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Chapter 2

Teenagers faced with "fake news": perceptions and the evaluation of an epistemic risk

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Introduction

The phenomenon referred to as fake news is causing great concern in political, journalistic, scientific and educational circles (Huyghe 2018). It revives the problem of disinformation and the risks associated with it. A catch-all word, its use is very common yet challenged and even contested in the academic sphere. Although it is not a completely stabilized scientific concept, the expression fake news has a real-life basis in the media and society, which justifies its use in this study.

The objective of this research is not to propose an objective approach to fake news but to focus on its perception by a specific category of the population: teenagers. On the face of it, we could say that they are particularly concerned by this informational problem since they frequently use social media to inform themselves about current

events (Aillerie and McNicol 2016) and that it is mainly through these channels that fake news is spread (Martens *et al.* 2018).

Nevertheless, while the scientific literature shows that young people have difficulty evaluating credibility of information and the authority of sources on the web in a rational and critical manner (Serres 2012; Sahut 2017), we do not have – to our knowledge – any work in information and communication sciences specifically on their perception of fake news. We have thus opted for a comprehensive approach focused on the perceptions and practices of teenagers in relation to this informational phenomenon. Our general hypothesis is that this theme constitutes an entry point to better understand their relationship to digital information and their understanding of its epistemic dimension, in other words their perceptions of the "true", the "false" and the "uncertain" within their informational environment.

This exploratory study will therefore attempt to provide answers to the following questions: what do teenagers believe and know about fake news? Do they feel exposed to a specific informational risk? How do they go about identifying and evaluating this type of information?

To this end, we will first propose a synthesis of studies on the processes of production and dissemination of fake news as well as on how it is identified and assessed by the public. The aim is to characterize fake news from a scientific point of view in order to better identify the informational risks it is likely to generate. Then, we will adopt a comprehensive approach aiming at revealing the perception of this informational and social phenomenon by teenagers. We will then specify the methodology of our study, based on interviews with fourteen young people aged 14 to 17. Finally, our results will be presented and discussed by comparing them with other studies, particularly those concerning credibility judgments. They will thus be put in relation with questions on media and information literacy (MIL) and more particularly, with reflections on the teaching of the critical evaluation of information.

2.1. Fake news: from its production to its reception

Since 2016, the topic of fake news has given rise to a large number of studies combining computer science and social sciences. Most of this research focuses on the process of its creation and propagation, the actors involved, their motivations, and the detection systems developed to try to deal with it.

We do not claim here to summarize the hundreds of articles published on this subject (for a synthesis, see Kumar and Shah 2018; Zannettou *et al.* 2019). We will simply point out the characteristic features of fake news, which will lead us to identify

the potential risks it generates. We will then notice that studies on how audiences perceive the credibility of fake news are much less numerous. However, they are essential to understand the real risks they represent.

2.1.1. Characterizing the fake news phenomenon

While the term "fake news" has entered common use since the 2016 U.S. presidential campaign, it retains a certain semantic vagueness. Researchers themselves are divided on the use of this concept in an academic setting; and when they do use it, it is clear that it covers different realities (Tandoc *et al.* 2018). Without claiming to give a unanimously accepted definition, we can discern traits characterizing this informational phenomenon:

- fake news concerns current events: politics, of course, but also news, health (vaccination, nutrition), finance, etc. (Lazer *et al.* 2018; Zannettou *et al.* 2019);
- it is spread via social media with the aim of reaching a wide audience (Allcott and Gentzkow 2017);
- it imitates the forms and codes of journalism: article, captioned press photo, livestreams, etc. (Starbird 2019);
- the information is not only *false* but fabricated and falsified (*fake*) to appear credible and thus deliberately mislead the reader or viewer.

Thus defined, fake news is a particular category of the broader concept of disinformation, understood as inaccurate information intentionally issued by a source that thus seeks to create false beliefs (Fallis 2015). It can therefore be distinguished from the concept of misinformation, which can be defined as inaccurate information issued by a source unaware of the erroneous nature of its statement (Søe 2016).

Fake news producers may pursue one or more political or ideological goals: they seek to support a worldview, sow confusion, or weaken an opponent (Huyghe 2018). They can also obey mercantile motivations: generating traffic on websites to sell advertising space. Fake news then takes the form of *clickbait*. It has deliberately misleading titles to attract the attention of the Internet user and incite him to click on a hypertext link; the latter is then exposed to lucrative advertisements for the source. Finally, some individuals – sometimes referred to as trolls – disseminate fake news for entertainment purposes or to gain visibility and popularity on the web (Zannettou *et al.* 2019).

