

Guidelines on

Media & Information Literacy for Schools

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(editors)



Welcome to SPOTTED Project
(School Policies to Tackle and Detect Fake News /
School Policies to Detect and Stop Disinformation)

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School Policies to Detect and Stop Disinformation)

*Guide for the
Media and information literacy
of school children*

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1

DISINFORMATION IN TODAY'S WORLD: An overview

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Introduction

Disinformation has always existed throughout history, through different channels, media and formats, but the level of ideological polarization that we have today is a consequence, above all, of social platforms, which have become means of communication in themselves.

In November 2018, the founder of Facebook, Mark Zuckerberg, explained his main strategy to fight disinformation and fake news, highlighting a key question: "What content should be distributed and what should be blocked?" (Zuckerberg, 2018). This question is worth mentioning because it sheds light on the type of knowledge and level of commitment that Facebook has over information flow. In that regard, Zuckerberg explained that Facebook is aware that "borderline content" - referring to content that approaches the limits of prohibited content - is the content that gets the highest user engagement and is closely related to disinformation, fake news, hate speech and polarization. Therefore, plat-

form policies that limit the dissemination or not of borderline content are key in the digital ecosystem.

Thus, a key question arises: How can one fight against information disorders when users (even the ones who want to banish this content from their online communities) are helping to spread it? The role of society and journalists is key in this process. Facebook has been repeatedly connected and linked to disinformation and political influence, even before the 2016 elections but also after and more intensely because, as Madrigal (2017) pointed out, the things we thought we understood have had to be reinterpreted in light of the surprising vic-



“What content should be distributed and what should be blocked?”

(Zuckerberg, 2018)



tory of Donald Trump as well as the ongoing questions about the role that disinformation played in his election. Twitter has launched numerous initiatives to clean up its image and provide a better environment for spreading reliable information. At the beginning of February 2020, Twitter announced that as of March 5, tweets with manipulated content or with a clear intention to deceive the public would be penalized. In fact, Twitter permanently suspended the official account of Donald Trump (@realDonaldTrump) "due to the risk of further incitement of violence" (Twitter, 2021) and due to the large amount of misleading information it disseminated and the personal account of Republican representative Marjorie Taylor Greene of Georgia for having repeatedly violated the platform's disinformation policies on COVID-19. Apparently, as explained by Twitter, this decision was made after she committed her fifth strike.

Disinformation endangers democratic processes and policy values and is a general problem for Western societies. However, this issue is accentuated when disinformation also compromises other sectors, beyond the purely political, such as health, science, education or economics, by giving priority to emotions over facts and hard facts.

In the field of health, for example, it has been detected that patients and users increasingly seek more information on the internet about health-related issues. This practice is popularly known as the "Dr. Goo-

gle phenomenon", and although, in itself, it is not a dangerous exercise, what is worrisome is the quality of the information. Thus, for example, let us recall the case of the former influencer and "wellness guru" Belle Gibson, who rose to fame after claiming that she had been cured of a terminal cancer by rejecting conventional medicine. According to Gibson, a healthy diet and lifestyle had cured her. Her story was documented in a blog and on social networks. Later, Belle Gibson published a successful book and an app, containing lifestyle tips and healthy recipes. However, in 2015, it was discovered that Gibson acted fraudulently: she never had cancer and never donated the proceeds of her app to a charity, as she had promised.

Disinformation and conspiracy theories also question basic scientific principles. In this field, it is worth noting the work and influence that the COVID deniers and, more generally, the anti-vaxxers have in many sectors of society, threatening democratic systems in various ways. The most recent example is that of Novak Djokovic, who has become a symbol for the anti-vaccine movement and has led the confrontation between governments and citizens.

Education, as an essential pillar of advanced democracies, is also suffering a process of deterioration, as a consequence, above all, of the rise of conspiracy theories, which serve as instruments to narrate an alternative vision - and totally lacking evidence - of history or of society. Thus, for example, it



Therefore, in this new digital era, characterized by information disorders, trust and truth are now more relevant than ever to fight against deception and to take care of the democratic health of Western societies.



is worth noting the large number of citizens all over the world who believe that the Earth is flat. No one knows how many Flat-Earthers there are in general, but it is known that these believers founded, in 1956, their own institution, the Flat Earth Society, which, in its beginnings, had more than 3,500 members.

Finally, hoaxes and fake or inaccurate news also affect, especially worrisome, the economy. In 2019, for example, Boris Johnson announced that Brexit would bring so much optimism and joy to the country that there would be a new *baby boom* and that this phenomenon would bring benefits similar to those following the 2012 Olympic Games. According to the Office for National Statistics, across the United Kingdom, the number of babies born in 2013 was significantly lower than the number born in 2012; therefore, there was no Olympic baby boom.

At this point, it is clear that trust and truth have become prized goods in democratic societies. Bok (1978) already suggested that “whatever matters to human beings, trust is the atmosphere in which it thrives” (p. 31). In the same line of thought, Macleod (2015) argues that trust is necessary in any civilization because it has “enormous instrumental value and [...] intrinsic value”; in turn, MacKenzie and Bhatt (2020) argue that lying is harmful for those who have legitimate claims to know the facts, for democracy, for anyone who values truth and honesty. Therefore, in this new digital era, characterized by information disorders, trust and truth are now more relevant than ever to fight against deception and to take care of the democratic health of Western societies.



“Disinformation and conspiracy theories also question basic scientific principles”

1. As new as old phenomenon: *nihil novum sub sole?*

There is ample consensus, academic, scientific and historiographical, that disinformation narratives of one nature or another, that is, lies, fake news, hoaxes, etc., which are the protagonists of much of the current media and sociopolitical debates, have been present throughout the history of humanity.

As Lagarde and Hudgins (2018) say, in particular, fake news is a grand human tradition, and far from being a new phenomenon of recent appearance, we can find notable examples in which fake news was also decisive for the historical evolution of countries, continents and the world (McIntyre, 2018; O'Connor and Weatherall, 2019).

In Rome, we can see multiple examples. Paradigmatic is the case of the discrediting disinformation campaign launched by the first Roman emperor, Octavian Augustus,

against his rival Marco Antonio. Among other trickery, he invented and disseminated a false testament that completely destroyed Antonio's reputation in the public eye (Correas and Kenneally, 2019; Marqués González, 2019). However, we could go even further back in history.

Nielsen (2017), an archeologist at the University of Manchester, revealed what may be the first major case of lies of a purely propaganda nature, at least as it seems to us. In front of the great memorials of the



“fake news is a grand human tradition, and far from being a new phenomenon of recent appearance (...)”

supposed warlike skills and heroic victories of the long-lived and fertile Egyptian pharaoh Ramses II the Great, the archeological evidence reveals a very different monarch profile. It seems that his abilities were far superior, not on the battlefield, but in re-writing memorials with his name that were actually dedicated to others.

Similar to these examples of antiquity, innumerable cases could also be mentioned throughout the Middle Ages. Buonanno

(2019) even describes the European Middle Ages as the authentic civilization of the fake. Let us simply think of the massive marketing of (fake) relics throughout Europe, as described by Bocaccio in his *Decamerón*, or closer to our time portrayed by Umberto Eco (2000) in his exquisite novel *Baudolino*. Eco insists again and again on the power of fables to metamorphose into reality if people, a considerable number of people, believe it. Sometimes believing means creating, Buonanno (2019) would say.

The Modern and Contemporary Ages will not be free from lies as “violent creators of History”, in the words of Buonanno (2019). For the first great figure of modern political thought, Machiavelli, the lie will not be a trivial thing for political practice but rather the opposite (Villanueva, 2021). The Tuscan philosopher’s words will take the floor one regime after another, from European absolutism to the American Revolution (Castronovo, 2014; Hook, 2017; Unger, 2011) or the French Revolution (Correas and Kenneally, 2019), and of course Napoleon, that “great liar,” in the words of Cosseron (2002).

Little by little, the twentieth century will arrive, a century largely devastated by its extensive and intense cycles of war and its ideological frenzy, to use the terms of Conquest (2001). The century begins, it can be said, with a war, which to a large extent was fabricated by William R. Hearst, a champion of journalistic sensationalism, between the United States and Spain around Cuban independence, serving as a prime example of the amalgam among politics, war, (dis)information and lies (Correas and Kenneally, 2019). Although not in vain, in a war, the truth has always been the first of the victims, as said by Aeschylus.

In his classic book, Brown (1963) mentions blatant lies as the fourth of the traditional

political propaganda techniques. The various propaganda processes of the twentieth century that are so profusely analyzed are found in the collective volume of Auerbach and Castronovo (2013), or at the time Pizarroso Quintero (1993), which are all filled with a considerable amount of lies and fake news.

Confining the use of lies to the purely journalistic sphere, what could be called *fake journalism* exists and is recognized as such since the 19th century, as stated by Gelfert (2018). An example is the already legendary case of the *news* series appearing in the New York newspaper *The Sun* from August 25, 1835, which *reported* on the existence of Selenites, that is, inhabitants of the Moon, sighted through a supposedly powerful telescope. This set of stories will be for some the first fake news in history *stricto sensu* (Salas Abad, 2019).

In short, the use of lies and fake news and its impact on the future of humanity, including journalism, has been a constant throughout the ages. Therefore, it seems indisputable that *nihil novum sub sole* (there is nothing new under the sun). However, there is also consensus in relation to the very different nature that this phenomenon has taken in the present historical moment. This is due, above any other consideration, to the



massive digitization in the daily lives of the individuals who make up contemporary societies. Technology, predominantly digital, has clearly marked a before and after in the presence and role of lies, fake news, hoaxes and other disinformation artifacts in the contemporary world (Jacomella, 2017; Williams, 2021). In this sense, Levitin (2017, p. Xx) states the following:

“Misinformation has been a fixture of human life for thousands of years and was documented in biblical times and classical

Greece. The unique problem we face today is that misinformation has proliferated and lies can be weaponized to produce social and political ends we would otherwise be safe guard against”.

Floridi (2014), from the Oxford Internet Institute, goes further. He says that contemporary digital technologies have even left behind history itself as a concept. Just as the absence of any type of information and communications technologies (ICT) marked

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prehistory and that history itself was “synonymous with the information age”, the current digital and algorithmic era is described by the author as *hyperhistory*. This is a new human macroperiod in which ICTs already work autonomously and in which our well-being has ceased to merely be connected with them but to depend directly and completely on them. We would be becoming what Lassalle (2019) calls an assisted humanity, with an equally assisted freedom that anchors us to

a perpetual minority with respect to machines, living an *onlife* life immersed in an *infosphere* largely independent of the human being itself (Floridi, 2014).

Under this conceptual framework, it is possible to analyze the factors that make it possible to speak of a *hyperhistorical* period in terms of disinformation and *fake news*. Thus, the main differences that have led to mass digitalization in the rearming of disinformation narratives can summarized in the following five factors.





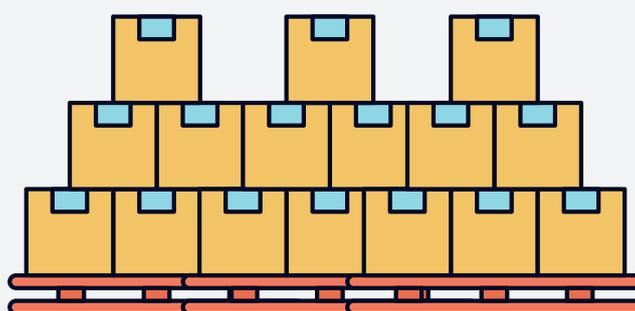
1. Ease of production: Currently, fabricating fake news, spurious content with the appearance of news or a simple disinformation meme, is surprisingly easy. Accessibility to the tools to be able to do this is universal, both in term of the economic costs involved, many of them being free, and for the ease of use, also removing the learning barrier. Let us think of the case of an image, a photograph of some person. To create a portrait of a nonexistent person, for example, until recently, one had to have considerable photographic, production and postproduction skills. Then, with the introduction of software *specifically* for this purpose (Adobe Photoshop, among others), production democratized quite a bit, but a budget was still required to acquire the program, and

there was still a learning curve to apply the software at a very basic level. Today, there are *apps* that anyone can install on their cell phone to make fake portraits and distribute them, at zero (monetary) cost, and the apps are completely intuitive. However, an *app* is not even needed. We could go to a URL (<https://thispersondoesnotexist.com/>, for example) that automatically renders portraits of people who do not exist, thanks to the aggregated data from an infinite bank of photographs that users provide to networks daily. Beyond photos, there are free platforms to fabricate fake content that looks like real news, with a joking sort of tone that is not always clear, proliferating throughout the network (<http://clonezone.link/>, etc.).



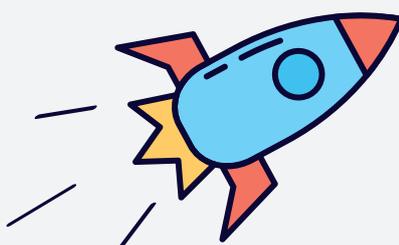
2. Quantity: In quantitative terms, the presence of disinformation in the public sphere currently is unmatched by any other period in the past. Thanks to technologies such as *machine learning*, *big data*, *bots*, artificial intelligence, etc., a conversation is due regarding the real weapons of mass disinformation or, in the words of O'Neil (2017),

weapons of mathematical destruction. As Ferraris (2019) points out, the quantitative becomes qualitative, and the exponential quantity of a phenomenon transforms its quality, its own nature. Let us also think about the fact that with *bots*, for example, human behavior is no longer required for this exponential disinformation emergence.



3. Speed of propagation: The speed with which a hoax or fake news spreads today through networks is absolutely incomparable with how it did so previously. In addition, it seems to spread much faster than real news. In a recent study, Vosoughi, Roy and Aral (2018) showed that compared with that for true news, the retweet rate for fake news was 70% higher. This could be due to several reasons. First, fake news tends to be more novel, unprecedented and surprising, and logic suggests that people

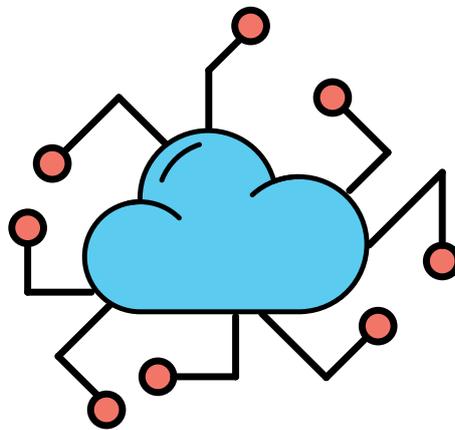
are more likely to share new information. Likewise, these news items tend to inspire more intense emotions (fear, disgust, and surprise), which increases their probability of becoming *viral*. The authors also demonstrated another interesting fact: *bots* accelerated the dissemination of news, certainly, but true and fake alike. This implies that the human factor carries significant weight in the circulation of most fake news. In this sense, it seems that the role played by the set of human cognitive biases is decisive





(Matute, 2018). Some biases are powered, on the other hand, by social networks, digital platforms, or devices through ongoing notifications, which vertiginously provide a continuous flow of fragmented and decontextualized content, all of which ends up firmly anchoring what Levitin (2019) calls *the breaking news way of thinking*, banishing that other *scientific research way of thinking* that should be guiding our decisions and that enables us to determine, among other things, the authenticity of the messages we are receiving. It is this speed of propagation, together with this continuous flow, that grants any disinformation artifact the enormous potential to modify collective behaviors and exert social influence with astonishing, unprecedented speed.

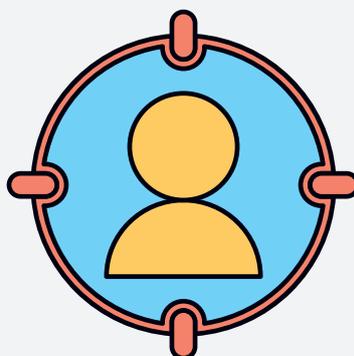
4. Ubiquity: Related to this speed of expansion, with ubiquity, at a given moment, fake news is capable of becoming a certain disinformation narrative. Digital hyperconnectivity, greatly aided by the democratization of access to all types of devices connected to the network, has eliminated borders and distances, erasing geography as a condition for implementing disinformation campaigns. Whether spontaneously or orchestrated, a hoax can materialize and reach all corners of the planet simultaneously in near real-time. Importantly, this can occur at truly low costs economically and resource-wise.



