comprised 530 answers, from a possible total of 579. Only a few children did not offer an answer to this question, and some of them wrote one or two answers. As shown in Table 1, the category "Lies" has the most answers (N=231, 43,58%), followed by "Mass-media channels" (N=100, 18,87%). Category "Manipulation" (N=78, 14,72%) and "Deception / Fraud" (N=62, 11,70%) got more than 10% of the total answers each, in comparison to "Emotions generated by Fake News" (N=39, 7,36%) and "Others" (N=20, 3,77%) which included only a few words.



Table 2. Participants' answer to Question 2: "Have you ever read or heard a fake news story? When? Can you tell us what you did then?"

<i>Participants' answers and related category</i>	<i>N</i>	<i>%</i>
Did not hear or read any fake news story	94	48.70%
TV sources not Covid-19 related	30	15.54%
TV sources Covid-19 related	27	13.99%
Online sources not Covid-19 related	20	10.36%
On-line sources Covid-19 related	6	3.11%
Other sources than TV / online not Covid-19 related	15	7.78%
Other sources than TV / on-line Covid-19 related	1	0.52%

Note: N<sub>answers coded</sub> = 193

Table 2 includes the categories for the second open question(s), *i.e.*, "Have you ever read or heard a fake news story? When? Can you tell us what you did then?". A total of 193 answers were offered for this question. Almost half of our participants considered that they did not hear or read any fake news (N=94, 48.70%). Given that we conducted the study during the Covid-19 pandemic, many answers were related to the virus. Thus, categories were constructed mirrored: sources related or non-related to the Covid-19 pandemic. Participants that heard or read about fake news reported mass media, *i.e.*, television as the primary related source (N=57, 29.53%), 13.99% of these answers being Covid-19 related. Online sources were responsible for 26 answers (13.47%), and only six were Covid-19 related (3.11%). Other sources (*e.g.*, radio, word of mouth) generated 16 answers (8.29%), and most of them (N=15, 7.78%) were not Covid-19 related.

## Discussion

In a time when online media platforms and channels, in addition to television, such as the present, seem to be primary information sources for children and adolescents, we consider it highly important to enhance their critical thinking and train their capacity to discern between false and factual information. As far as we know, our article is the first to examine how Romanian children and adolescents perceive and relate to the fake news phenomenon. Previous studies explored these issues while addressing other constructs, such as children and adolescents' ability to identify false news and not their specific representations about the phenomenon itself (Dumitru, 2020; Leu et al., 2007; Loos et al., 2018; Pilgrim et al., 2019).

One of the most interesting results from our qualitative analysis is related to children's associations between fake news and lies, *i.e.*, "inventions" or "tricks". Interestingly, some authors suggested that children and adolescents may consider lies as selfish acts if they notice premeditated wickedness in the speaker's or writer's intent, and, therefore, would care less about the content because credibility in these cases would be significantly affected (Cheung et al., 2015). Therefore, we consider this specific link as a potentially significant future research direction when exploring the power of fake news, its impact on children and adolescents, and, most importantly, whether or not deliberate misinformation might be interpreted differently than unpremeditated misinformation.

In addition to lying, children and teenagers linked fake news to various mass media channels, such as "advertising", "press", "Facebook", "Youtube", "gossip at TV". The variety of these representations suggests that the spread of false news seems familiar regardless of the media channel used. Several findings suggested that false news propaganda is most typical within the online environment (through social networks) and TV (Berduygina et al., 2019). Therefore, it may not be surprising that some children also consider that these are the primary means of misinformation. Another significant result is that many answers were related to fake news being linked to "manipulation." Thus, the participants in our sample seemed to understand that false news can often be used as they intuitively suggested: "for dirty purposes", "deception", or "misinformation".

Some participants' answers linked fake news representation to negative emotional states, such as fear, anger, and worry. Previous studies support this claim, suggesting that internet "giants" (*i.e.*, Google, Facebook, Twitter) are often fake news sources that can go viral and generate strong emotional reactions for their target audience (Goswami, 2018).

Both by the nature of the associated words and the examples for the primary sources where they encountered fake news, the participants in our sample suggested that they were familiar with the various ways in which false news can be perpetrated and, more importantly, how fake news can affect them. Also, some participants mentioned that they encountered fake news through other means (in addition to online platforms and television), such as radio and word of mouth. However, the small number of answers pointing out different ways of perpetration, other than TV and the Internet, suggested the significant impact digitalization has

had within the last years, compared to other, more traditional communication ways (Goswami, 2018; Ha et al., 2021).

On the other hand, results suggested that a considerable proportion of the participants reported that they were not exposed to this phenomenon (*i.e.*, they did not see, read, or hear any false news). Though highly possible, especially if children were not exposed to the Internet a lot or other media channels (though unlikely, given the Covid-19 and its implications), another potential explanation for this specific result might be related to participants inability to detect fake news, which highlights the need for further related educational programs.

Regarding the primary sources mentioned by the participants as the previous contact with the phenomenon, many responses were related to the COVID-19 pandemic, which might suggest the significant impact of the pandemic in several aspects of children's and adolescents' lives (O'Conner & Murphy, 2020), and the dangers of the infodemic that the World Health Organization (2020) already warned us about since the beginning of the Covid-19 health crisis.

Like any other study, our research has some limitations. One of them is related to the small number of participants, indicating lower generalizability. Future research might consider more extensive and heterogeneous samples (*e.g.*, age, gender, region). The Covid-19 pandemic might also have played a significant role in shaping our participants' responses, given the increased number of conspiracy theories around the origin of SARS-CoV-2 and, generally, about the pandemic (Pummerer et al., 2021). Thus, future studies might explore children's and adolescents' perceptions of fake news at a time when no such significant event as the Covid-19 pandemic has recently occurred to investigate whether their perceptions are similar to the present results.

Despite these limitations, we consider that the results of our qualitative analysis might be an important contribution to the literature exploring children's and adolescents' perceptions of the fake news phenomenon. Also, our results might contribute to a better clarification concerning the potential educational programs that should be implemented (*e.g.*, fake news workshops, in addition to media and web literacy training) to increase awareness concerning the adverse effects of misinformation and, more importantly, efficient ways to fight fake news.

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