To be more grasped more subtly, the phenomenon of fake news must be resituated in a more global informational and communicational framework. While document

falsifications have a long history, they find in the digital ecosystem a particularly fertile ground (Latzko-Thot 2018). The production and dissemination of fake news are indeed facilitated by:

- the "modifiability" of the digital document: word processing, image editing and audiovisual editing software are now in common use. They encourage manipulation, in the sense of data processing but also of maneuvering to distort reality;

- the multimedia dimension of digital technology: the ability to combine documents from different semiotic systems (written, still or moving images, sound) makes it possible to produce "documentary evidence" to support a false or fantasized assertion (Rebillard 2017);

- self-publishing on the web: this technical possibility makes it possible to do without the editorial filters inherent in print culture;

- the existence of online communities based on sociability devices (forums, digital social networks, collaborative sites): fake news is thus developed within the framework of exchanges on forums and then disseminated via social media (Zannettou *et al.* 2017);

- the speed of information dissemination: the interconnections inherent in digital social networks favor the virality of false information, which spreads more quickly and widely than proven information (Vosoughi *et al.* 2018);

- automation of dissemination: software called botnets, linked to fake accounts on social media, contribute to the massive propagation of fake news (Zannettou *et al.* 2019);

- the international dimension of communication on the web: governments of authoritarian countries but also of democracies employ "cyber soldiers" for the purpose of manipulating information, intended for their own population as well as those of foreign countries (Bradshaw and Howard 2017). Note that these "cyber soldiers" may themselves find a pecuniary motivation, following the example of those students in Macedonia who massively fabricated fake news during the 2016 American elections and made substantial profits from it (Mercier 2018).

2.1.2. The potential risks associated with fake news

The anxiety generated by fake news results from the risks that it can generate both at the individual and collective level. This is a particular kind of informational risk that we will call epistemic because it is linked to the truth value of information. At the

individual level, being misled by a fake news constitutes a waste of time at the very least and is distracting. The consequences can be more serious if the deception is not identified. Indeed, believing in false information can bias acquired knowledge but also lead to harmful decisions and actions. One need only imagine the potential harmful effects on health, a field particularly affected by disinformation on digital social networks (Waszak *et al.* 2018). We should also emphasize the tension brought about by the uncertainty of the truth value of information: while too much credulity can be problematic for the reasons mentioned above, the increased fear of being duped can lead to an exacerbated distrust of sources and to depriving oneself of potentially beneficial information.

The informational risks associated with fake news can also have a societal dimension. Indeed, fake news contributes to the counter-discourse that fuels distrust of traditional authority figures such as journalists, politicians and scientists (Badouard 2017; Proulx 2018). They are not only likely to increase this mistrust but also to generate confusion and the feeling that it is impossible to access a truth of facts. The possible consequences are, on the one hand, disinvestment in political life and, on the other hand, the impossibility of a democratic debate. The latter is based on the shared recognition of proven facts, which constitute common references from which interpretations and arguments can be exchanged. The term post-truth thus reflects the concern that emotions and personal beliefs will take precedence over the consideration of objective facts and rational arguments (Mercier 2018; Revault D'Allonnes 2018).

In a similar way, the issue of fake news is related to those of echo chambers and filter bubbles, phenomena in which individuals are exposed to homogeneous content according to their ideological preference (Bakir and Mc Stay 2018). Empirical studies have shown that social and political homogeneity is a driver of the spread of disinformation on digital social networks (Del Vicario 2016; Starbird 2017). This homogeneity thus serves to polarize opinions and fragment the public space. Thus considered, we perceive the threats that fake news pose to democratic life. By fueling epistemic uncertainty and exacerbating divisions, it constitutes an obstacle to the ideal of collective deliberation based on rational reasoning.

However, the seriousness of the risks mentioned here remains a debated issue (Cardon 2019). It implies apprehending the degree of exposure of the public to fake news as well as attitudes towards it. A study carried out in the French information context sheds interesting light on these points (Flechter *et al.* 2018). It shows that sites considered as vectors of fake news have a relatively low monthly audience (between 3.1% and 0.2%) compared to traditional media sites (22.9% for *lefigaro.fr*, 19% for *lemonde.fr*). But it also underlines that the fake news spread by these sites generated as many or more interactions ("likes", shares or comments) on Facebook than the

information coming from traditional media. These interactions show an interest in the fake news, without proving an adherence to the content it conveys. The individuals who share or comment on them may simply be trying to point out the surprising or spectacular aspect of the information, or even denounce a manipulative intention. In order to estimate the extent of the epistemic risks induced by fake news, it seems necessary to look at the attitudes of the public towards it and particularly at the credibility they attach to it.

2.1.3. The credibility of fake news

A lot of research has been done on the processes of credibility judgment, the degree of competence of different audiences and the possible influence of different variables (age, gender, level of education, socio-cultural background, etc.) on this process. It is impossible for us here to propose a synthesis of these works. We will limit ourselves to pointing out two observations that seem to emerge among young people: on the one hand, their tendency to favor criteria linked to the usefulness of the source and its ease of access and use (pragmatic judgements) over criteria linked to the estimation of credibility judgment and the reliability of the source (epistemic judgements); on the other hand, the fact that these epistemic judgments are based more on heuristic processing (surface-level, quick and intuitive evaluations) than on an analytical process involving reasoning based on the consideration of a plurality of criteria and a more thorough interaction with the source to be analyzed and its content (for a synthesis, see Sahut 2017).