5. Intentionality: Behind each disinformation artifact making its way through the network, there is someone who has deliberately set it in motion. These individuals have done so with certain objectives, never randomly or on a whim (Jacomella, 2017). That is, there is always clear intent to benefit and/or harm someone (Baggini, 2018). Post-truth, McIntyre (2018) says, always implies the intentional subordination of truth to political interests. Thus, asking ourselves

about the intentionality behind *fake news*, we can at least suspect who or what may be behind it. That is, to wonder *cui bono?* (who ultimately benefits?) is what Baggini urges of us (2018).

Importantly, the vast majority of *fake news* is not created by individuals but by all manner of organizations, seeking to misinform to cause the greatest possible harm to the reputation or credibility of a natural or legal



person or to some social or political entity or group (Alandete, 2019). Disinformation today is an industrial process directed from the top down, controlled by algorithms that, to make matters worse, are protected by intellectual laws.

The camouflage of the intentionality and origin of disinformation actions, especially in the orbit of political propaganda in general, and war in particular, has also been a constant in history. The father of public relations, Edward Bernays, said almost a century ago that all propaganda is the “executive arm of the invisible government”

(Bernays, 2008). Specifically, there is black and gray propaganda (Pizarroso Quintero, 1993), with the former characterized by hiding (impersonating) the true sender and the latter characterized by the source or issuing agents remaining unknown. Let us think of the recurring “fake flag” actions, those that are executed from a certain side or faction in such a way that the authorship is attributed to the opposing side. In any case, in the past, it was not as difficult to trace the origin and track the traceability of a disinformation campaign as it is today. In the current technological ecosystem, the intervening agents are much better masked.



Disinformation today is an industrial process directed from the top down, controlled by algorithms that, to make matters worse, are protected by intellectual laws

In conclusion, we are immersed in a long-standing disinformation landscape. However, with its own and differential characteristics, current digital technologies give it a destructive capacity unparalleled in the history of humanity. It is fair to recognize, however, that not all the blame lies with technology. As stated by McIntyre (2018), among others, there is a breeding ground for the current information disorder: postmodernism, the clear intellectual “godfather” of this post-truth era. The post-truth is nothing more than a caricature of the postmodern, as Ferraris (2019) says. Thus, he postulates that objectivity

does not exist, nor do facts, but only interpretations, will end up rewarding everyone with *always being right*, or at least a little bit, a ‘reason’, yes, conditioned by one’s own feelings, emotions and beliefs, to all of which the objective facts will be irretrievably subordinated, something that will be dramatic in many areas of life and that can affect health, the economy, and especially democratic systems of coexistence, as is the case at hand, and that we will revisit later. We move on with a discussion of the conceptual framework of this guide.

2. Clarifying the conceptual framework

Information disorder is a phenomenon that includes fake news but that goes further because there are multiple other modalities in the current disinformation tidal wave.

For Ball (2017), *fake news* is only a small part of the disinformation bombardment or “*bullshit*”, from the author’s own mouth, that we are facing. The European Commission (European Commission, 2018) also emphasizes that the threat is disinformation, not *fake news*, thus emphasizing that we are facing a much broader and more complex set of facts. Along these lines, Wardle and Derakhshan (2017) speak of three large macrotypes of informational disorders (Figure 1):



1. **Disinformation:** Information or apparently informative content that is false, created with the intention of harming a person, group, organization, company, country, etc.
 

2. **Misinformation:** Information or apparently informative content that is false or misleading but without intent to harm.
 

3. **Malinformation:** Genuine information with intent to harm a person, group, organization, company, country, etc.
 

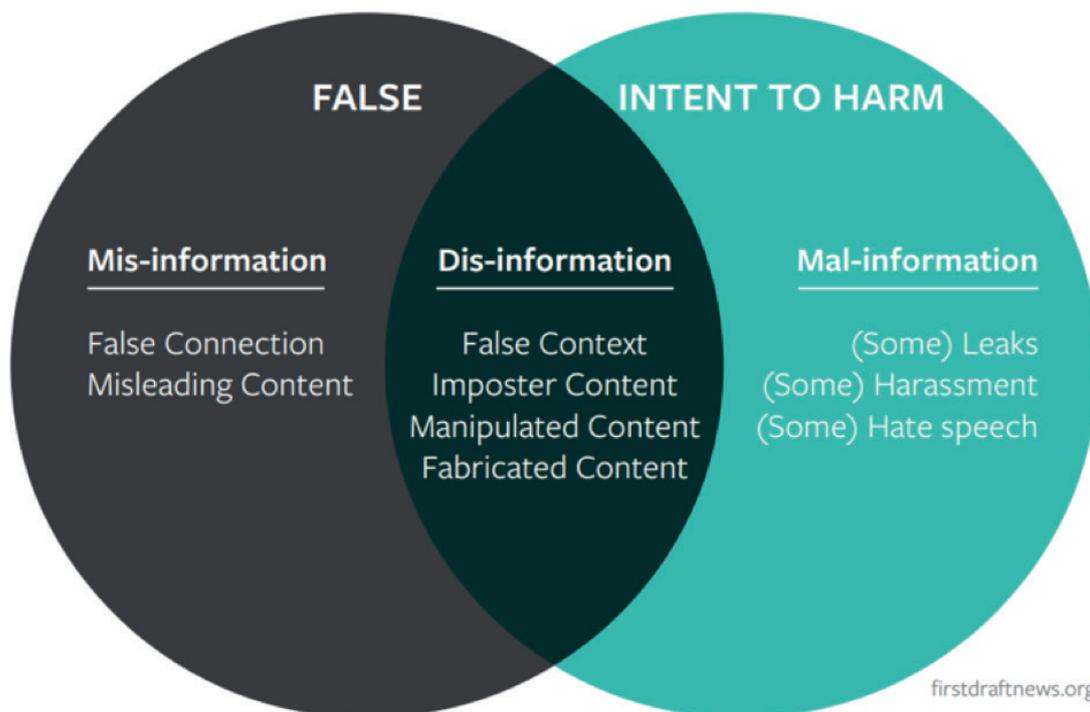


Figure 1: The three major types of information disorders, by Claire Wardle, First Draft (2017)

Disinformation will be, therefore, any narrative that tries to pass off false and/or manipulated information as truth or existing facts, with the intention of causing some type of harm to third parties. Within the multiple modalities that these disinformation narratives can encompass, without a doubt, *fake news* has taken center stage in the public debate. A clear consensus is still lacking in terms of its understanding, in addition to whether it is appropriate to use the name or not (Weiss *et al.*, 2020).

For Wardle and Derakhshan (2017) or Tandoc, Lim and Ling (2018), among others, *fake news* is clearly within the macrocategory of disinformation, defining it as news or content that is undeniably false with the aim of causing some harm. The European Commission (European Commission, 2018) agrees, for whom *fake news* is false, inaccurate or misleading information that is configured, designed and presented with the intention, at a minimum, of making money or influencing policy, although fundamentally with the goal of causing some type of harm, e.g., political, economic, etc. Spe-

cific harm to someone or something that ultimately involves structural and systemic harm, that is, a chaotic information climate plunged into informational disorder or information pollution (Shu, Wang, Lee and Liu, 2020; Wardle and Derakhshan, 2017), where the truth and facts are deliberately blurred in what Ball (2017) calls *infosmog*.

With a more technical point, which we think is important, for Amorós (2018), *fake news* is false information designed to pass itself off as news in order to spread deception or deliberate disinformation to obtain a political or financial purpose, never informative or journalistic in itself. This *masquerading as news* will be what would differentiate it from a simple hoax or other manipulative lies. In the same vein, Gelfert (2018, p. 85) defines *fake news* as “the deliberate presentation of (typically) false or misleading claims as news, where the claims are misleading by design.” Additionally, Alandete (2019, p. 18) circumscribes the phenomenon to the journalistic plane, defining this type of news as that “with misleading, exaggerated or manipulated data, that pervert

“This masquerading as news will be what would differentiate it from a simple hoax or other manipulative lies”



the profession of journalism with a political aim". He also warns that it does not have to be a complete lie and that it is precisely the presence of traces of truth that can make *fake news* more dangerous.

Beyond the definition of *fake news*, there is also some controversy about the relevance of using the term itself. On the one hand, the experts of the aforementioned European Commission report (European Commission, 2018, p. 10) recommended not using it:

"(...) the term 'fake news' is not only inappropriate but also deceiving, because it has been appropriated by some

politicians and their supporters, who use the term to dismiss the coverage they disagree with, thus becoming a weapon with which powerful actors can interfere in the circulation of information and attack and undermine independent media. Research has shown that citizens often associate the term "fake news" with partisan political debate and deficient journalism in general, instead of more pernicious and precisely defined forms of disinformation".



Levitin (2017) points out that the term *fake news* is just another euphemism to say “lie”, such as other multiple terms that appear daily: counterknowledge, half-truth, extreme points of view, alternative reality, alternative facts, and conspiracy theory. Along these lines, Wardle, a prominent member of the *First Draft* scientific initiative (<https://firstdraftnews.org/>), prefers to talk about disinformation and categorize, under this label, the different forms of information manipulation. Figure 2 shows the details.



Figure 2: Taxonomy of informational disorders, by Wardle, First Draft (2017)



“(…) the term 'fake news' is not only inappropriate but also deceiving, because it has been appropriated by some politicians and their supporters, who use the term to dismiss the coverage they disagree with (…)”

In contrast, the Digital Culture, Media and Sports Committee of the House of Commons of the United Kingdom (House of Commons, 2019), in the report it issued in this regard, has no problem using *fake news* for news that meets at least one of the following conditions:

1. Directly invented information;
2. Manipulated information, i.e., some facts exist, but the real information is distorted;
3. Source of information is impersonated;
4. Opinion disguised as fact;
5. False context or connections, i.e., the information is real but decontextualized (headline, photo, etc., does not correspond, for example, with the rest of the content); and
6. Satirical content or parody of a humorous nature, which in principle

does not have to be pernicious (although it is worth asking if this is always the case)¹.

In any case, beyond the terminology debate, the focus seem to be on being able to detect content that, usually appearing as journalistic news, presumably reports real events but that meets at least one of the requirements listed in the British Parliament's report. Once deactivated, that is, not given credibility and not shared, the subsequent step is to try to discern the possible “victim” and/or “beneficiary” of this disinformation narrative, i.e., who or what could suffer

¹ Regarding this last point, the claims of disinformation campaigns and of the possible authors or issuers of them very often tend to be counteracted, precisely, with responses that mix denying the facts with humor, if not with mockery or sarcasm (Alandete, 2019).

harm in the short, medium or long terms and who could benefit from such harm, as stated by the aforementioned Baggini (2018). All this, it should be emphasized, should be considered with a scientific outlook, trying to find evidence that prevents us from our own conspiratorial and paranoid thoughts, of course.

All this information is key, especially if we are immersed in political processes that drive the future of our societies, such as international conflicts, elections, or referendums, legal or, as the case at hand, illegal, more like coups d'état and the postmodern legality in effect today.

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3. Political processes in the current “disinfodemia” era

If we confine the disinformation problem described thus far to the political landscape, we find ourselves before a panorama that Hendrix and Carroll (2017) unambiguously describe as a true nightmare for current democracy.

O’Neal (2016) warned five years ago of the very serious democratic danger posed by the algorithms of social networks and other digital giants. The digital scenario increases exposure to various ideas and perspectives and changes the patterns of information consumption by giving individuals more content options. This increases segregation in online consumption and, consequently, ideological distance between users. This

apocalyptic approach carries dangerous implications in the political context because intolerance and hostile feelings toward individuals with different political opinions have skyrocketed.

More recently, Messa (2019) analyzed the phenomenon from the perspective of *sharp power*, a concept that defines those external interferences in some or other countries that do not become *hard* or of a more



purely warlike nature, nor are they *soft*² or clearly persuasive. Thus, the author frames the current information disorder in what would be the communicative front of a global cyberwar deployed under the model of the well-known *Gerasimov doctrine*, on which we will stop later.

In an era in which most politicians issue their official statements through these platforms, a single piece of disinformation will quickly become an instrument of ideological polarization used by allies and enemies. Despite the hypothesis of the “End of Ideology” (Dalton, 2006), which postulates that social modernization could moderate ideological polarization, with more centrism and moderate debates, it seems that the new digital landscape is providing exactly the opposite: the more polarized the message is, the more circulation and visibility that content gets. Hoaxes accentuate the extreme fragmentation of public opinion and social polarization within a society, state or nation (Tambuscio, Ruffo, Flammini, and Menczer, 2015).

In addition, the fact that false information is initiated by the political elites themselves—parties and politicians—in a conscious way implies a new added problem

for democratic health. In fact, one of the most representative examples of the consequences of this type of disinformation is the attack on the United States Capitol in early January 2021. After the 2020 presidential elections, Donald Trump repeatedly claimed that there had been electoral fraud and that, in reality, he had won the “legal vote”. This conspiracy theory pushed thousands of pro-Trump extremists to violently invade one of the most emblematic buildings in the United States, with the aim of ruining the election of Joe Biden as the new president. Events like this happen because lies have a substantial impact on public opinion and behavior; in fact, as several journalists and researchers point out, Donald Trump, for example, “would not have been elected president if it were not for the influence of fake news” (Allcott & Gentzkow, 2017, p. 212).

This scenario of polarization will always be achieved, however, by amplifying pre-existing conflicts or debates, as was the *modus operandi* of traditional propaganda, although now in an exponential way. As O’Neal (2016) states, today, technology places each of us in isolation within our own and welcoming political corner. It is there where the new era of *dog-whistle politics*,

² Compared to the traditional concept of soft power, defined as the ability of a country to affect third countries through attraction and persuasion, sharp power would be exercised by authoritarian powers in a more aggressive way, with the aim of harming public debate and freedoms within liberal democracies and themselves ultimately (see Walker, Kalathil and Ludwig, 2020).

in the words of Ball (2017), finds a more than fertilized playing field. We are talking about those politicians (or third parties, notably) who *whistle* or launch messages that only a certain *target* will hear, that is, the group of users of the networks that is *tuned to the correct frequency*, to put it another way. In this way, personalized messages are achieved *ad infinitum* and in an absolutely compartmentalized and watertight manner. This gives rise to a legion of *echo chambers* (or *ego chambers*³, the other side of the same coin), thanks to which it is possible to dispense with all decorum, all observance of a minimum shared truth, and all respect for the other, something that did demand to some extent at least the public square of democracy and traditional media.

In the words of Ferraris (2019), we are facing plankton dispersed in the ocean of the internet composed of small tribes, if not isolated individuals carrying and spreading their own convictions, which have more to do with emotions and beliefs and not always with rational ideas or arguments. By opening wide the doors of the supermarket of beliefs, in the words of the author, polarization is served. In addition, if, as McIntyre (2018) pointed out, it is true that traditional media prefers controversy and discussion

to the truth, much more profitable in terms of audience, the same thing happens with digital media but in a greatly exacerbated way (Williams, 2021).

Relatedly, another consequence of the vertiginous advance of the digital revolution is the bodily dimension of the human being. As surprising as it may seem, our digital life makes our body increasingly superfluous, a completely dispensable reality, Lassalle (2019) claims. This seems even more evident after the COVID-19 pandemic. Relating this to what has been described above, the processes of human empathy and compassion are conditioned to a large extent by the physical presence of and by the distance between people, as shown by numerous experimental studies in social and moral psychology (Thompson, 1985).

In parallel to all this, a second source of threat to democratic processes that is also closely related to the consumption of disinformation is the very business model on which the main agents of the new digital economy are based. The main commodity or raw material is none other than human attention. Williams (2021) points out that everyone actually competes to capture as much of our attention as possible and for as long as possible, i.e., in more technical terms, to achieve *engagement*. Thus, the different platforms become what Williams (2021) calls weapons of mass distraction, providing a continuous and growing flow of information or content to be more exact. This abundance of information produces

³ Ferraris (2019, p. 58) explains in a very graphic way this feedback mechanism between disinformation and *Echo/Ego Chambers*: “Only an imbecile, to control the veracity of news, would buy many copies of the same newspaper, and that is precisely what we all do, more or less consciously, when we surf the web”.



"...we are facing plankton dispersed in the ocean of the internet composed of small tribes, if not isolated individuals carrying and spreading their own convictions, which have more to do with emotions and beliefs and not always with rational ideas or arguments"



a lack of attention in the user; the current overabundance is responsible for its practical disappearance. If the attentional capacity of the human being is diminished, the architecture of the human psyche as a whole falter, as William James, the father of modern psychology, warned many decades ago.