The work specifically on the evaluation of fake news is sparse and very recent. In psychology, attention has focused on the role played by a specific heuristic: confirmation bias in the credibility of political fake news. Craig Harper and Thom Baguley's (2019) study of a sample of American liberals and conservatives, as well as English Brexit supporters and opponents, indicates that politically engaged individuals are more likely to believe (at least partially) stories that are consistent with their partisan beliefs. Similarly, they tend to doubt the credibility of truthful news stories that contradict their views. Conversely, a study by Gordon Pennycook and David Rand (2019) emphasizes that it is not ideological preference that determines the credibility of fake news but a cognitive variable. According to them, individuals who favor analytical reasoning processes (not heuristic, therefore) are more capable of discerning this type of disinformation.

Within the information sciences, we identified two research studies related to the credibility of fake news. One study surveyed 2,747 American adolescents between the ages of 11 and 18 to assess their ability to identify hoax websites (Metzger *et al.* 2015). The results showed that more than half of the youth surveyed reported believing - at

least partially - information from these sites. Older teens showed more distrust of these hoax sites; they were more aware of issues related to a possible lack of validity of online information and reported using more analytical strategies for assessing credibility.

The second study involved an audience of 63 American undergraduate students (Leeder 2019). Participants were asked to assess the credibility of a sample of articles, half of which were fake news, and to explain their approach. In the end, students correctly identified 64% of fake news and 60% of truthful news, indicating heterogeneity in mastery of this informational skill. Those who performed better spent more time assessing articles and examined the entire web page to judge the credibility of the information. Thus, the findings concur with Miriam Metzger *et al.* (2015) and Gordon Pennycook and David Rand (2019) regarding the importance of analytic process to identifying fake news.

To complete these quantitative studies on the informational skills of young people, we opted for a qualitative piece of research to collect their individual and collective take on fake news. It seemed essential to us to understand how teenagers express, in their own words, their perception of this informational phenomenon, what importance they afford to it and what meanings they give it. This comprehensive approach seemed to us to be more appropriate as fake news is the subject of social discourses likely to feed the views of teenagers.

In the context of information and communication science, research has highlighted the weight of young people's perceptions of the Internet (Cordier 2011) and Wikipedia (Sahut 2014). Often far from scholarly knowledge, these perceptions have an influence on information behavior. For example, the mostly negative academic reputation of Wikipedia modifies the perception that high school and university students have of the benefit/cost ratio linked to consulting this source. It introduces the notion of risk: the risk of being confronted with the "false" and the risk of being sanctioned by teachers hostile to the use of Wikipedia if this source is cited in school productions (Sahut 2014). We can therefore ask whether young people have been exposed to discourses of distrust of fake news and whether these have affected their epistemic trust in digital sources.

2.2 Methodological framework of the study

To collect the data, we conducted fourteen individual semi-directive interviews with young people aged 15 to 17 years old, enrolled in the ninth grade and in a general education high school during 2018. To encourage the interviewee to express himself as freely as possible, we developed an interview guide alternating between phases in

which s/he was questioned (directive phase) and phases in which s/he could express himself without being questioned (free expression phase), taking care to ask him/her questions that were sufficiently open-ended to avoid conditioning his/her response, in accordance with the recommendations of Alain Blanchet and Anne Gotman (2015). The questions asked to the fourteen young people in our sample aimed to determine their views and their information behavior related to fake news: Have they heard of it before? What definition and examples do they give? Do they feel exposed to it? Do they feel equipped to deal with it? How do they go about spotting it?

To limit the social desirability bias that such a subject is likely to generate, we guaranteed the anonymity of the young people interviewed and the absence of value judgments on their words. For the same reason, the interviews took place at their homes or by telephone and not in a school setting, which might influence their responses. Finally, we were inspired by a methodological reflection developed by (Vermersch 1994): we frequently asked young people to narrate examples relating to fake news taken from their personal experience. In this way, we expect the interviewee to draw on his or her episodic memory and not on his or her semantic memory, which limits the use of stereotypes and agreed-upon discourse that might conform to the interviewer's expectations. During the interview, we tried to adopt a benevolent attitude, both verbally (approval formulas) and physically (smiles, encouraging looks). Whenever appropriate, we rephrased the interviewee's comments to ensure that we had understood them correctly, reopen the discussion without asking new questions, or reassure the interviewee that we were listening.

After transcription, the comments collected were subject to a cross-cutting thematic analysis. This allowed us to compare the responses of the fourteen young people in our sample and to identify common traits and differences.