All this hits squarely on the waterline of democracy. As Williams states (2021, p. 91), “among the essential faculties for the exercise of democracy are reflection, memory, prediction, calm, logic, and the establishment of objectives”. Thus, “it is on this level that the distractions of the attention economy most directly undermine the foundations of democracy”. If we think that, on the other side, in that army of distractors, what we find are not only people but also a legion of algorithms processing *big data*, the panorama becomes sinister. The automation of that social influence, warn not a few authors (Bradshaw and Howard, 2019; Howard, 2020), will be what marks and shapes the public sphere today and therefore democracy. We speak of computational propaganda, omnipresent and ubiquitous in everyday life. Thus, it is not surprising that Lassalle (2019), among others, warns of the new digital totalitarianism, of *cyber-totalitarianism* or algorithmic despotism, a *cyberpopulation* where the truth is given either by the *likes* (generated by real people or not) or by the first Google search results (Harari, 2018). When not for the “wisdom of the mob”, in the words of Kakutami (2018).

The surprising thing is that all this is being

built not just with the acceptance of the citizenry but with their general enthusiasm. In many settings, voluntarily, the convenience of having things done depends on the freedom of choice. What at first could be interesting in certain commercial or consumer areas, if it is transferred to other vital territories, such as politics, the matter changes worryingly of course. It is no coincidence that the “Internet of Things” (IoT) has given way to the “Internet of Behaviors” (IoB), which no longer predicts but shapes. In that sense, Lassalle (2019, p. 100) says “we are reaching the threshold that separates the prediction of the behaviors from their determination”, in which he fully agrees with Williams (2021).

Therefore, the role of the last wave of the digital revolution seems to be decisive in the “collapse of the liberal narrative” (Lassalle, 2019, p. 74). Faced with algorithms that decide for oneself, making life more comfortable and easier, as mentioned above, why do we want freedom? Thus, it is no longer being afraid of it, as Fromm said⁴ decades ago, but boredom, contempt and indifference. It is not surprising, therefore, that, in a good number of current liberal democracies, the percentage of citizens who consider it “essential” to live in democracy (in freedom) has plummeted in recent

⁴ See the famous essay of the German psychoanalyst Erich Fromm *Escape from Freedom*, published in the United Kingdom in 1941, in the middle of World War II.



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years, as Williams (2021, p. 91) alarmingly warns. Like so many other things, what we find given in life is not valued until it is lost.

In conclusion, we are faced with a landscape shaped by an automated, computerized information and disinformation disorder that acts consciously or unconsciously against the main epistemological pillars of democracy, pillars that are none other than science, scientific and empirical thinking (García Marín and Aparici, 2019), attached to freedom and liberties, trust and mutual respect under a minimally common and shared framework (Farkas and Schou, 2020; MacKenzie and Bhatt, 2020), a minimal and rationally critical and informed public opinion, and the search for truth as a horizon. What in this magma could only be called *postfactual* or *posttruist* democracy (Ferraris, 2019)

could sooner than later cease to be democracy. In addition, its processes, electoral or otherwise, such as the case that concerns us with the illegal referendum of secession in Catalonia, cease to be authentically democratic. As historian Fernández-Armesto (1997) emphasized some time ago, without truth, there is no trust, and without trust, there is no civilization or social order of any kind, and, of course, even less democratic. Without reason or truth, minimally rational decisions cannot be made, and therefore, there is no room for democratic processes worthy of the name. When what prevails is deception and lies, we are facing a horizon of war more than of peace and democracy.



"When what prevails is deception and lies, we are facing a horizon of war more than of peace and democracy."

References

- Alandete, D. (2019). Fake news: La nueva arma de destrucción masiva. Barcelona: Deusto.
- Allcott, H., & Gentzkow, M. (2017). Social Media and Fake News in the 2016 Election. *Journal of Economic Perspectives*, 31 (2): 211-36.
- Amorós, M. (2018). Fake news: la verdad de las noticias falsas. Plataforma Editorial: Barcelona.
- Baggini, J. (2018). A Short History of Truth: Consolations for a Post-Truth World. London: Quercus.
- Ball J. (2017). Post-Truth. How Bullshit Conquered the World. London: Biteback Publisher.
- Bernays, E. (2008). Propaganda. Barcelona: Melusina.
- Bok, S. (1978). Lying: Moral Choice in Private and Public Life. Pantheon Books.
- Buonanno, E. (2019). Sarà vero. Falsi, sospetti e bufale che hanno fatto la storia. Milano: Utet.
- Brown, J.A.C. (1963). Techniques of Persuasion. From Propaganda to Brainwashing. Harmondsworth: Penguin Books.
- Castronovo, R. (2014) Propaganda 1776. Secrets, Leaks, and Revolutionary Communications in Early America. Oxford: Oxford University Press.
- Correas, M., & Kennedy, E. (2019). Fake news! Bulos que cambiaron el curso de la historia. Marcial Pons.
- Cosseron, S. (2002). Les Mensonges de Napoléon. Paris: Perrin.
- Conquest, R. (2001). Reflections on a Ravaged Century. New York: Norton.
- Dalton, Russell J. (2006). Social Modernization and the End of Ideology Debate: Patterns of Ideological Polarization. *Japanese Journal of Political Science* 7 (1):1-22.
- Eco, U. (2000). Baudolino. Milano: Bompiani.
- European Commission (2018). "A multi-dimensional approach to disinformation". European Commission. ISBN 978-92-79-80420-5 doi:10.2759/739290
- Farkas, J., and Schou, J. (2020). Post-truth, fake news and democracy: Mapping the politics of falsehood (1st edition). New York: Routledge.
- Fernández-Armesto, F. (1997). Truth. A History and a Guide for the Perplexed. New York: St. Martin's Press.
- Ferraris, M. (2019). Posverdad y otros enigmas. Madrid: Alianza
- Floridi, L. (2014). La quarta rivoluzione. Come l'infosfera sta trasformando il mondo. Milano: Raffaello Cortina Editore.
- García Marín, D. y Aparici, R. (2019). La posverdad: el software de nuestra era. En R. Aparici y D. García Marín (coord.). La posverdad. Una cartografía de los medios, las redes y la política. Barcelona: Gedisa, pp. 25- 43.
- Gelfert, A. (2018). Fake News: A Definition. *Informal Logic*, 38(1), 84–117. <https://doi.org/https://doi.org/10.22329/il.v38i1.5068>
- Harari, Y. N. (2018). 21 Lessons for the 21st Century. New York: Spiegel & Grau.
- Hendrix, J. and Carroll, D. (2017). Confronting a Nightmare for Democracy. Available at: <https://medium.com/@profcarroll/confronting-a-nightmare-for-democracy-5333181ca675>
- Hook, H. (2017). Scars of Independence: America's Violent Birth. New York: Crown Publishing Group.
- House of Commons (2019): Disinformation and 'fake news': Final Report. Available at: <https://publications.parliament.uk/pa/cm201719/cmselect/cmcmmeds/1791/1791.pdf>
- Jacomella, G. (2017). Il falso e il vero. Fake News: che cosa sono, chi ci guadagna, come evitarle. Milan: Feltrinelli.
- Kakutami, M. (2018). The Death of Truth. Notes on Falsehood in the Age of Trump. New York: Tim Duggan Books.
- Lagarde, J. & Hudgins, D. (2018). Fact vs Fiction. Teaching Critical Thinking Skills in the Age of Fake News. International Society for Technology in Education.
- Lassalle, J. M. (2019). Ciberleviatán. EL colapso de la democracia liberal frente a la revolución digital. Barcelona: arpa.
- Levitin, D. J. (2017). Weaponized Lies. How to Think Critically in the Post-Truth Era. New York: Dutton.



- McLeod, C. (2020). Trust. Stanford Encyclopedia of Philosophy.
- MacKenzie, A. & Bhatt, I. (2020). Lies, Bullshit and Fake News: Some Epistemological Concerns. *Post-digital Science and Education*, 2(1), pp. 9-13. doi: <https://doi.org/10.1007/s42438-018-0025-4>
- Madrigal, A.C. (2017). What Facebook Did to American Democracy. In *The Atlantic* (<https://www.theatlantic.com/technology/archive/2017/10/what-facebook-did/542502/>).
- Marqués González, N. (2019). *Fake News de la Antigua Roma*. Espasa.
- Matute, H. (2018). *Nuestra mente nos engaña. Sesgos y errores cognitivos que todos*. Barcelona: Shackleton Books.
- McIntyre L. (2018). *Post-truth*. Cambridge: MIT Press.
- Messa, P. (2019). *The Age of Sharp Power: China, Russia and Iran: The Interference is not Soft. The Italian Case*. Milan: Bocconi University Press.
- Nielsen, N. (2017). Cereal cultivation and nomad-sedentary interactions at the Late Bronze Age settlement of Zawiyet Umm el-Rakham. *Antiquity*, 91(360), 1561-1573. doi:10.15184/aqy.2017.174
- O'Connor, C. & Weatherall, J. O. (2019). *The Misinformation Age*. New Haven: Yale University Press.
- O'Neil, C. (2016). *Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy*. New York: Broadway Books.
- Pizarroso Quintero, A. (1993). *Historia de la Propaganda*. Madrid: Eudema.
- Salas Abad, C. (2019). La primera 'fake news' de la historia. *Historia y Comunicación Social*, 24(2), 411-431. <https://doi.org/10.5209/hics.66268>
- Unger, H. G. (2011). *American Tempest: How the Boston Tea Party Sparked a Revolution*. Philadelphia: Da Capo Press.
- Wardle, C. and Derakhshan, H. (2017). *Information disorder. Toward an interdisciplinary framework for research and policymaking*. Strasbourg: Council of Europe. <https://bit.ly/2OsHEHY>
- Tambuscio, M., Ruffo, G., Flammini, A., & Menczer, F. (2015). Fact-checking Effect on Viral Hoaxes: A Model of Misinformation Spread in Social Networks. <https://doi.org/10.1145/2740908.2742572>
- Tandoc E C, Lim ZW, and Ling R. (2018). Defining 'Fake News'. *Digital Journalism*, 6 (2), 137-153. <https://doi.org/10.1080/21670811.2017.1360143>
- Thompson, J. J. (1985). The Trolley Problem. *Yale Law Journal*, 94, 6, 1395-1415.
- Shu K, Wang S, Lee D, and Liu H. (2020). *Disinformation, Misinformation, and Fake News in Social Media: Emerging Research Challenges and Opportunities*. Cham: Springer.
- Villanueva, D. (2021). *Morderse la lengua. Corrección política y posverdad*. Barcelona: Planeta.
- Vosoughi, S., Roy, D., & Aral, S. (2018). The spread of true and false news online. *Science*, 359(6380), 1146 LP-1151. <https://doi.org/10.1126/science.aap9559>
- Weiss, A. P., Alwan, A., Garcia, E. P., & Garcia, J. (2020). Surveying fake news: Assessing university faculty's fragmented definition of fake news and its impact on teaching critical thinking. *International Journal for Educational Integrity*, 16(1). <https://doi.org/10.1007/s40979-019-0049-x>
- Williams, J. (2021). *Stand out of our light*. Cambridge: Cambridge University Press.

2

THE EUROPEAN UNION AGAINST DISINFORMATION

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Introduction

The dissemination of fake news online is one of the main concerns of the European Union (EU), whose institutions have increased efforts and attention in recent years to combat disinformation.

The EU has considerably increased its capabilities to better understand and respond to the phenomena posed by this problem, for example, electoral interference and online hate speech, among other challenges.

The algorithm-based nature and advertising-driven characteristics of modern content exchange systems developed by social networks raised community concern that EU institutions have been trying to man-

age, aware of the social impacts that they can attract on one side and the respect for freedom of expression on the other.

As outlined in more detail, the EU began to examine possible external interferences to gradually develop both an internal strategy and a self-regulation mechanism at the international level. In summary, the main actions were as follows:



- March 2015. Establishment of the European External Action Service (EEAS) by the Eastern Strategic Working Group, followed by the creation of the EEAS Western Balkans Task Force and the Task Force South;
- April 2015. Development of an EU internet forum to fight terrorist content and online hate speech;
- November 2017. Establishment of the High-Level Expert Group on Fake News and Disinformation;
- April 2018. Communication from the European Commission titled 'Tackling online disinformation: a European approach';
- November 2018. EU Code of Practice on Disinformation;
- December 2018. European Commission Action Plan against Disinformation;
- March 2019. Establishment of the EU Rapid Alert System.



Grupo de trabajo estratégico del Este

In 2015, the “Eastern Strategic Working Group” was established to address Russia’s ongoing disinformation campaigns and respond to related disinformation activities.

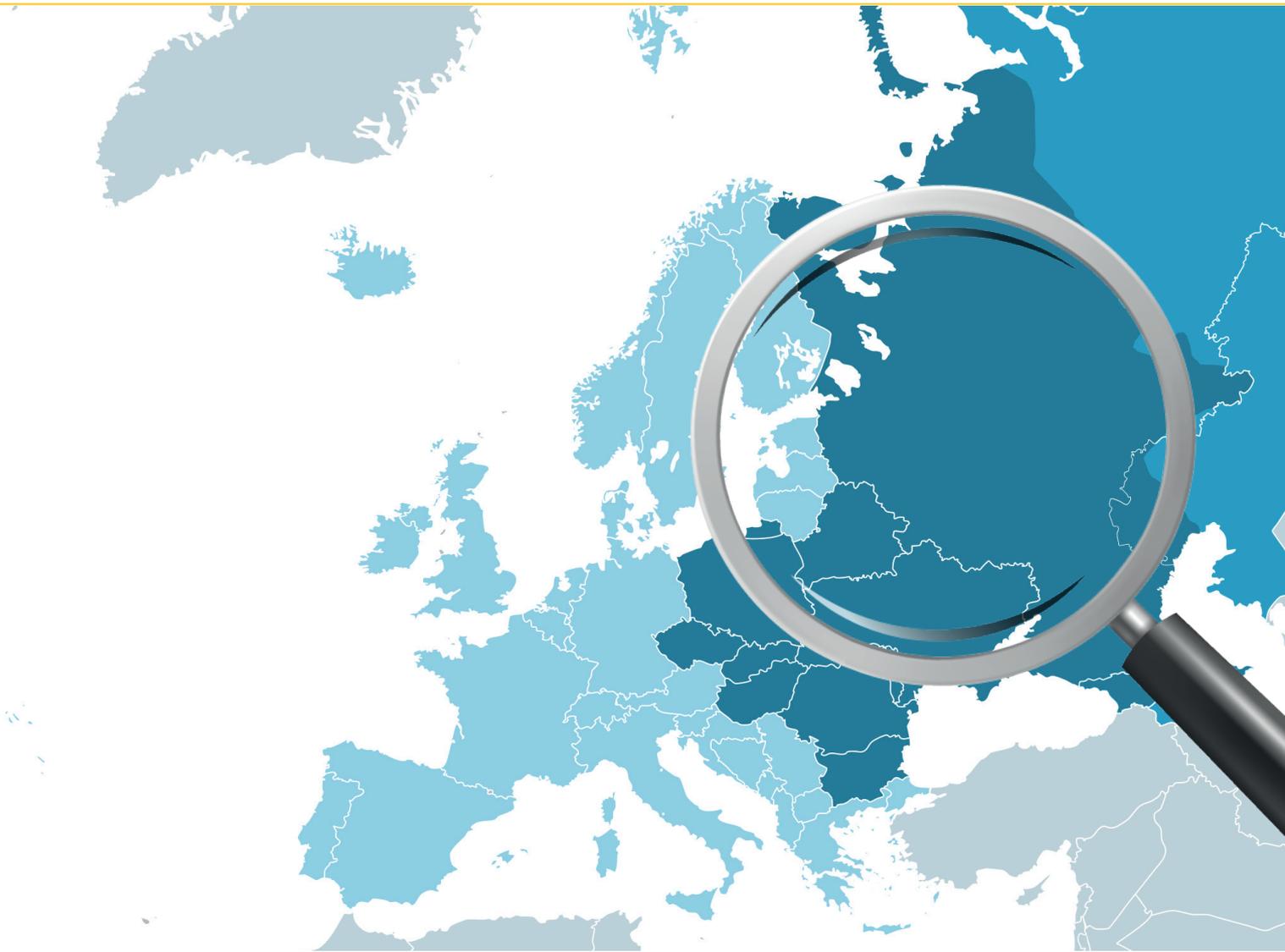
The Action Plan on Strategic Communication, presented in June 2015, has three main objectives:

1. Ensure effective communication with and promote EU policies toward the Eastern Neighborhood;
2. Strengthen the overall media environment in the Eastern Neighborhood and in the EU Member States, including support for media freedom and strengthening independent media; and
3. Improve the capacity of the EU to forecast, address and respond to disinformation activities by external actors.

The working group develops communication products and campaigns focused on better explaining EU policies in the Eastern Partnership countries (Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine). It works in close collaboration with EU institutions and with EU delegations in Eastern Partnership countries.

It supports the broader efforts of the EU aimed at strengthening the media environment in the Eastern Partnership region in close collaboration with other EU actors.

Positive communication products focus on the countries of the Eastern Neighborhood and are created in the local languages of



those countries. They can be found through the social media channels of the EU delegations in the region and are also broadcast on television and through other media and at public events.

The team reports on disinformation trends through the official site “EUvsDisinfo”¹, explains and uncovers disinformation narratives and creates awareness about the disinformation coming from the Russian State and disseminated in the media space of the Eastern Neighborhood. Using data analysis and media monitoring services in 15 languages, EUvsDisinfo identifies, compiles

and exposes cases of disinformation originating in pro-Kremlin media that spread throughout the EU and the countries of the Eastern Partnership. Since 2019, monitoring activities have uncovered the substantial release of disinformation in the Western Balkans and the Southern Neighborhood of the EU. These cases (and the verification of relative facts) are collected in the EUvsDisinfo database, the only open-source repository of its kind, which currently includes more than 6,500 samples of pro-Kremlin disinformation. The database is updated every week, along with a brief summary of trends.



The work conducted by the working group on disinformation is fully available on its website www.EUvsDisinfo.eu and on its social networks (Twitter¹ and Facebook). The team also runs the Russian website of the EEAS. Russian is spoken and understood by millions of people around the world, including in EU Member States.

The EEAS website in Russian communicates mainly about EU foreign policy through the publication of information on EU activities and EU statements and press releases that are relevant to the Eastern Neighborhood in particular.

Also in 2015, the EU internet forum was created by Dimitris Avramopoulos (Commissioner for Migration, Home Affairs and Citizenship) and Věra Jourová (Commissioner for Justice, Consumers and Gender Equality) as one of the key commitments assumed in the European Agenda on Security presented by the Commission in April 2015. Its objective is to provide a framework for efficient cooperation with the in-

ternet industry in the future and ensure a commitment of the main actors to coordinate and expand efforts in this area in the coming years. Senior representatives from Ask.fm, Facebook, Google, Microsoft and Twitter participated in the launch event.

Based on this initiative, the Civil Society Empowerment Program takes measures to support civil society, grassroots organizations and credible voices in the provision of effective alternatives to messages from violent extremists and terrorists as well as ideas that counteract extremist and terrorist propaganda.

Empowered by the Radicalization Awareness Network², the program is committed to capacity development, training, the association of civil society organizations with internet companies and social networks, and support for campaigns designed to

1 <https://twitter.com/EUvsDisinfo>

2 The Radicalization Awareness Network (RAN) connects frontline practitioners from across Europe with one another and with academics and policy-makers to exchange knowledge, first-hand experiences and approaches to preventing and countering violent extremism in all its forms. https://ec.europa.eu/home-affairs/what-we-do/networks/radicalization_awareness_network_en



"The European Council stressed the need to challenge Russia's ongoing disinformation campaigns(...)"

reach vulnerable people at risk of radicalization and recruitment by extremists.

The European Agenda on Security gives priority to terrorism, organized crime and cybercrime as interrelated areas with a strong cross-border dimension, in which EU action can make a real difference. One of these priorities is the development of effective programs of deradicalization and disengagement, including the influence of online radicalization. During a meeting of the European Council on 19 and 20 March 2015, EU leaders gave the High Representative of the Union for Foreign Affairs, Federica Mogherini, three months to figure out how to support media freedom and European values in Russia because the EU's efforts seem disproportionate compared to the Russian propaganda machine.

In the conclusions, the following was stated: "The European Council stressed the need to challenge Russia's ongoing disinformation campaigns and invited the High Representative, in cooperation with Member States and EU institutions, to prepare by June an action plan on strategic communication. The establishment of a communi-

cation team is a first step in this regard"³.

Initial plans to counteract Russian propaganda included the creation of a "European Russian television channel", but the EU institutions distanced themselves from the related initiatives, leaving them in the hands of the Member States that are willing to implement them.

Latvia, which assumed the rotating Presidency of the Council of the EU on January 1, expressed the need to launch quality independent media in the Russian language that could include a television channel in Russian to counteract the Kremlin propaganda, said a government senior official to journalists in Riga.

The Netherlands commissioned a [feasibility study](#) for developing [Russian language media initiatives](#)⁴ that was carried out through

3 <https://www.eesc.europa.eu/resources/docs/european-council-conclusions-19-20-march-2015-en.pdf>

4 <https://www.democracyendowment.eu/en/news/621-eed-discusses-russian-language-media-initiatives-in-varsovia.html>

the European Foundation for Democracy, an initiative of the EU to promote democracy in the Union Neighborhood. The feasibility study, however, has served more as a starting point for discussions than for specific projects.

This has not prevented the Russian side from accusing the EU and the United States of their [“plan to spend big money on Russian Language Info Wars”](#)⁵. In fact, the EU has not invested money in any campaign of this type, and a working group has been created within the EEAS without any budget.

In March 2017, a group of Czech experts deployed a petition signed by high-profile personalities such as the former Russian chess champion Gary Kasparov and a former president of Estonia. In an open letter to HR Mogherini⁶, the European Values group of experts describes “the aggressive actions of the Kremlin” as “unprecedented in the modern era”.

5 <https://russia-insider.com/en/politics/eu-and-us-plan-spend-big-money-russian-language-info-wars-q/ri8914>

6 <https://www.europeanvalues.net/mogherini/>

The request was supported by 65 European security experts and parliamentarians from 21 countries who signed a statement explicitly blaming the EU foreign affairs chief for building a team with few personnel for a job as complex as that of the EU. East Stratcom is demanded to do so.

In January 2018, a close confrontation over external disinformation occurred in the European Parliament. In response to this hybrid war, the group of European parliamentarians (MEPs) suggested developing an authentic European media policy. According to these, quality journalism and media education are the keys to addressing disinformation among European citizens. They need to learn to read the media and know who is behind the information. Improving the transparency of the financing of the media and information sources is a good portion of this battle.

We must take a step forward in the fight against disinformation and address the problem both internally and in its global dimension.



"the European Values group of experts describes "the aggressive actions of the Kremlin" as "unprecedented in the modern era""

Grupo de expertos de alto nivel sobre noticias falsas

“The Commission needs to look into the challenges the online platforms create for our democracies as regards the spreading of fake information and initiate a reflection on what would be needed at the EU level to protect our citizens”.

With such indications outlined in the mission letter⁷, the president of the European Commission, Juncker, entrusted Mariya Gabriel with this new task as Commissioner for the Digital Economy and Society. Her response was not long in coming.

In January 2018, a high-level expert group (HLEG) was created to advise on policy initiatives to counter fake news and disinfor-

mation spread online. The main outcome of the HLEG was the report⁸ “A multidimensional approach to disinformation” (2018), which was designed to review best practices in light of the core principles in the Treaty on European Union⁹ and the appropriate responses derived from these principles.

⁷ https://ec.europa.eu/commission/commissioners/sites/cwt/files/commissioner_mission_letters/mission-letter-mariya-gabriel.pdf

⁸ <http://sites.les.univr.it/cybercrime/wp-content/uploads/2017/08/A-multi-dimensional-approach-to-disinformation-Informe-del-Grupo-independiente-de-alto-nivel-sobre-noticias-de-falsificacion-y-desinformacion-en-linea.pdf>

⁹ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A12012M%2FTXT>

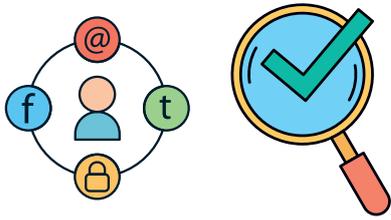


The analysis presented in the report is based on a shared understanding of disinformation as a phenomenon that goes beyond the term “fake news”. Disinformation, as defined in this report, includes all forms of false, inaccurate or misleading information designed, presented and promoted to intentionally cause public harm or for benefit. This can threaten democratic processes and values and can specifically target a variety of sectors, including health, science, education and finance.

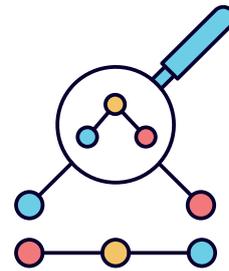
The report emphasizes the need to involve all relevant parties in any possible action, recommending above all a self-regulatory approach. It does not cover issues arising from the creation and dissemination of illegal content online (in particular, defamation, incitement to hatred, and incitement to violence), which are subject to regulatory resources under national or EU law, or other forms of deliberate but not misleading distortions of the facts, such as satire and parody.

The multidimensional approach recommended by the HLEG is based on a series of interconnected and mutually reinforcing responses. These responses are based on five pillars designed to accomplish the following:

"Disinformation, as defined in this report, includes all forms of false, inaccurate or misleading information designed, presented and promoted to intentionally cause public harm or for benefit"



- Improve the transparency of on-line news, which implies an appropriate exchange compatible with data privacy on the systems that allow its circulation online;



- Develop tools to empower users and journalists to address disinformation and foster positive engagement with rapidly evolving information technologies;



- Safeguard the diversity and sustainability of the European media ecosystem;



- Promote ongoing research on the impact of disinformation in Europe to evaluate the measures adopted by the different actors and constantly adjust the necessary responses.

The report reaffirms the EU's commitment to defend civil liberties as well as freedom of expression, as defined in the European Convention on Human Rights and the Charter of Fundamental Rights of the European Union¹⁰.

It clearly states that "all responses must avoid interfering with freedom of expression and the freedom to receive and impart information". In addition, "initiatives aimed at counteracting specific problems of disinformation (...) must be directed and formulated with great accuracy to ensure that they do not allow public or private authorities to restrict freedom of expression by accident or design.

HLEG believes that the EU or governments should avoid the politically dictated privatization of the police and the censorship of what is and is not acceptable forms of expression".

The report describes the internet as an essential and powerful asset for the prosperity of our countries and the vitality of our democracy: despite the challenges it poses to society, it is recognized that it has a very positive overall impact.

The report states that content produced by quality, independent and pluralistic media is the best antidote to disinformation.

Suggested responses include combating fake news with verified information, supporting quality journalism and pluralistic media environments in Member States, investing in media literacy, fact-checking and conducting research.



The report was published a month after the conclusion of a public consultation initiated in November 2017 that evaluated the perception of citizens about fake news. Intentional disinformation aimed at influencing elections and immigration policies were the two main categories in which most respondents believed that fake news would probably cause harm to society.

According to the latest Eurobarometer survey¹¹ (approximately 26,000 citizens interviewed), people perceive that there is a substantial amount of fake news throughout the EU, and 83% of respondents say that this phenomenon represents a danger to democracy. The importance of quality

¹⁰ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:12012P/TXT>

¹¹ <https://ec.europa.eu/commfrontoffice/publicopinion/index.cfm/survey/getsurveydetail/instruments/flash/surveyky/2183>



media also stands out: respondents perceive traditional media as the most trustworthy source of news (radio, 70%; TV, 66%; and written press, 63%). Online news sources and video hosting websites are the least trustworthy news sources, with trust rates of 26% and 27%, respectively.

These results have been confirmed through public consultations, placing the least amount of trust in social networks, online news aggregators and online blogs and websites and greater trust in traditional newspapers and magazines, specialized websites and online publications, news agencies and public agencies (in general with more than 70%).

According to public consultations, the general perception is that the spread of disinformation through social networks is entertaining because fake news appeals to the emotions of readers (88%), is propagated to

guide public debate (84%) and is designed to generate income (65%). Half of the respondents believe that fact-checking after the disinformation has been published and shared is not a solution because such information will not reach the people who saw the initial information.

In the end, the HLEG report also advocates for the establishment of a code of principles to which online platforms and social networks must commit. Among the 10 key principles outlined in the report, online platforms must, for example, guarantee transparency by explaining how algorithms select the news presented. In cooperation with the European media, they are also encouraged to adopt effective measures to improve the visibility of reliable and trustworthy news and to facilitate user access to them. The commission's countermeasures are illustrated below.

“All responses must avoid interfering with freedom of expression and the freedom to receive and impart information”

El “enfoque europeo” y el código de Principios de la UE

Inspired by the HLEG report and the aforementioned Eurobarometer survey, the communication “Tackling online disinformation: a European Approach”, published in April 2018¹, presents several tools to address the spread and impact of online disinformation in Europe and to ensure the protection of European values and democratic systems.

Disinformation is recognized as a powerful, economic and potentially lucrative tool. The technical characteristics of online publication and online content creation, the algorithm-based nature, the inclination driven by advertising and the possibility of

creating bots and *trolls* are identified as the key elements that drive the reach and impact of disinformation.

Users themselves also play important roles in the dissemination of disinformation,

¹ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52018DC0236&from=EN>

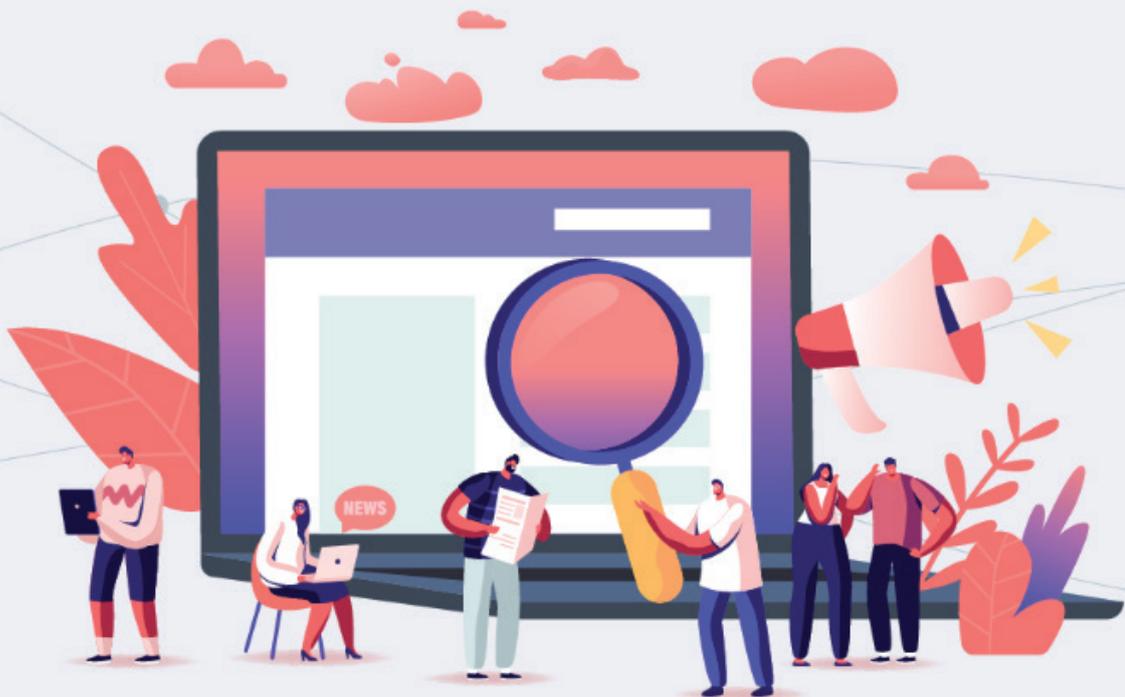


which tends to travel more quickly on social networks due to the propensity of users to share content without any prior verification. The increasing volume and speed of content that flows online increases the risk of indiscriminately sharing disinformation.

The disinformation communication conveyed a strategy based on four principles, summarized below:

1. Improve transparency regarding the origin of information and the way it is produced or sponsored;
2. Promote the diversity of information;
3. Foster credibility of information; and
4. Fashion inclusive solutions, with broad stakeholder involvement.

New Code of Practice on Disinformation



#DigitalEU #CodeOfPractice

The platforms have not provided sufficient transparency about political advertising and sponsored content. They have also not made enough information available on the use of strategic dissemination techniques, such as paid human *influencers* and/or bots, to market messages.

The commission calls on the platforms to intensify their efforts to confront online disinformation. It considers that self-regulation can contribute to these efforts, as long as it is applied and supervised effectively. “We are calling on all actors, in particular platforms and social networks that have a clear responsibility, to act on the basis of an action plan aiming at a common

European approach so that citizens are empowered and effectively protected against disinformation. We will closely monitor the progress made and may propose further actions by December, including measures of a regulatory nature, should the results prove unsatisfactory”, said Commissioner Mariya Gabriel¹².