Name	Age	Education level	Duration of the interview	Location of the interview
Manuel	15 years old	Ninth grade	7'	At home
Ambre	15 years old	Ninth grade	19'	At home
Anna	15 years old	Ninth grade	15'	At home
José	16 years old	Ninth grade	10'	At home
Christian	15 years old	Tenth grade	15'	At home
Sophie	15 years old	Tenth grade	17'	At home
Yves	15 years old	Tenth grade	17'	By phone
Maco	15 years old	Tenth grade	36'	At home
Nassim	15 years old	Tenth grade	26'	By phone
Lisa	16 years old	Tenth grade	11'	By phone
Thibault	16 years old	Twelfth grade	20'	At home
David	17 years old	Twelfth grade	33'	At home
Sylviane	17 years old	Twelfth grade	19'	By phone
Iris	17 years old	Twelfth grade	17'	By phone

Table 2.1. Summary table of interviews

The very variable duration of the interviews already can be interpreted. It might of course reflect the personality of the respondents (chatty or, on the contrary, shy) but if we cross reference this with the content of their remarks, we note important differences in their degree of reflexivity. Some of them (Manuel, José, Lisa) had real difficulties in "putting into words" their informational experience, while others (Sophie, Sylviane, Iris) showed that they could hold a structured conversation on their practices and revealed a deep reflection on the issues related to fake news. We also asked young people about their use of digital social networks and we noticed strong disparities in their level of participation. Some, like Christian or Lisa, are not very present on these networks, while others use them assiduously.

	Snapchat	Instagram	Messenger	WhatsApp	Facebook	Twitter
Manuel	•	•	•		△	
Ambre		•		•		•
Anna	•	•		•		
José		•			△	
Christian					△	
Sophie	•	•				
Yves	•	•				•
Maco				(△)		
Nassim	•	•	•		△	
Lisa				(△)		
Thibault	•	•			△	•
David	•	(△)			△	
Sylviane	•		△			
Iris		•	•	•	(△)	•

Table 2.2. Use of social networks by the young people interviewed on

•: Active account
 (△): Account not very active
 △: Inactive account

2.3 Results of the study

We shall first present our respondents' views of fake news (understanding of the term, the intentions of those producing it) and the sources of knowledge of this phenomenon. Then, we shall report on the processes of identification of fake news and critical evaluation of the sources at work, as well as perceptions of the seriousness of this epistemic risk.

2.3.1. A heterogeneous understanding of the concept

The English expression fake news was known to some of the young French people interviewed. They give a definition close to the notion of disinformation, including the idea of a manipulative intention.

"Well, basically, it's information that's fake and that's made to make people believe it's true, so to trick people, essentially." (Anna)

"It's when it's a something fake. When it's not true. When it's a lie." (Christian)

Others are more hesitant and give more vague definitions and omit the intentional character inherent in the notion of fake news.

"I've heard that word before, on TV, I think. But then, I haven't really looked up in detail what it is." (David)

"Fake news? Yeah, I think, that sounds familiar... Yeah. Fake news? As in, fake stuff?" (Lisa)

When asked about examples they encountered in their daily lives, some of the young people interviewed mentioned one or two specific instances where they were aware of having been confronted with information that turned out to be false.

"XXX Tentacion is a rapper who died and there had been fake news circulating that he wasn't dead, that it wasn't true, that it was to promote his new album, when in fact he was really dead. That's when I fell into fake news." (Anna)

"Fake news tends to be about gossip and celebrities, more than anything else. After we won the Cup, they said that Nabilla and M'Bappé were together, and that really blew up." (Iris)

Rumors are thus considered fake news (8 mentions) whereas in the examples narrated, the deliberate intention to deceive – a characteristic feature of fake news – is not obvious¹. The notion of fake news is also associated with other information pollution such as advertisements (3 mentions), spam (3 mentions) and commercial scams (5 mentions):

"On social networks, it's mostly ads, spam, things that don't necessarily interest us. There can be scams like we see sometimes by email. Often, there are also things for dating sites. In general, that's it." (David)

The following was also considered to be fake news:

– "enticing links", qualified by young people as "clickbait" (9 mentions): "It's when there's something marked in the title but in the video, there's nothing like that. It's totally wrong, actually. It's 'clickbait'." (Jose);

– phishing or hacking (2 mentions): "Windows that open and say, 'You have 5 viruses on your computer: click on this link to solve the problem'." (Christian);

– the use of the term fake news for political rhetoric (2 mentions): "Trump who calls all information fake news when it doesn't suit him..." (Sylviane);

– political lies (one mention): "I remember that when Chernobyl happened, the authorities said that the radioactive cloud had not passed over France. They lied. To keep the population under control, I think." (Christian);

– urban legends (the case of the Momo Challenge is developed below) (one mention);

– trolling (one mention): "False polemics on events like the attacks." (Nassim);

– media exaggeration (one mention): "When they say a bank was robbed when it was a grocery store." (Nassim).

For teenagers, the term fake news seems both polysemous and all-encompassing. It is used to designate informational risks related to "fakery" and deception. There is some confusion between the different types of digital risks. Sometimes, the notion of fake news is fused with other concepts which it only bears a vague relation to.

1. Rumor can be defined as "the dissemination of unverified, functionally relevant information statements that appear in contexts of ambiguity, danger, or potential threat and help manage risk and understanding." (Di Fonzo, Bordia 2006:23). Not all rumors are fake news. According to the definition we have adopted, only those that turn out to be false, are deliberately launched and widely disseminated can be considered as such.

2.3.2. A blurred perception of the goals of fake news

The teenagers interviewed do not always identify the motivations of fake news distributors, nor their possible sociological identity. And when they do, it is mercantile objectives that are put forward (9 mentions). This idea is linked to experiences on social networks, notably with "clickbait". The fact that some information has very catchy headlines, intended to capture their attention and provoke an action on their part, was highlighted (4 mentions). The idea of virality associated with a quest for an audience is apparent in certain comments. The notions of "buzz" and popularity linked to the number of "views", "likes" and "retweets" were mentioned. However, the advertising mechanisms based on the activation of hypertext links (click economy), a real financial godsend for the creators of fake news, are hardly mentioned. This ignorance leads them to imagine the economic processes at work:

"I think people who make fake news are looking for buzz on Twitter to be popular. Getting "likes" and having their posts retweeted because it makes them money. I don't know how but I know that when you retweet, they make money." (Yves)

Sylviane is an exception: her reasoning leads her to make the link between audience research, exposure to advertising and economic revenues:

"It's known as 'clickbait'... I don't have a precise explanation, but I think they probably earn money every time people visit their site, through ads or whatever. So, their goal is to have as many people as possible visiting their site. No one has explained it to me clearly, but that seems logical enough." (Sylviane)

The political or ideological motivations of fake news (4 mentions) are clearly less perceived than the mercantile motivations, although they are abundantly developed in the media, political and educational discourses on the subject. The idea of influence and psychological manipulation is occasionally mentioned but without any connection to politics.

"It influences a lot of people. It's a mass influence." (Maco)

"A young person can go on Facebook more than ten times in a day, meaning that he might come across the same information several times. So, it will get into his head. He might click on it, look at what it is. And if he's not careful, he may come across false information. It might lead him astray." (David)

2.3.3. The diversity of sources of knowledge about fake news

Fake news becomes known through the browsing experience and/or through preventive speeches. Some teenagers admit to having been tricked and having clicked on sensationalist headlines (6 mentions):

"Sometimes I click on it and read because there tends to be questions asked in the title. You have to click on it to see the whole article and get the answer." (Nassim)

"I've probably been tricked before I was told to watch out for fake news." (Thibault)

Some of them were also exposed to preventive speeches. A minority (4 mentions) reported training on the subject in a school setting, either in history and geography or economic and social sciences classes, or by a teacher in the library. The reception of these pedagogical interventions was very variable. Anna recalls a real awareness that took place during her seventh-grade year: "Before the course [run by the librarian] I couldn't conceive that there were false things on the Internet and since then, I told myself that everything that was said there was not necessarily true." Iris, for her part, puts the contribution of the intervention that took place in the context of history and geography into perspective: "We learned some interesting things but afterwards... Yep... When I left the course, I didn't say to myself 'this is going to change my life'. Maybe it wasn't useful, but it was interesting. It was about prevention, but we already know that.". Here we can discern that the perceived usefulness of preventive discourse differs depending on the respondent's sense of knowledge and command of this informational issue.

Awareness of the phenomenon of fake news can also take place in a non-formal setting. Some of the young people interviewed said that they had heard warnings from their parents about the unreliability of the information available on the Internet:

"Parents and the people around us also tell us that we have to be careful with what we see (...) Well, my parents didn't take an hour to explain it to me but, sometimes, they tell me little things like that... When I show them things, they say, 'Well, be careful, that site looks fake to me.' (Sophie)

"My father tells me, 'Be careful, it's fake news'. He tells me, 'Be careful, with social networks and all that, you always have to check'." (Iris)

We thus find the role of the family environment in the process of digital risk prevention (Cordier 2015). However, on this topic specifically, parental warnings do not seem to be widespread since they are mentioned by less than half of the respondents (6 mentions). In addition, several young people in our sample referred to the disinformation risk awareness conducted by YouTubers (5 mentions):

"There are YouTubers who warn against fake accounts of theirs. Cyprien, for example." (Thibault)

"On YouTube, some well-known YouTubers know that people can misappropriate what they say. So, they sometimes make videos to warn people. They do prevention. I remember Cyprien did something like that..." (Maco)

On this subject, Ambre talks about a particular experience. At first, she was alerted through a video by Sora, a YouTuber specializing in gaming, about the dangers linked to Momo, a harmful character who was haunting the web: "Sora said that if you wrote a message to Momo, he could collect data on you and blackmail you, push you to commit suicide or do things, you know". Ambre then set out to find more information on the subject. On WhatsApp, she found a reproduced conversation between an Internet user and Momo, which she interpreted as proof of the existence of this character. Sometime later, she said she learned that Momo was, in her words, "fake news"². And in this case, the preventive speech of the YouTuber amplified its spread. We also discern that Ambre implements a real strategy to verify the information on the subject by resorting to a plurality of sources.