From this perspective, representatives of online platforms, leading social networks, advertisers and the advertising industry

12 https://ec.europa.eu/commission/presscorner/detail/en/IP_18_3370



“We are calling on all actors, in particular platforms and social networks that have a clear responsibility (...)” Mariya Gabriel



agreed on a code of practice for self-regulation to address the spread of the disinformation and fake news on the internet.

This is the first time in that the industry has agreed to, on a voluntary basis, self-regulation standards to combat disinformation. The EU Digital Commissioner Mariya Gabriel announced that companies have agreed to follow a set of commitments to counteract disinformation on their platforms and publish a roadmap that clearly indicates how they will achieve their objectives.

The code of good practices aims to achieve the objectives set forth in “Tackling online disinformation: a European approach” by establishing a wide range of commitments, from transparency in political advertising to closing fake accounts and demonetizing disinformation providers.

In particular, the following objectives are highlighted in the code:

1. Ensure transparency about sponsored content, in particular political advertising, and restrict targeting options for political advertising and reduce revenues for disinformation providers;
2. Provide greater clarity on the operation of the algorithms and allow third-party verification;

3. Facilitate the discovery and access of different news sources that represent alternative points of view;
4. Introduce measures to identify and close fake accounts and address the problem of automated bots; and
5. Allow data-checkers, researchers and public authorities to continuously monitor disinformation online.

The code includes an annex that identifies the best practices that the signatories must apply to implement the code’s commitments. The commission has also published the opinion of the sounding board of the multistakeholder forum on the code of good practice.

The code of practice was signed by the online platforms Facebook, Google, Twitter, and Mozilla as well as by advertisers and the advertising industry in October 2018, and the signatories presented their roadmaps to implement the code.

The commitments to which the signatories are required to commit can be summarized as follows:





Scrutiny of ad placement	<ul style="list-style-type: none"> (a) Promote and/or include the use of security tools and brand verification (b) Allow engagement with third-party verification companies (c) Help and/or allow advertisers to evaluate media purchasing strategies and on-line reputation risks (d) Provide advertisers with the necessary access to specific customer accounts to help them monitor ad placement and make decisions regarding where ads are placed
Political advertising and issue-based advertising	<ul style="list-style-type: none"> (a) All announcements must be clearly distinguished from editorial content; they must be presented in such a way that they are easily recognizable as a paid communication or labeled as such (b) Allow the public disclosure of political advertising (defined as advertisements that advocate for or against the election of a candidate) (c) Make reasonable efforts to devise approaches to publicly disclose "issue-based advertising". Such efforts will include the development of a working definition of "issue-based advertising" that does not limit the presentation of reports on political debate and the publication of political opinion and excludes commercial advertising
Integrity of services	<ul style="list-style-type: none"> (a) Establish clear policies regarding the identity and misuse of automated bots in their services and enforce these policies within the EU (b) Establish policies on what constitutes unacceptable use of automated systems and make this policy available to the public on the platform and accessible to EU users
Empowering consumers	<ul style="list-style-type: none"> (a) Develop and implement effective trustworthiness indicators in collaboration with the news ecosystem (b) Invest in features and tools that make it easier for people to find diverse perspectives on issues of public interest (c) Partner with civil society, governments, national institutions and other stakeholders to support efforts to improve critical thinking and digital media literacy (d) Encourage market adoption of tools that help consumers understand why they are seeing particular ads
Empowering the research community	<ul style="list-style-type: none"> (a) Support independent good faith efforts to track disinformation and understand its impact, including the independent network of fact-checkers provided by the European commission since its creation (b) Do not prohibit or discourage good faith research on disinformation and political advertising on their platforms (c) Promote research on disinformation and political advertising

Action Plan Against Disinformation and the Rapid Alert System

“Europe is being attacked by Russia and by some in the United States”, Tajani said, speaking at a high-level fact-checking conference in Parliament on September 27, 2018¹

in the context of disinformation. “Fake news conditions public opinion. As politicians, our duty is to ensure the freedom of choice of citizens”, he added.

Aware of the phenomenon, Commissioner Mariya Gabriel was equally concerned about the ramifications of allowing disinformation to flourish on social networks. According to her point of view, the fake news “undermines the trust of citizens in our institutions”. “This can endanger the entire democratic process”.

With the imminent European elections approaching, the commission has been quick to be in a position to fight, together with a strategy that stifles the threat of fake news.

The consequent ratification of the code of good practices by the main tech giants and social networks does not seem to provide complete peace of mind before the European elections.

Even so, social networks seemed to commit to following the recommendations of the

¹ Meeting of the European Parliament 27 September 2018: https://emeeting.europarl.europa.eu/emeeting/delegation/agenda/201809/D-IL?meeting=D-IL-2018-0927_1P&session=09-27-14-00



code, as reflected in the statement by Facebook's senior executive Richard Allan before the elections for European Parliament: "I don't want anyone to be in any doubt that this is a top priority for the company (...) We will be using a combination of automated systems and user reporting to enforce this policy (...) We recognise that some people can try and work around any system, but we are confident this will be a real barrier for anyone thinking of using our ads to interfere in an election from outside the country"¹³.

The assurances emerge on the tail after another series of countermeasures proposed by European institutions.

In December 2018, the European Commission outlined an action plan¹⁴ to intensify efforts to counter disinformation in Europe and beyond, focusing on four key areas. This plan serves to develop EU capacities and strengthen cooperation between Member States by implementing the following:

13 <https://euobserver.com/foreign/144537>

14 https://eeas.europa.eu/sites/eeas/files/action_plan_against_disinformation.pdf

1. Improving the detection, analysis and exposure of disinformation;
2. Strengthening coordinated and joint responses to threats;
3. Improving collaboration with online industry platforms to address disinformation; and
4. raising awareness and improving societal resilience.

The first pillar focuses on strengthening the strategic communication working groups of the EEAS, the Union Delegations¹⁵ and the Hybrid Fusion Cell¹⁶ of the EU, providing them with additional specialized personnel, such as experts in data mining and analysis, to process the relevant data, responding to the critics who complained of a lack of personnel and a budget underestimation to the working groups.

The second pillar allows Member States to designate, in line with their institutional configuration, a point of contact, ideally located within the strategic communications

departments. This contact point would share the descriptions and ensure coordination with all other relevant national authorities as well as with the commission and the EEAS. It is worth taking a more in-depth look at this pillar.

First, this pillar is an additional response to the demanding pressure to relocate disinformation working groups to the national level. The creation of networks between the EEAS and the national contact points marks a step forward in the EU communication strategy to improve the exchange of information, common learning, awareness, proactive messaging and research.

Second, the pillar establishes the Rapid Alert System (RAS) to facilitate the exchange of data and the evaluations of disinformation campaigns and to provide real-time alerts about disinformation threats. The EU institutions and the Member States will also focus on proactive and objective communication on the values and policies of the EU. The RAS is based on open-source information and will also be based on information from academia, fact-checkers, online platforms and international partners.

The system is capable of sharing instances of disinformation campaigns; facilitates periodic exchange of analysis, trends and reports; offers public information and awareness activities; provides reports of serious cases on online platforms; empowers researchers, fact-checkers and civil society; and ensures a coordinated response.

¹⁵ European delegations are bodies of EU delegates or representatives around the world: https://eeas.europa.eu/headquarters/headquarters-homepage/area/geo_en

¹⁶ The fusion cell shall receive, analyse and share classified and open source information from different EEAS, Commission and Member State stakeholders specifically related to indicators and warnings relating to hybrid threats: https://ec.europa.eu/commission/presscorner/detail/it/MEMO_16_1250



Established in March 2019 in conjunction with the elections, the system has also provided a notable effort to discredit hoaxes about coronavirus. Importantly, there are two core issues that at the moment are difficult to solve.

Social media companies have been subjected to greater pressure for their business models based on advertising and for allowing companies to access the personal data of users to target them with specific ads chosen for their interests and profile. When political interests are exposed, as in



the Cambridge Analytical scandal¹⁷, the impact on elections and civil society is direct.

The other issue concerns the relationship between Central European institutions and Member States. The approach to tackling disinformation throughout the EU “varies greatly across Member States”, as stated by the Council of the European Union¹⁸ only one month after the European elections. It points out that the responsibilities to address disinformation, at the national level, are “shared across a large number of ministries” and that the ways of fighting fake news “differ among Member States and depend on the human resources deployed and the technology used”.

Such disinformation campaigns “aim to undermine trust in democracy and in the EU, its policies and core values” the report states, adding that the objectives are to “exploit divisive public debates and create a climate of mistrust”.

While the value of the early warning system is well recognized by all European institutions, the Romanian Presidency of the Council observes that “it is important to realise that while elections may recede into the background in the short term, the basic

structures must be prepared and strengthened”.

Returning to the action plan, the third pillar refers to online platforms and industry.

The signatories of the code of good practices must quickly and effectively implement the commitments made under the code, focusing on urgent actions for European elections. This includes, in particular, ensuring the transparency of political advertising, intensifying efforts to close active fake accounts, flagging nonhuman interactions (messages spread automatically by “bots”) and cooperating with fact-checkers and academic researchers to detect disinformation campaigns and make fact-checked content more visible and generalized. The commission, with the help of the European group of regulators in charge of audiovisual communication services, will ensure close and continuous monitoring of the implementation by the commitments.

Ultimately, the fourth pillar focuses on the importance of raising awareness and empowering citizens. In addition to specific awareness campaigns, EU institutions and Member States will promote media literacy through specific programs. Support will be provided to national multidisciplinary teams of fact-checkers and independent researchers to detect and expose disinformation campaigns through social networks.

¹⁷ See https://en.wikipedia.org/wiki/Cambridge_Analytica

¹⁸ https://www.euractiv.com/wp-content/uploads/sites/2/2019/06/imfname_10910650.pdf



The independent company FactCheckEU¹⁹, developed by Libération and Datagif, involved 19 European media outlets from 13 countries.



The project was funded by the Poynter Institute, which brought together the European signatories of the International Fact-Checking Network (IFCN) to counter disinformation in the EU at a continental scale before the European Parliament elections in May 2019.

The company ceased operations just after the elections, but fact-checking on the elections, stories and answers to common questions about the elections are still available on the website. Through fact-checking, European political claims were analyzed, trying to address disinformation, providing a more in-depth view of electoral campaigns and increasing interest in democratic processes, both at the national and European levels.

ACRONYMS:

EEAS: European External Action Service EU:
European Union

HLEG: High-Level Expert Group on Human
Resources: Senior Representatives

IFCN: International Fact-Checking Network

MEP: Member of the European Parliament

RAS: Rapid Alert System

"Such disinformation campaigns "aim to undermine trust in democracy and in the EU, its policies and core values""

3

THE APPEARANCE AND RISE OF FACT-CHECKING: Reasons and modalities

Gabriele Giampieri
Pagella Politica



Introduction

Tracking the origin of a phenomenon is not always easy. In this particular case, it is a question of drawing a line between what has been commonly defined as journalism and the contemporary worldwide practice of fact-checking.

A fair question arises: “Is not every journalist a fact-checker in accordance with the ethics that sustain the professional category”?

Broadly speaking, the answer is yes. Journalism can be conceived as the production and distribution of reports on current or past events based on facts and supported with testing or evidence. The binding relationship with facts and evidence leaves little doubt about the underlying, preliminary and demanded effort of each journalist to check the facts before publishing a news item.

According to the International Federation of Journalists¹, which represents 600,000 media professionals from 187 unions and associations in more than 140 countries, each journalist must comply with a set of codes as described in the Declaration of Principles on the Conduct of Journalists (1954), known as the “Bordeaux Declaration”, which can be summarized in five main points:

1 <https://wenw.ifj.org/who/rules-and-policy/global-charter-of-ethics-for-journalists.html>



1. **Honesty:** Journalists must be truthful. It is unacceptable to report information that is known to be false or to report facts in a deceptive way to give the wrong impression;
2. **Independence and transparency:** Journalists should avoid covering issues in which they have a financial or personal interest that provides them with a particular benefit in the issue because this interest can introduce biases in their reports or give the impression of such bias. In cases where a journalist may have a specific financial or personal interest, the interest must be transparent;
3. **Fairness:** Journalists must present the facts with impartiality and neutrality, presenting alternative points of view and sides to a story where they exist. The distortion of the facts is unacceptable;
4. **Diligence:** Journalists must gather and present relevant facts to provide a thor-

ough understanding of the reported issue; and

5. **Accountability:** Journalists must be accountable for their work and be prepared to accept criticism.

The behavior of journalists is widely inspired and transferred locally to the national level throughout the world².

Fact-checkers inherited an ethical approach and structure to conducting their work. The substantial difference between journalism and fact-checking can only be restored by delineating the boundaries and internal work of fact-checkers.

² For example, see the deontological letter of the

Spanish and Italian journalist: https://web.archive.org/web/20080412103717/http://www.fnsi.it/Contenuto/Documentazione/CarteDeontologiche/Carta_dei_Doveri.htm;
https://fape.es/?option=com_content&task=view&id=101&Itemid=120



Post-Truth

Despite its recent use, much exploited by journalists and politicians during the recent referendum in the United Kingdom and the United States elections, both in 2016, when post-truth was awarded Word of the Year¹,

it is possible to trace the roots of the concept of post-truth far back into many philosophical adventures from relativism to epistemology and postmodernity. The Oxford Dictionary defines post-truth as «relating to or denoting circumstances in which objective facts are less influential in shaping public opinion than appeals to emotion and personal belief». What binds different thinkers and definitions on the subject is the change in rhetoric from a referential issue to a subjective and passionate subject.

The facts exist, without a doubt, but what the “news consumer” receives today is not a single institutional voice or a set of accredited press agencies but rather a polyphony of narratives.

The balkanization of news sources is a direct effect of the structure of the online environment, where no hierarchy or marker can guide the reader through the unlimited sea of information produced every second. The multiplication of sources can be seen as an advance toward a more democratic

1 <https://languages.oup.com/word-of-the-year/>



way of producing and sharing information to the extent that it complies with the idea that more sources means that a reader can reach a more complete and comprehensive understanding of a single fact.

Hypothetically, the structure of the internet guarantees the maximum extension of the “public debate”, providing a space where comparison, discussion, dissent, dialog and engagement can be expressed freely. For this reason, it is not a surprise that it is being blocked by political regimes interested in keeping information centralized and controlled.

However, there is an internal system within the global network that does not allow us to make public debate online a unique reality but rather an illusion that actually surrounds our own “space” as an isolated bubble that we involuntarily build ourselves with our choices and preferences, i.e., with our clicks.

The filter bubble³ is a state of intellectual isolation that supposedly can result from personalized searches when an algorithm selectively guesses what information a user would like to see based on information about the user, such as location, past click behavior and search history⁴.

Search engines, news aggregators and algorithms of social networks do not provide the same content or updates to all but share information taking into account the preferences, tastes and interests of consumers. Potential threats to my personal world view will be kept out of my information diet⁵.

Instead of connecting with a multidimensional space of opinions, versions of the truth and debates, filter bubbles isolate

3 <https://www.techopedia.com/definition/28556/filter-bubble>

4 Bozdag, Engin “Sesgo en el filtrado algorítmico y la personalización”. *Ética y Tecnologías de la Información*. 15 (3): 209–227

5 Lorusso, Anna Maria “Post-Verdad”. Laterza, Bari, 2018 (own translation).

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us in an information management regime where authorities, credibility, dissonant voices, and oppositions are eliminated by our own online behavior.

The web is established as an interspersed space of participation and possibilities; however, the algorithms create a guardian of the information that works without recognizable signatures or profiles, making a false impression of contact with reality.

Fact-checking has been born as a necessity of this mechanism, a valuable reporter and evaluator of sentences (political, scientific, and social) that exploit freely accessible

information such as numbers, figures, and other sources to verify the credibility of information.

Although the efforts to check facts will lead - as we will see in the following paragraph - toward a true/false question, their reason for being lies in the multiplication of sources of information - recognized as both the starting point of the issue and an asset - and the absence of regulating the selection of such a polyphony of truths that leads, paradoxically, to an artificial accumulation of truths that the reader builds around him or her, inevitably contaminating his or her worldview.

"Fact-checking has been born as a necessity of this mechanism, a valuable reporter and evaluator of sentences (political, scientific, and social) that exploit freely accessible information such as numbers, figures, and other sources to verify the credibility of information."

a) Fact-checking organizations

The new millennium has seen the emergence and rapid global spread of a new professional figure: the independent political fact-checker.

The first organizations dedicated to publicly evaluating the truth of political claims appeared in the early 2000s, and in the last decade, independent fact-checkers have emerged in more than 50 countries covering all continents. According to the most trustworthy global count, 113 of these groups are active today. More than 90%

were established after 2010; approximately 50 were launched in the last two years alone⁶.