Finally, it should be noted that some respondents mentioned other sources that fuel representations and knowledge of fake news: television (3 mentions), Twitter (one mention), discussion forums (one mention) and even a series watched on streaming, Quantico, which features the political use of fake news (one mention). Fact-checking sites were mentioned only by Iris. None of the respondents mentioned fake news as a topic of conversation among peers.

2. Momo is more like an urban legend and a hoax whose origin has not yet been determined, to our knowledge at least. Saferinternet.at (2019). *Achtung HOAX! Gruselige Nachrichten von Momo* [Online]. Available at: <https://www.saferinternet.at/news-detail/achtung-hoax-gruselige-nachrichten-auf-whatsapp-von-momo/> [Accessed 17 February 2019].

2.3.4 Identifying fake news: heuristic processing and analytical strategies

Several teenagers interviewed mentioned the ways in which they recognize fake news and the means they use to verify its credibility. Judgmental heuristic processing associated with a sense of distrust were mentioned. For Iris, it is erroneous spelling that constitutes a warning signal: "When there is a site where there are spelling mistakes, I am a bit suspicious". Anna mentions another type of heuristic processing:

"Actually, it's strange when something might be fake news, when you open the link, there's something weird. Maybe it's the way it's presented. For example, when there are tabs on the side with small writing, with a certain color, it can be a bit odd... it alerts me a little bit."
(Anna)

Anna's comments give an account of her browsing experiences which led her to identify a layout, along with graphic, chromatic and typographic choices that she considers typical of fake news. Her epistemic judgment, which is based on the aesthetics of the site and not on its informational content, bears witness to the implementation of a heuristic process based on visual appearance (Hillgoss and Rieh, 2008). Similarly, the presence of "headlines" (David), "catchy" (José) or "hyper-catchy" (Sylvaine) headlines are mentioned as a potential flag for fake news.

On digital social networks, some rely on comments as credibility cues (2 mentions):

"On Twitter, at first, I kind of believe it but then I go and look at the comments. And I see that often, there are lots of people who mark "fake news", that it's false and everything. So, then I don't believe it anymore. I mean, if there's only one message that says it, I'll still believe it, but when I see that there are many..." (Yves).

A social heuristic process known as recommendation (Metzger *et al.* 2010) that is highlighted here: Yves considers the judgments of others to construct his own evaluation.

On Twitter specifically, two respondents refer to another credibility index, account certification, which they say is supposed to protect them from fake news:

"I'm looking at the blue thing. It says it's official, so it's safe. [Meaning?] Well, that means it's reliable." (Ambre)

"In the certified accounts, I have confidence. Because I know that if there are false things, well, someone will... they'll get a fine, or they'll shut them down. Certified accounts, it's sure that it's fair, you know... But if it's not certified accounts, I'm suspicious. Because, sometimes, the information is weird. And, on top of that, I see that it's not certified information. So that makes me even more suspicious." (Yves)

What Ambre and Yves refer to can be described as an expertise heuristic process (Sahut 2017). They are indeed looking for a single clue reassuring them about the reliability of the source and thus the validity of the information. However, the blue certification badge on Twitter is above all intended to fight against account impersonation. Granted on request, it only guarantees the identity of the source and not the truth value of the information, as Twitter is not a validation authority. The certification of the account is withdrawn in specific cases, such as incitement to hatred or harassment, but not in case of dissemination of fake news³. For Yves, the lack of knowledge about this mechanism causes him to resort to his imagination and leads him to erroneous beliefs about Twitter's editorial model.

We also identified analytical approaches to critically evaluating sources that differ from the heuristic processing mentioned above. First, teenagers reported more sophisticated strategies that may involve extensive content analysis or consideration of cues that indicate the reliability of the source (4 mentions):

"I try to sort through what I'm looking for. I go and look at some of the sites that are out there. I read the content and try to get an idea. I get suspicious if I see things that don't make sense." (Maco)

"If I do a Google search, I look carefully at the results. I try to see who the publisher is, as my ES teacher explained to me. And for photos, I look at the date, like my history and geography teacher told me." (Christian)

Second, most of the young people interviewed said that they verify information they are not sure about (8 mentions). Some report corroborating practices through online research:

3. *FAQ sur les comptes certifiés* [Online]. Twitter. Available at: <https://help.twitter.com/fr/managing-your-account/twitter-verified-accounts> [Accessed 20 September 2019].

"I'll check if other sites are talking about it and which sites are talking about it. If it's people sites or Le Monde." (Sophie)

Others say they check the information they doubt with adults around them whom they consider competent, most often their parents (4 mentions):

"Depending on what I want to check, I choose the person who seems most competent. It can be my parents, my teachers, a specialist in the subject..." (Christian)

"The time I read that the European Cup was going to be replayed because the referee did not do his job properly, I thought to myself: it's a strange thing for them to say. But I half believed it. I went to ask my parents. They confirmed that it was wrong." (Sophie)

Ultimately, they allude to a reassuring informational environment designed to protect them from epistemic informational risks.

2.3.5. A remote and controlled phenomenon?

The teenagers interviewed have different understandings of the importance of fake news and the associated stakes. Several of them show an indifference towards this phenomenon: either they don't feel concerned: "I don't really care. I've hardly ever heard of it. It doesn't particularly concern me" (Manuel), or they feel able to avoid the risks by controlling their information environment: "I'm not too exposed. I'm very careful. So..." (Christian).

Almost all of them say they are very careful about the sources they use, only going to "known and safe" (2 mentions), "trustworthy" (3 mentions) or "hyper reliable" (one mention) "official" (3 mentions), "classic" (one mention), "referenced" (one mention), "secure" (one mention), "specialized" (one mention), to avoid being "scammed" (3 mentions), "spied on" (one mention), or "infected" (one mention). When asked to cite sources they consider reliable, they mention ONISEP (one mention), Parcours Sup (one mention), Le Monde (6 mentions), France Inter (2 mentions), BFM TV (3 mentions), L'Équipe (2 mentions), France 2 and France 3 (2 mentions), Arte (one mention), i-télé (2 mentions), and Usbek & Rica (one mention). Half of the young people interviewed also said that they get their news from a cell phone application (UpDay, News, Discover) which, in their view, protects them from disinformation, as the information comes from recognized media.

Only a few of the teenagers admitted to feeling particularly concerned about fake news, especially when they felt that there was a strong issue at stake (6 mentions), in other words, when the information was about a subject related to events deemed important, such as attacks, or which directly concerned them (high school reform, for example): "If it talks about something in France or which is going to change things, or if it talks about, I don't know, the baccalaureate, the new reforms, yes, I'm really going to want to know if it's true or false" (Sophie). However, the societal and political stakes of fake news were hardly mentioned. Most of the young people interviewed do not seem to be aware of the risks that disinformation could pose for democracy.

2.4. Discussion of the results and reflections on media and information literacy

At the end of this exploratory study, we can see a discrepancy between the media, political and educational discourses on fake news and the views of teenagers. The former emphasize the danger that fake news poses to democracy, while for the majority of the young people interviewed, it represents a limited, controlled and, for some, even non-existent risk. This discrepancy is partly due to differences in perception of the object of fake news, the same term being used to designate different realities.

Our study shows that, with some exceptions, teenagers' knowledge of this information phenomenon remains superficial and imprecise with respect to the academic definition we have proposed⁴. The term fake news is associated with a heterogeneous set of digital risks: epistemic risks linked to disinformation but also technical risks (viruses, hacking), financial scams and unwanted exposure to advertising. The comprehensive approach adopted thus allows us to bring to light a mixture of problems encountered by teenagers during their digital practices and a work of the imagination that attempts to understand, or even explain, these problems. At the same time, this observation leads us to emphasize the interest of establishing a conceptual basis for the teaching of digital and information literacy (Serres, 2007). It seems to us that students' understanding of a global typology of digital risks – including issues related to self-exposure on digital social networks and cyberstalking – could foster a more precise identification of the nature of the various problems and allow for a more lucid look at the appropriate means of protecting oneself. In the same way, the current emphasis on fake news should not make us forget the interest of

4. Nevertheless, it should be remembered that the academic sphere is itself confronted with definitional problems on this subject. But some of the young people interviewed give much broader definitions than those circulating in scientific circles.

raising awareness about other types of disinformation (propaganda, political and/or media lies, etc.) and misinformation.

We found that the motivations of the creators of fake news were largely ignored by our respondents. The economic model at work, based on capturing the attention of the Internet user, exposure to advertising and the economy of the click, is sometimes suspected but more often than not superficially understood. This observation argues for media and information literacy that exposes the economic logics of information production in digital industries, often invisible to the user (Jehel and Saemmer 2017). The lack of in-depth knowledge of the possible ideological and political effects of disinformation also challenges the intended goals and implementation modalities of MIL. On the one hand, in the context of documentary communication, the reading and analysis of a document is strongly influenced by the reader's knowledge of the information producer, its expertise, and its communicative intentions (Tricot *et al.* 2016). In this sense, the critical reader is one who identifies the effects sought by the source, particularly from an ideological point of view, and knows how to distance themselves from it. On the other hand, even if the question of the possible effects of fake news – and beyond that, of disinformation – on the public is far from being clear-cut, addressing this problem with students could encourage reflexivity on a civic issue frequently on the political and media agenda⁵.

The perception of the phenomenon is frequently fed by warning speeches emanating from institutional cognitive authorities such as parents and teachers, or from new incarnations of authority such as YouTubers for teenagers. But the concept of fake news is above all reinterpreted and takes on meaning from the informational experience of each individual. Thus, if the epistemic risks seem minor, it is because in most cases, the phenomenon has been encountered in the sphere of leisure activities where the effects of the "fake" may seem "annoying" but not really harmful. When it concerns fields where the informational stakes are perceived as more important, the concern becomes stronger.