⁶ For a list of the top fact-checking agencies in the world, see the International Fact-Checking Network: <https://ifcn-codeofprinciples.poynter.org/signatories>



Organizational types

There is no single definition of fact-checking organizations that summarize their basic characteristics. There is a variety of approaches among scientists to determine and describe these organizations.

While a minority of permanent fact-checkers in Europe are affiliated with an established media company, legacy media remains the dominant source of verifying political facts. This is especially true in Western Europe, where newspapers and broadcasters have incubated the trend and provide their most visible examples.

Fact-checkers based on traditional newsrooms have a tremendous natural advantage in terms of scope and resources. Additionally, they continue to depend on the editorial interest and financial support of their media matrix, and many have gone elsewhere when that support ended.

Other assets can be mentioned. Fact-checking teams affiliated with media companies

can gather audiences that far exceed the reach of most independent fact-checkers.

A second key benefit is the ability to take advantage of the editorial resources and infrastructure of a larger news gathering operation. Several newsrooms have made impressive commitments to fact-checking. At Le Monde, Les Décodeurs began as a two-person blog but now manages a staff of ten who publish approximately 15 fact-checks per month, in addition to explanatory and analytical stories.

Many examples of this type of organizational management can be found in Western Europe: Désintox⁷ of Libération; The Décodeurs⁸ of Le Monde; FactCheck⁹ of Channel 4 News; El Objetivo in Spain¹⁰ of

7 <https://www.liberation.fr/desintox,99721>

8 <https://www.lemonde.fr/les-decodeurs/>

9 <https://www.channel4.com/news/factcheck>

10 <https://www.lasexta.com/programas/el-objetivo/>

La Sexta; TheJournal.ie¹¹ in Ireland; Reality Check¹² of The Guardian and the BBC, which has been publishing a fact-checking column within its online magazine on the Brexit referendum; and Der Spiegel¹³, which has its own research department that deals with fake news.

Another type of fact-checking organization is based on the “NGO model”, as described in “The rise of fact-checking sites in Europe” by Graves and Cherubini (2016). Independent sites supported by NGOs are the norm throughout Eastern Europe, although there are also notable examples in the United Kingdom and Italy. These organizations tend to partner with the media, and most employ some reporters. Additionally, independent fact-checking media are free from the editorial and commercial limitations of established media companies, and many have proven to be quite lasting.

Many of these media are projects of established NGOs that are concerned in general with the strengthening of democratic institutions. In the Balkans, for example, a network of NGOs founded in the wake of civil conflicts in the 1990s has focused on fact-checking in recent years. (Istinomer¹⁴ from Serbia; Zašto ne from Bosnia?¹⁵ (Why Not?), a peacebuilding group started with

student activists in 2002; Vistinomer¹⁶, of the Macedonian NGO Metamorphosis, which began as an affiliate of the Open Society Foundations in 1999; and more recently Faktograf¹⁷, in Croatia, originally founded in 1997 as a citizen election monitoring group).

A similar pattern can be seen in the post-Soviet states. FactCheck Georgia¹⁸, founded in 2013, is a project of Georgia’s Reforms Associates (GRASS), a “policy watchdog and group of experts” established by a group of former government ministers and public officials the previous year. In Ukraine, two means of fact-checking have been recently launched by civil society groups that emerged from the “Maidan Revolution” of 2013.

Other outlets are completely independent or are a designed charity or within an NGO. Full Fact¹⁹ of the United Kingdom, founded in 2010, is a registered charity with a board of trustees that includes journalists and members of the country’s main political parties. Others are small civil liability companies (Pagella Politica de Italia)²⁰.

Many independent fact-checkers rely on formal or informal links with universities. The Demagog²¹ of Slovakia was founded in

11 <https://www.thejournal.i.e./>

12 <https://www.theguardian.com/news/reality-check>

13 https://www.spiegel.de/thema/fake_news/

14 <https://www.istinomer.rs/>

15 <https://zastone.ba/>

16 <https://vistinomer.mk/>

17 <https://faktograf.hr/>

18 <https://factcheck.ge/en>

19 <https://fullfact.org/>

20 <https://pagellapolitica.it/>

21 <https://demagog.sk/>



2010 by a pair of political science students at Masaryk University in Brno and quickly spread to sister sites in the Czech Republic and Poland.

The three operations depend largely on volunteer students, who acquire research experience and, in some cases, obtain class credits at their universities. Faktabaari²²,

a Finnish site launched in 2014 by an NGO called the Open Society Association, has relied on student journalists from Haaga-Heilia University. In Ukraine, students and professors of the Mohyla School of Journalism in Kyiv founded the “counterpropaganda” site StopFake²³ in 2014 in response to the Russian occupation of Crimea.

22 <https://faktabaari.fi/in-english/>

23 <https://www.stopfake.org/en/about-us/>

"independent fact-checking media are free from the editorial and commercial limitations of established media companies, and many have proven to be quite lasting"

Methods

According to surveys and research conducted by Graves and Cherubini (2016), a number of important differences in approach can be identified. These variations reflect contrasts in the mission and identity of fact-checkers as well as the wide range of political environments in which they operate.

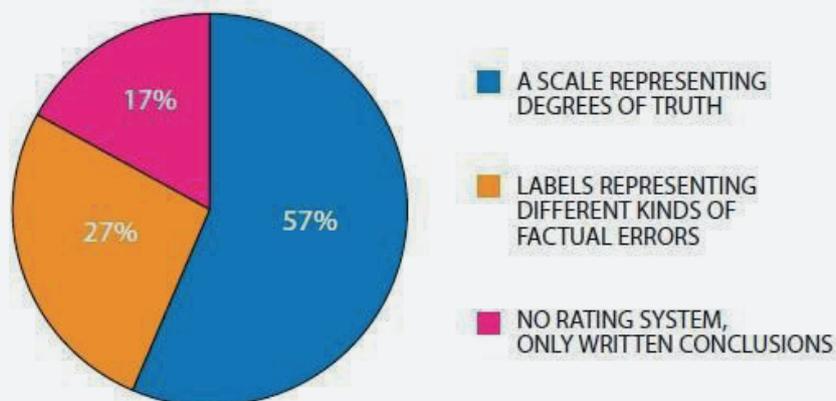
Rating

An important division that does not seem to trace organizational or professional limits refers to the use of rating systems to evaluate political claims. Sixty percent of European media outlets indicated that they rate the statements along an ordinal scale that represents degrees of truth.

Just over a quarter assign categorical labels to claims but do not rate them on a scale. For example, Demagog.cz initially based its rating system on its Slovakian predecessor, which assigns one of four labels to each statement: true, false, misleading or unverifiable. A new category “inaccurate” is being evaluated.

A handful of fact-checking organizations completely refuse any use of ratings. Worldwide, one-fifth of fact-checkers do not use any rating system²⁴.

²⁴ Tumbas, Querubines; “El auge de la verificación de datos en Europa” 2016; Instituto Reuters; Universidad de Oxford





b) Selection of notifications

Fact-checkers also vary in their approach to selecting claims for investigation. Like their peers worldwide, most of the fact-checking organizations in Europe focus their efforts on political actors

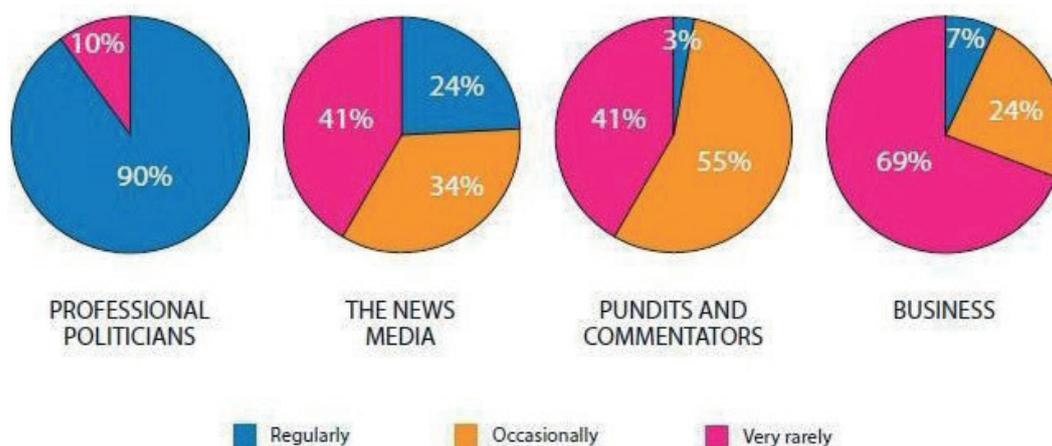
Ninety percent indicated that they regularly review the claims of politicians; most media outlets address journalists, experts or other public figures only occasionally or not at all. However, StopFake of Ukraine focuses almost exclusively on the media, and sites such as Full Fact, Faktabaari of Finland, FactCheckNI of Northern Ireland and Vistinomer of Macedonia systematically fact-check the media.

In total, just under a quarter of the organizations surveyed regularly address the media, and another third do so occasionally.

While all fact-checking organizations scan the news to find political statements to verify, several factors seem to inhibit a more robust fact-checking of the media. First, many organizations indicated that limited resources and personnel narrows their focus on politicians. Second, reviewing the



"reviewing the media also carries particular risks because for professional journalists, it can be uncomfortable to subject their colleagues to scrutiny"



media also carries particular risks because for professional journalists, it can be uncomfortable to subject their colleagues to scrutiny²⁵.

Some organizations adopt a methodical approach to maintaining political balance. Do ruluk Payı, which focuses on the claims of the members of the Grand National Assembly of Turkey, prominently shows the

fact-checking part directed at each political party along with the party’s current proportion of parliamentary seats. The statistics page of the site also includes graphs that detail the performance of each party, as determined by the site’s five-point truth scale, which is compiled in monthly reports on the state of political discourse.

Full Fact, for its part, explains that before big elections, it evaluates its resources to decide which main parties it can focus on; for 2015, these were the Conservatives, Labor party, Liberal Democrats and UKIP. The group also guides its core coverage areas

²⁵ Tumbas, Querubines; “El auge de la verificación de datos en Europa” 2016; Instituto Reuters; Universidad de Oxford

based on the Ipsos MORI index of the main issues facing Great Britain.

The Demagog sites in Slovakia and the Czech Republic place the greatest emphasis on selecting claims in a way that allows statistically valid comparisons between parties. Instead of choosing statements from the news of the week, the two media outlets focus on televised debates that are broadcast every Sunday and are an important political institution in both countries. (In contrast, the Polish version of Demagog draws statements mainly from political talk shows that are broadcast on weekday mornings.)

To avoid selection bias, fact-checkers aim to verify each discrete factual statement made during the debates. On the Slovakian site, for example, a senior analyst examines the transcripts of the debate as soon

as they are available to identify claims and assign them to a group of volunteer checkers through a content management system (CMS) designed to measure degree of truth. Each checker has 24 hours to verify approximately five or six statements so that the results can be published before Tuesday.

Before important elections, when debates are held more frequently, the operation could add up to 500 claims to its database over two or three weeks. That database now includes more than 12,000 fact-checks, most of them quite concise, categorized by speaker, party, topic and level of accuracy.

The researchers plan to use these data to study long-term changes in public discourse.



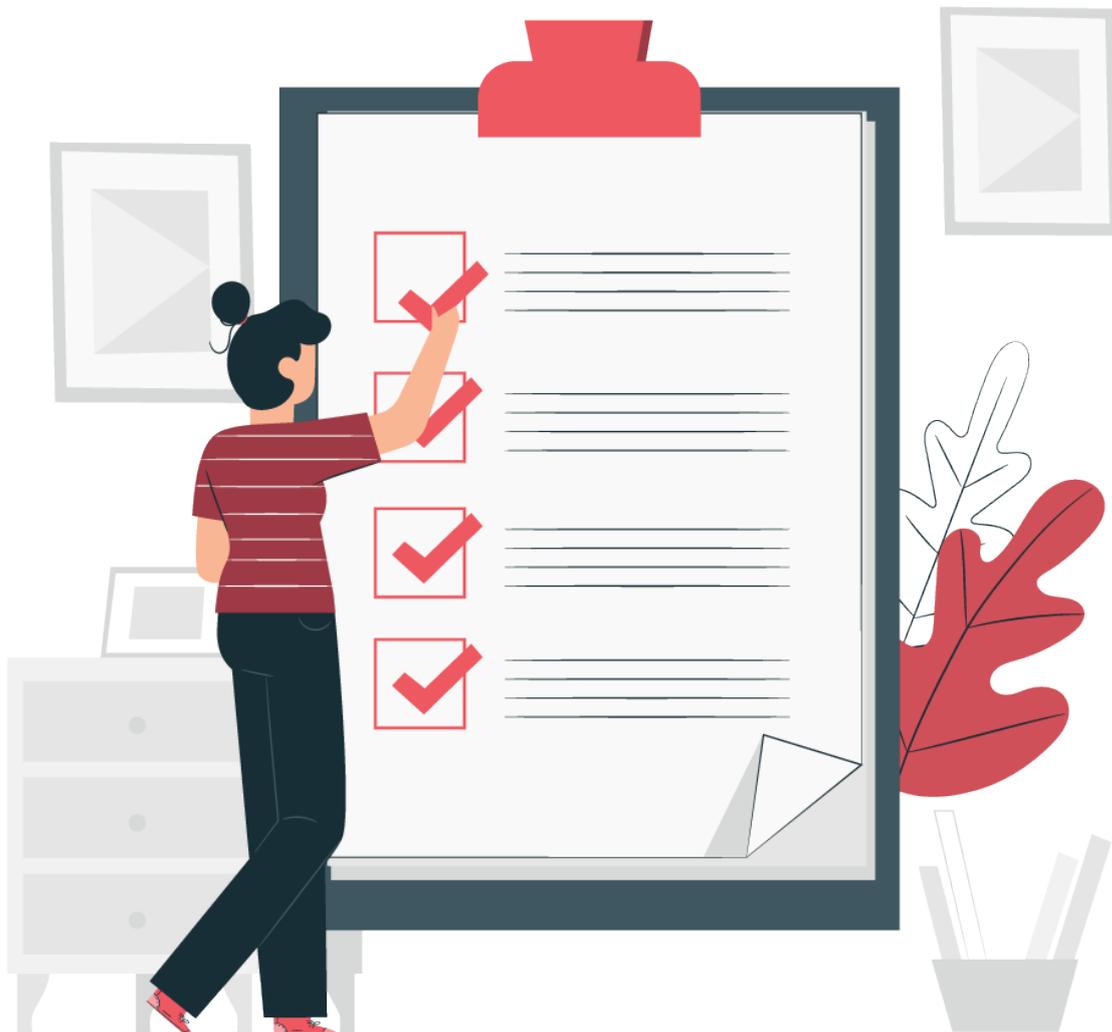
Evaluation

Using the survey and research results outlined in “Performance analysis of fact-checking organizations and initiatives in Europe: a critical overview of online platforms fighting fake news” published in the framework of the Horizon 2020 project “Compact; Social Media and Convergence”²⁶, it is possible to summarize some crucial and updated

characteristics related to the evolution of fact-checking in Europe:

- Personnel: The number of people who are involved in the fact-checking process varies greatly among organizations (from 3 to 30). However, there has been no decrease in the staff seen over the years, and the majority (~ 64%) of the organizations see their work increasing. This indicates a continuation of issues and a need to step up efforts to track the issues that arise.

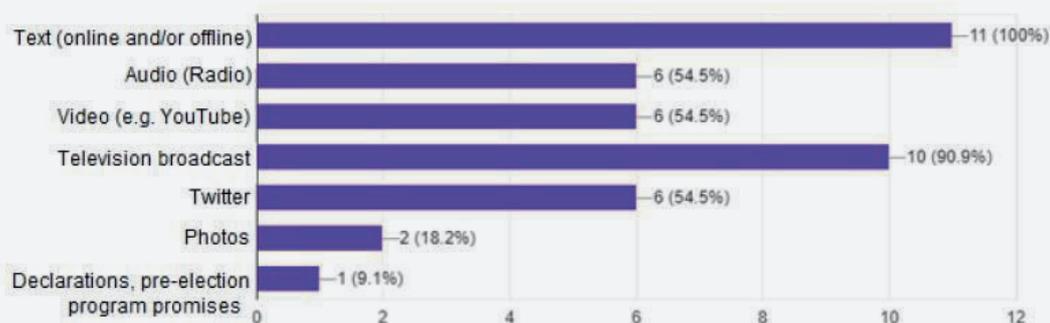
26 <http://compact-media.eu/>



- Users: If we consider user distribution throughout the duration of a given project, most projects have a similar rate of expansion of their user base, and older projects have a significantly larger audience. This, on the one hand, dictates the requirement of having adequate dissemination practices adjusted to the type of user base, but on the other hand, it reveals an opportunity to exploit user comments to quickly detect, repair and improve a large set of possible performance issues.
- Number of fake news items detected: The numbers depend largely on the political situation and the specific political events in a given country (elections, campaigns, etc.). Clearly, this number also depends on the type of content analyzed by the fact-checking organization and how embedded this content is among the sources of information in that context. However, there is still a significant division between organizations with respect to textual and au-

diovisual content. In other words, most of them “specialize” in a single type of content. Therefore, increasing and adjusting efforts in this regard can result in significant improvements in the rate of detection of fake news and, therefore, in the effectiveness of fact-checking organizations.