The perception of epistemic risk is also mitigated by the feeling that teenagers have of controlling their informational universe and thus considerably reducing the uncertainty resulting from the new media landscape. Even if information behavior via cell phone applications seem, on the face of it, to keep some of them away from fake news, this juvenile comment must be put at a distance. On the one hand, we know that

5. Recall, for example, that the law on combating false information has been hotly debated. See for example: Couronne, V. (2018). Loi anti-fake news : une fausse bonne idée [Online]. INA : *La Revue des médias*. Available at: <https://larevuedesmedias.ina.fr/loi-anti-fake-news-une-fausse-bonne-idee> [Accessed 05 January 2021].

young people tend to overestimate their informational skills, especially those who are the most lacking (Flanagin and Metzger 2010; Gross and Latham 2012). On the other hand, it is known that there can be a third-person effect in persuasive communication: a person exposed to persuasive messages generally views them as having a stronger effect on others than on him or herself (Davidson 1983). It turns out that individuals generally believe that fake news has a stronger effect on others than on themselves and tend to underestimate the actual epistemic risks they may be exposed to (Jang and Kim 2018). Moreover, the teenagers interviewed may have encountered forms of disinformation without being aware of it.

Beyond the sole question of fake news, this study allows us an insight into views of epistemic trust as well as the evaluative practices implemented. The teenagers interviewed repeatedly assured us that they refer to "official" and "reliable" sources, to traditional media (from Le Monde to BFMTV) that are supposed to guarantee the accuracy of the information. These are presented as editorial entities whose credibility is self-evident and which are considered reassuring in a context of informational uncertainty. However, there is a virtual absence of arguments on the basis of this epistemic trust. Thus, within the framework of media and information literacy, which aims at formulating more refined and critical assessments, one of the objectives could be to bring pupils or students to distinguish more clearly between different types of institutional cognitive authorities: political and administrative institutions, media institutions, knowledge institutions linked to research and education and, above all, to identify both the epistemic norms that govern them and the factors (economic, material, temporal, etc.) that mean that these norms are not always respected.

Still in the area of epistemic judgments, our respondents reported judgment heuristic processing (visual or aesthetic, social, expertise) that, according to them, favored the identification of fake news, but they also reported analytical strategies (analysis of the plausibility of the content, the identity and expertise of the source, corroboration) that testify to efforts made to evaluate the truth value of the information. Our study based on participants' statements does not allow us to know the respective frequency of these two modes of evaluation. Recall here that the literature on the subject indicates that the use of heuristic processing is more frequent than the use of analytic strategies (Sahut, 2017). Yet, on this point, studies are convergent: analytic-type approaches are more effective in identifying fake news (Metzger *et al.* 2015; Pennycook and Rand 2019; Leeder 2019). But the costs of learning and implementing these approaches remain higher than those associated with acquiring heuristic processing, spontaneous and intuitive operating modes. Cognizant that learning to critically evaluate information is complex and requires a pedagogical progression in line with teenagers' cognitive development (Metzger *et al.* 2015), the following questions can be asked: is it possible to envisage, in the framework of MIL,

to aim, in the first instance – during the first years of secondary school, for example – at the acquisition of heuristic processing (expertise heuristics or even visual heuristics insofar as fake news can present, as respondents have underlined, similar forms) in order to, in the second instance, show the limits of these heuristics and to teach real analytical strategies? Or should we teach an analytical evaluation process first, the risk being that this approach is out of reach for the youngest?

Conclusion

In conclusion, we will point out the limits of this study, which present as many potential avenues for future research. This study is primarily exploratory. It only involved fourteen teenagers and we cannot claim here that the sample is representative of the entire age group. For example, we did not interview teenagers who were enrolled in vocational high schools or those who had dropped out of school. In spite of this, the interviews conducted show strong differences in the understanding of the phenomenon of fake news and, more broadly, in the reflexivity with regard to information behaviors. Overall, it was the older teenagers who showed the most reflexivity in their responses, which supports the idea of the importance of the age variable in information evaluation (Metzger *et al.* 2015; Sahut and Mothe 2019).

To go further, it seems to us that two types of research can extend our work. First, quantitative research, which would allow us to take into consideration the role of the socio-cultural environment. Indeed, quantitative surveys on juvenile uses of digital technology highlight the intragenerational fault lines brought about by social positions (Hargittai and Hinnant 2008; Merckle and October 2012; Cottier *et al.* 2016). On the topic of disinformation specifically, a questionnaire survey could probe the relationships between teenagers' belonging to a socio-cultural background on the one hand and knowledge and perceptions of disinformation phenomena as well as the feeling of control over the information environment on the other.

The theme of fake news and more broadly that of disinformation also lends itself to qualitative approaches. As is evident in our study, but also in many others, young people frequently obtain information via their smartphones. They are therefore confronted with a particular form of “screen writing” (Souchier 1996) which implies a specific relationship to information. Until now, studies on the evaluation of credibility by young people have mainly focused on information displayed on the computer screen. It would therefore seem relevant to study the relationship between the specificities of reading on a smartphone and the degree of attention paid to credibility judgment, the ways in which fake news is identified, and the indices on which epistemic judgments are based on this type of screen.

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