- Automated exploitation of ICT tools: All the metrics discussed thus far can be directly related to the methodology used by organizations in the performance of their work, such as the involvement between the possible services/automated tools used to fight fake news and the human effort invested in the process. In this sense, only three organizations reported using human and computational effort. However, it is not clear which aspect of the fact-checking process is covered by human experts and which is reserved for computational techniques. However, it is clear that the extent to which automated services are used in these projects is very low.

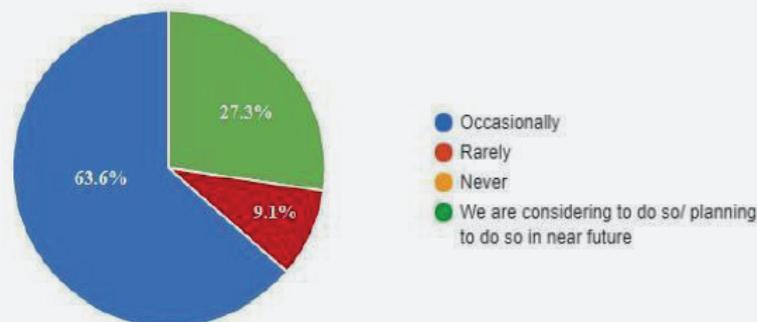




“The numbers depend largely on the political situation and the specific political events in a given country (elections, campaigns, etc.)”

- Review of tools and methodologies: It is not only important to have the appropriate tools but also to review them and allow them to evolve along with the changing environment. As such, the frequency at which tools used were reviewed was explored, and it is clear that most organizations do pay attention to reviewing tools, but there are still a significant number of organizations that have not yet considered it. Taking into account that this is a crucial requirement for effective fact-checking, raising awareness of these performance-related issues seems a necessity at the European level.

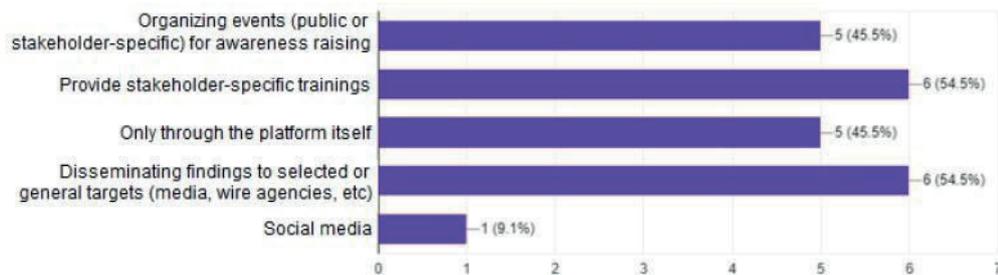
- Selection of target sources: Most organizations select their sources and target media according to predefined criteria, the most common of which is the “public interest in information”. In addition, they use some mechanisms to assess information sources (credibility, independence, trustworthiness, etc.), mainly to evaluate the independence of their information sources (for example, news articles, political speeches, tweets, etc.); however, there are still some that do not perform such checks.





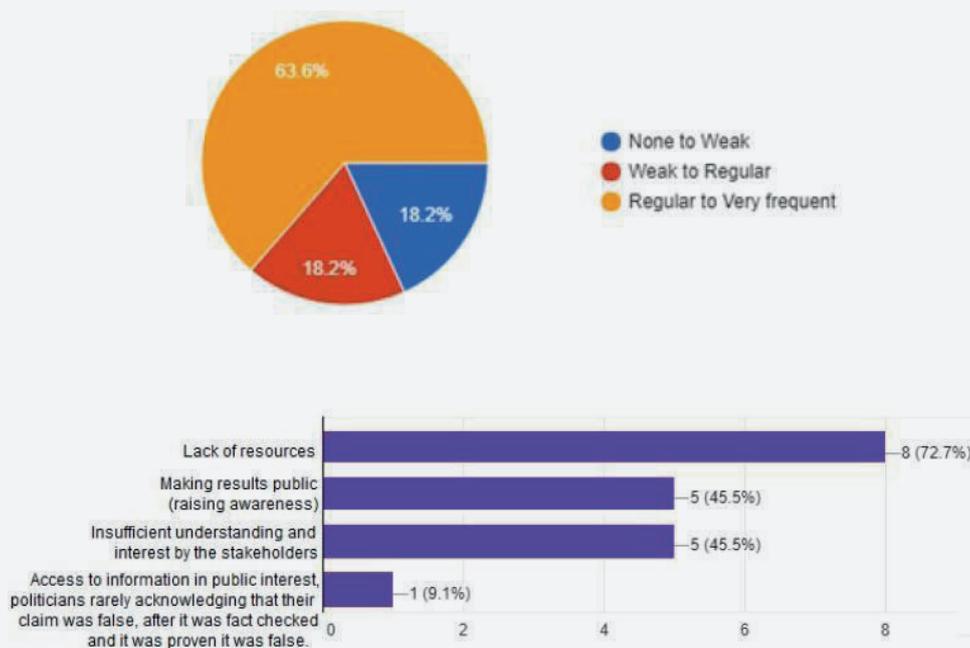
- **Impact prognosis:** Many of the organizations also provide evidence of the impact of setting an agenda (for example, legacy media that refer to the results of their work) as part of their effectiveness evaluation. This fact speaks to the importance of existing fact-checking efforts to complement current strategies to address information clutter. Almost all organizations reported that they have noticed a high dependence between the number of fake news items and specific public events (elections, campaigns, etc.), which makes them direct witnesses of the interaction between the offline world and the online world in a particular information context.

- **Stakeholder involvement:** A vision of the nature of interactions, the means of disseminating work and the results and direct collaboration with stakeholders has been offered. Interestingly, social networks are minimally exploited to engage with stakeholders interactively. Only one of the organizations reported using social networks for this purpose. Although social platforms are used to promote and disseminate the work of fact-checking organizations, an interactive mode of promotion could be an obvious point where improvements can be sought and achieved.



- Collaboration with other fact-checking initiatives: Almost all organizations reported on the efforts used to collect user comments on one or more aspects of their work. Despite their apparently identical work, there are organizational and operational features by which these fact-checking organizations can differ greatly. For example, some of them only deal with discrediting political statements. Others only check the veracity of tweets, and some only deal with visual content. However, there is strong collaboration between the majority of European fact-checking organizations reported by survey respondents.

To gain an understanding of the difficulties that organizations face in achieving their performance goals, the greatest challenges and problems that hinder achieving these goals have been investigated. In this regard, the lack of resources and the insufficient awareness of the interested parties about the issues related to the clutter of information were the main problems that affected the workflow of fact-checkers. The latter leads to the need to close the gap between organizational objectives and the public understanding its own role in meeting those objectives. To achieve this, it may also be necessary to involve external efforts in this process of awareness to give more credibility to the fact-checking movement and increase the publicity of the related issues.





4

THE DIGITAL ECOSYSTEM AND YOUNG PEOPLE: Disinformation and Beyond (cyberbullying, hate speech...)

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Introduction

The European Year of Youth 2022 (#YEYS2022), dedicated to the youth of the continent finding spaces to address their future, on issues such as ecology, inclusion and the digital world, was key to establishing a series of recommendations on disinformation.

The students between 16 and 18 years old who participated in different conversations and virtual debates agreed on some actions for the key actors of the European community to face a phenomenon that, they confess, already affects them.

In summary, young people call for launching information campaigns that raise awareness about the dangers of disinformation

and how fake news can easily polarize and incite hatred. They also demand training to learn to spot and combat fake news. In addition, they propose the creation of a platform that tracks sources in the event that propagators of false information are identified, without undermining freedom of expression but ensuring a transparent and safe environment for content consumption. They advocate the development of a



more efficient technology that allows them to check facts and access reliable sources. Finally, they appeal to social networks for their role as mediators because their algorithms could contribute to detecting fake news.

All these demands of young people are evidence that they are truly concerned about the effects of disinformation on them and

are a direct challenge to those of us who belong to the world of education, research and the media. For this, the first step to provide the most appropriate training, one of the objectives of the European project SPOTTED, is to first understand how young people relate to the information.

1. Youth on the network: some coordinates to explore the issue

1.1. How do young people behave in digital environments?

To understand how our students navigate the internet, we must pay attention to the way in which they communicate, the time they spend connected and how they use the internet, that is, their tastes and interests. First, young people mostly develop into prosumers: consumers and creators at

the same time, that is, they consume digital content and create it (such as series, podcasts, photographs, streaming videos, etc.). Twenty-eight percent of young people aged 15 to 24 years publish their own content on social networks (Eurobarometer, 2022). Second, this activity is carried out in a multimedia ecosystem in which young people have access and are exposed to a multitude of resources, sources of information, formats, narratives and environments in which to engage; therefore, it is necessary to as-



"Regarding the exposure of young people to the consumption of false or misleading content, they often confess having encountered misinformation and fake news, although they also recognize not knowing it when exposed to it "

sess the increasing difficulty to which they are subjected when developing their skills and competencies in fact-checking information. In addition, immediacy is a key factor; the vertiginous nature of the connections and that of content consumption prevents them from truly reflecting on what they create, see or share on the web, i.e., they have tiny margin left for critical thinking. Finally, although their main interests are entertainment and information, some studies carried out in different European countries note that young people do not question the content or the source from which the information they find comes. This does not mean to imply that young people do not assess what they consume, but it does reveal that they need training, spaces for reflection and tools to be able to swiftly and critically judge and analyze information.

Regarding the informational diet of young people, they value the news that they read and are especially interested in those issues, media or people who connect with their interests. The Eurobarometer of July 2022 reveals that these users, between the ages of 15 and 24 years (46%), follow the news from their smart mobile devices through social media platforms and blogs and that they are, with very few exceptions, not willing to pay for these services. Interestingly and directly related to the phenomenon of disinformation, young people more often look at news articles shared by a friend or family member and by the influential people they follow, and it is precisely that relationship of trust that makes them more vulnerable to harmful content because no one believes that a friend or relative, or someone they consider influential, intends to deceive or confuse them.

Among their favorite spaces to interact and consume this content are Instagram, Facebook, WhatsApp, YouTube, TikTok and Snapchat.

Another interesting fact related to news consumption is the importance given to an attractive headline and format; images (photographs and videos) are more persuasive than text.

Regarding the exposure of young people to the consumption of false or misleading content, they often confess having encountered misinformation and fake news, although they also recognize not knowing it when exposed to it. Paradoxically, they trust their abilities to recognize disinformation. This self-perception in their own abilities to distinguish between real news and fake news decreases with age and increases with level of education. That is, compared to those over 55 years, young people aged 15 to 24 years, 68%, feel confident that they can recognize disinformation. However, studies such as that by Nygren and Guath (2019), who observed the ability of 480 students to differentiate truthful, biased or fictitious content, showed that young people considered themselves capable of distinguishing different information; however, in reality, they did not have tools to verify the type of information they

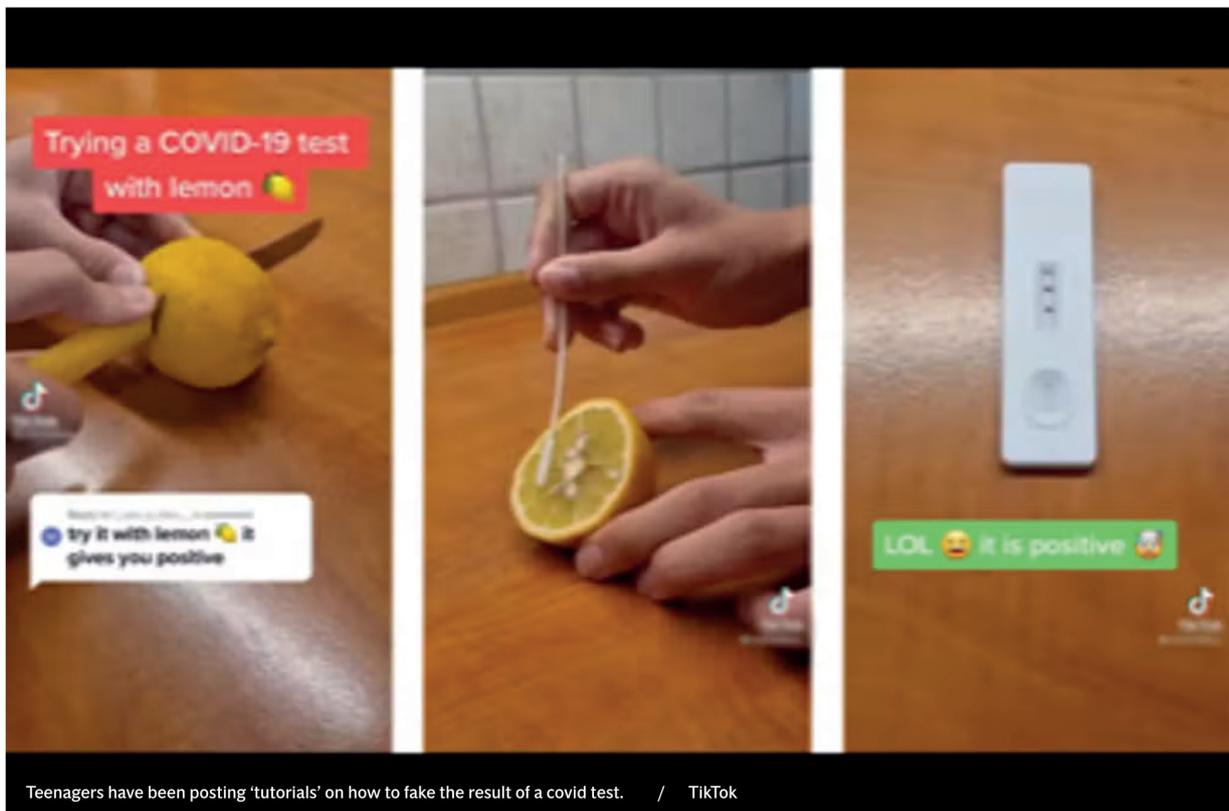
found. The latter reveals, therefore, the importance of education and age as protective factors; early literacy favors the acquisition of defense mechanisms (Newman and Zhang, 2020).

Below is an example of a story that went viral among young people through TikTok. This video warned of the lack of reliability of antigen tests to detect the COVID-19 virus. Juices, such as from lemons, were used to generate positive test results. In this same video, this deceptive trick was promoted as a way to skip class (claiming to be sick). This type of content is consumed daily and shows a series of risks when distinguishing what is true from what is not. In this case, the deception is three-fold. First, a medical test is faked; second, young people are invited to deceive a third party (their teachers); and third, viewers are deceived by the content of the video itself because the effects of the juice on the test were not true.



TikTok crackdown on teens sharing tips on faking Covid-19 tests

VIEW COMMENTS



TikTok video in which an antigen test is faked. Source: Evening Standard

1.2 Difficulties and challenges of online exposure for young people

As teachers, we are aware that all of the above has consequences in the learning process of our students because when they have to do a task or need help and reinforcement to understand something, they turn to the internet and their friends, classmates or family members. We can guide them on how to get the most out of those spaces and sources to which they turn, how to do it safely, and how to select the highest quality and most reliable information.

In addition, in the classroom, we find other situations derived from the involvement of young people on networks, like their individual well-being. There are also several studies that warn about the insecurity they face; for example, girls feel threatened by misinformation because they feel that the

false content that circulates tries to discredit or humiliate them, making them feel stressed and discouraged (Plan Internacional, 2021).

In some countries, reports have focused on cybersecurity, polarization and hate speech, providing evidence for risks related to the violation of privacy, the right to privacy and honor, data theft and other fraud, closely linked to intense activity on social networks and ignorance of the rights and duties of being on the internet or online shopping (Qustodio, 2022).

Finally, in social and political terms, disinformation poses a challenge for democracy; we have witnessed clear processes of destabilization through the polarization of young potential voters (Sánchez, 2021; McKay and Tenove, 2021), and schools have not been oblivious to this reality. Let us look at the most common risks.



"disinformation poses a challenge for democracy; we have witnessed clear processes of destabilization through the polarization of young potential voters"

(Sánchez, 2021; McKay y Tenove, 2021).

1.2.1 Information privacy

The issue of data privacy has been reverberating in recent years because of how certain companies have used people's personal information. Given the controversies that have arisen, there are tools that we can use to train our students on this issue and make them aware of what happens when they share their data.

Meta Platforms (a company that includes Facebook, WhatsApp and Instagram) has increased its corporate might by accessing more personal information about its users in recent years. The main problem has been the [bewilderment and distrust](#) at feeling powerless to question the strategies of large companies in regard to our photographs, videos or private conversations.

To increase its transparency, Meta Plat-

forms has launched an online laboratory that allows access to resources designed for young people on the management of personal information and privacy. Here, a series of assumptions are shown that summarize [young people's concerns](#) about this issue and the [global initiatives to tackle them](#).

Privacy is linked to digital identity, that is, the profile that young people create from the consumption and creation of content on social networks, but identity on the internet is not only a profile in Google or iCloud, in which a username and some other personal data are provided, but also any comment, photograph or text shared or produced on the web. For our students, having accounts on different social networks and therefore different identities that are related to each other, exposes [who they are and what they like to do](#) to their contacts and to strangers.

In educational centers, it is the task of teaching teams to educate young people about the risks of exposing too much personal information or showing certain information that defines us (i.e., opinion articles, posts, real-time location, blog entries, tweets, etc.). From educational centers, teachers can propose dynamics such as role play, case studies or active and interactive inquiry that show young people the employment and social repercussions of privacy. Specifically, it is important to show the risks of sharing news or opinions that are unverified and to explain to students that an unfounded personal point of view is also associated with digital identity.

In short, it is necessary, cross-sectionally in different subjects or coursework, for students to understand that what they publish online leaves their mark and that they cannot control how this content is used by other people, outside their will, or how it will define them in the near future when perhaps they no longer identify with those thoughts.

1.2.2. How to address cyberbullying and hate speech on the internet

Virtual harassment or cyberbullying has taken hold in schools. If we had to define cyberbullying to detect if it occurs among

our students, we would include the following:

- Behaviors, individual or group;
- Seeking to harm others in virtual environments (social networks, mostly);
- Being produced by sending messages that imply aggressiveness. This bullying involves insults, humiliation, threats and even [digital identity](#) theft;
- [Socioemotional effects](#) on the victim;
- Impacts on adolescents who have fewer social skills or [weaker self-control over their actions and emotions](#); and
- More prevalent in an [unstructured family environment](#).

Our interventions as teachers include protecting the harassed and preventing bullying behavior by dissolving the support that the bullies receive. This task is easily extrapolated to more general curricular subjects, for example, working on expression and communication skills; additionally, it promotes empathy-based dynamics and generates class exercises on case studies to place the bullies and their victims in [cyberbullying situations that happen frequently](#) and that, for the most part, involves [verbal abuse and mechanisms to exclude](#) others. There are multiple examples of cyberbullying in Instagram posts or in the comments of TikTok videos.



"working on expression and communication skills; additionally, it promotes empathy-based dynamics and generates class exercises on case studies to place the bullies and their victims in cyberbullying situations "



If we shift to [data provided in recent years](#), in secondary education and high school students, cyberbullying occurs especially in the first three years of secondary school; girls were the victims in 64.7% of cases, and boys were the bullies in 80% of cases. These data can help us detect and evaluate the profile of our students in cyberbullying situations and think about such patterns: Is there interest in delegitimizing the other person in debates or discussions? Are the same people being constantly criticized? What causes bullies to threaten or intimidate?

This trend is accompanied by the existence of impunity for the acts of bullies in virtual environments, for example, responding to a comment on an Instagram photograph or making fun of a tweet: there is no direct and resolute penalty for these behaviors. Young people perceive they are invisible in what they do precisely because there is no immediate penalty; in addition, this invisibility is combined in many cases with anonymity (fake accounts exclusively for

cyberbullying), which allows them to continue harassing without short-term consequences.

The program [Asegúrate](#) discusses the presence of cyberbullying on the most popular platforms among our students, such as YouTube, Instagram or TikTok, and shares the following useful information for teaching teams:

- The characteristics of the environment modulate the behavior of cyberbullying; that is, the openness that the digital platform shows to curb harassment will determine how far young people go in cyberbullying.
- Victims have few resources to escape cyberbullying, which allows it to be perpetuated in the long term. It is necessary to work on impulsivity and control of one's own action and reactions to other people's discourse, both that of aggressors and the harassed.
- Cyberbullying is regulated by law, and there are specific articles that penalize



the behaviors it entails, such as insults, crimes against privacy, identity theft or disclosure of secrets. We must show this to the bullies and the harassed.

1.2.3. Fear or addiction

Associated with all of the above, a phenomenon known as fear of missing out (FoMO) has also emerged: fear of missing out on important experiences or fear of feeling excluded. FoMO is related to the need to always be connected so as to not lose presence on social networks. The more time young people spend online, the higher their level of FoMO; that is, the more they connect, the more they feel the need to not miss out on anything that surrounds them.

Teachers can work on this fear or FoMO, as involvement in the consumption and creation of information by young people can be used in the classroom to work on issues

such as ethics, politics, economics, etc. The platforms allow social groups to drag out the individual opinions of our students in many cases, and that captures the attention of adolescents by creating [digital conversations](#). Students who begin to interact virtually are exposed to the opinions of outsiders, who may be admired figures, and this leads them to consider their position toward the issue in question, to be able to participate and to [get involved to varying degrees](#).

In short, preferences regarding the use of the digital environment vary quite quickly, as apps are introduced that change the way in which students consume. Therefore, schools, families and research can provide tools to help future responsible digital consumers. We describe some proposals in the following section.

2. Media and information literacy (mil) against disinformation

After 20 years dedicated to the development of initiatives and projects aimed at improving the quality of media and the shaping of a public opinion, free and mature, against the consumption of the messages they produce,

the Council of Europe understands that MIL is the most powerful tool for “people to develop cognitive, technical and social skills and abilities that allow them to effectively access and critically analyze media content; to make informed decisions about what media they use and how to use them; understand the ethical implications of the media and new technologies, and communicate effectively, including through the creation

of content” (<https://www.coe.int/en/web/freedom-expression/media-literacy>).

This MIL brings together three different dimensions: information literacy, media literacy, and ICT and digital literacy. It is a model that can guide interventions by teachers and educators in addressing information with young people from an ethical and critical point of view. This model was developed by [UNESCO](#) and is based on the develop-



ment of a series of competencies and attitudes toward communicative environments to coexist democratically and peacefully in the digital world. Specifically, in relation to disinformation, it poses two challenges: determining the attractiveness and effectiveness of fake news (knowing its forms and appearance) and preparing young people to know how to identify fake news and defend themselves from its harmful effects.

The MIL proposal provides teachers with possible interventions in three areas, as seen in the following diagram. These three areas guide teachers to understand how young people interact, how they learn on networks and how they continue to be “hooked” to it, thus fostering classroom learning that is better adjusted to the reality in which we live.

In a breakdown of the intervention areas of the MIL model, in step 1, teachers can explore the possibilities that networks offer

so that they can be informed and understand its internal functioning. In the classroom, this translates into working on how posts are published on social networks, the relationship between marketing and advertising and the lives of our students, for example, through influencers.

At the second level, teachers can guide young people through practical cases or analysis of tweets, Instagram posts or TikTok videos to detect anomalies in the news or digital press headlines as well as work on identifying patterns of content in these media: What process does a digital newspaper follow to publish a news item?

Finally, in the third step, teachers can teach students how to create truthful and critical content. For example, the following recommendations are proposed by the [Northwest Alliance for Responsible Media \(NWARM\)](#).

2.1. How can media education prevent the spread of fake news?

If we previously started by saying that our students are prosumers, now we must add that we all are companies, institutions, nonprofit organizations, governments, advertisers, etc. This places us in an overwhelming informational context, in which it is truly complex to find and interact with quality content and differentiate it from those that are interesting or harmful or that simply do not contribute anything but only generate noise or try to disorient us. The media literacy guide for educators and learners published in 2022 by UNESCO and hosted in its digital library under the title [Think Critically and Click Wisely!](#) proposes a curriculum to which we should aspire for mindful and safe media consumption.

The MIL curriculum of UNESCO includes a complete module—the 4th, called “Media and information literacy competencies to tackle misinformation, disinformation and hate speech: in defense of truthseeking and peace”, with concepts, explanations, advice and exercises to work on in the classroom. The content of this module is divided into five units designed to acquire those skills related to searching for information, identifying the types of misleading content that exist and protecting ourselves from their most familiar effects (distrust, polarization, intolerance or hate speech, relativization of facts or post-truth and conspiracy). This pedagogical proposal is accompanied by other digital resources and recommendations for group exercises that combine methodologies ranging from games to case studies.

1. Knowledge and understanding of the media for democratic and peaceful coexistence
2. Evaluation of the information and its sources of origin
3. Production and use of media and information



The following are key ideas from UNESCO and other [international recommendations](#) for working with students:

- Talk about the importance of truth and freedom of expression;
- Work together with information professionals, librarians and historians to learn to differentiate texts, evaluate reliable sources and identify prestigious authors;
- Use real cases and role play so that students can better understand the effects of deception and experience its consequences;
- Illustrate, with examples, the variety of disinformation content that young people may face;
- Discuss privacy and the information that the algorithms reveal and question them about their habits related to the security of their accounts and searches;
- Address the issue of self-esteem and the construction of identity on social networks and in other spaces of interaction to confront hate speech and cyberbullying. This implies promoting healthy relationships among students as well as helping them form their digital identity. [Including the MIL model cross-sectionally](#) to teaching-learning can be a good

starting point;

- Ask about the so-called influencers or people of media influence. Who are the people who guide their consumption habits, tastes, interests and even actions and lifestyles?;
- Participate responsibly. The ease of intervening in digital conversations (forums, channels, social networks, etc.) and of interacting with other users so simply encourages young people to express their opinion any time they like and immediately, giving rise to “anything goes” from an argumentative point of view because proximity and relaxed language prevail. This relaxation is transferred to the classroom, and teachers must know how to manage it; and
- Perceived self-confidence or the [Dunning-Kruger effect](#) is an over-confidence in our own abilities, to which adolescents are not strangers. This occurs when we overestimate our abilities to do something or our knowledge about a subject or when we believe that we cannot be deceived. With respect to disinformation, this sense of security can make young people more vulnerable because they may lower their guard when they need to judge information.



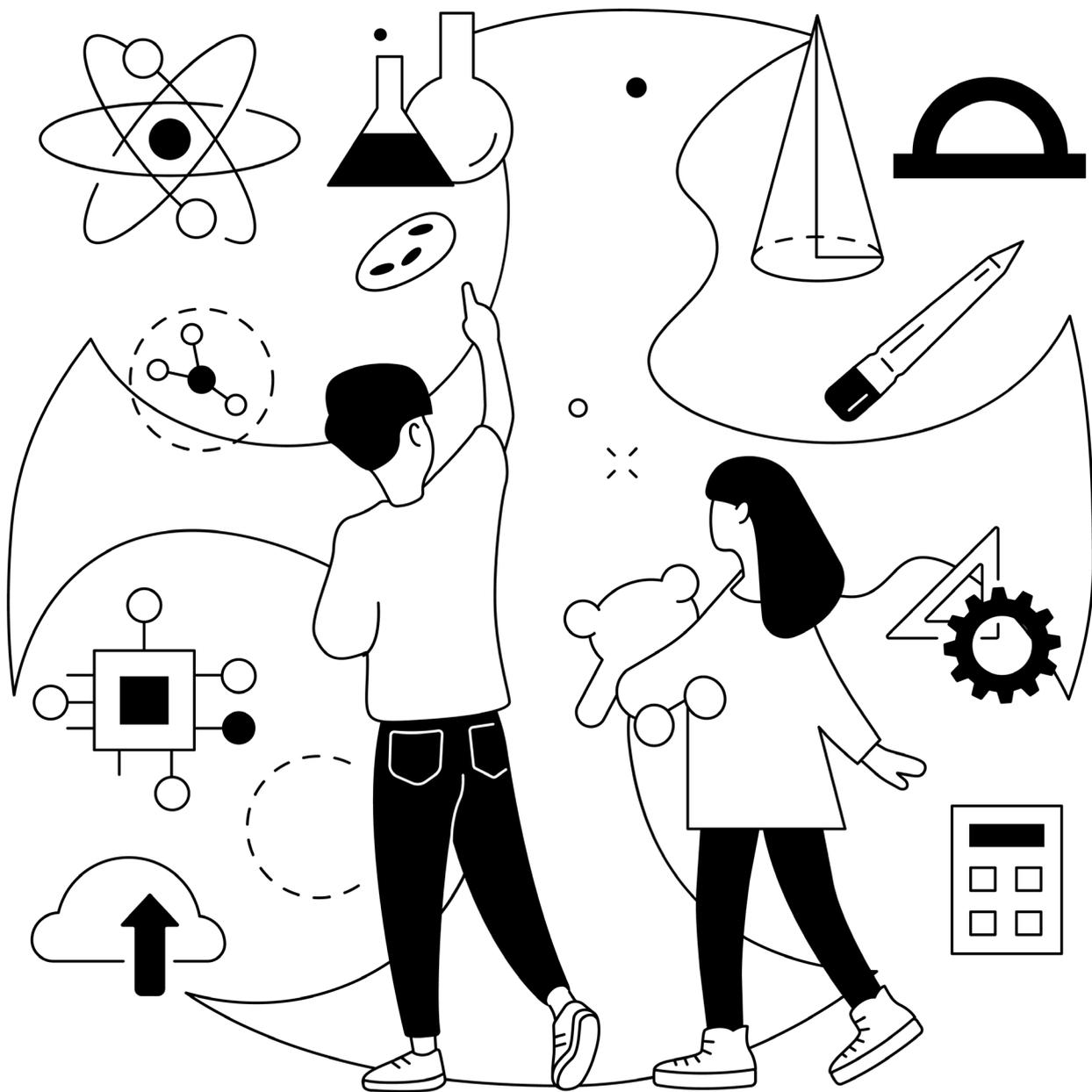
**Interacting with
information**



**Identity in the
group of belonging
(reaffirmation of
the prosumer "I")**



**Citizens critical of
their environment
in social networks**



Furthermore, on a daily basis, in the classroom, we can integrate a series of habits that have been shown to be useful in the scientific community to teach students to evaluate online content before sharing it or using it as reliable information:

- URL. Check the address of a website or user profile. Many media, companies or individuals are affected because one of the tactics of disinformation consists of pretending that the content is reliable or that it resembles a space of trust. On other occasions, similar addresses are created to disorient, to which only a small detail is altered that is not perceived and is enough to deceive;
- Owner. Ensure that the owner is connected to the content; content must be quarantined if it is excessively striking or alarming;
- Text. Read the content and look at the writing: How it is written? Does it have spelling mistakes or grammat-

ical errors? Consider the purpose of the information: Does it call us to action, try to convince us of something, or appeal to our feelings? Is it humorous or ironic content?;

- Authorship. The signature (name and surname) of the person who created the content is an endorsement. Therefore, that person is responsible for what is written or recorded. In the case of the media, their origin must be clearly identified;
- Actuality. Always consider whether information or content is strictly current. To do this, we can search the internet to see if it has been published by reference media; and
- Format. Analyze the everyday elements present in the editing, assembling and layout of the information. An example would be to study why the format of an Instagram photograph is more attractive than that of a blog post for young people.



3. Intervention agents and lines of action:

The role of teachers, families, the media and educational research

The family-school union is essential for the MIL model because students connect to the internet in these two settings daily. However, educational research provides guidelines and support to guide interventions by other agents. Likewise, the media can commit to creating a more truthful virtual world and facilitate MIL.

Importantly, the greater the family intervention, the greater is the perceived risk

by sons and daughters when surfing the internet, and this, in turn, generates less exposure to troublesome behaviors. For this reason, communication within families is useful and relevant. Additionally, the preparation of teachers from their initial training to their continuous training is necessary to strengthen and develop the literacy of young people. [The tool generated in SPOTTED](#) can be used in the classroom for

young people to evaluate their skills when exposed to disinformation, and we can help them strengthen their skills to cope with possible bullying behaviors on the internet.

In general, there are several proposals for action in educational centers that have been shown to be effective in the classroom:

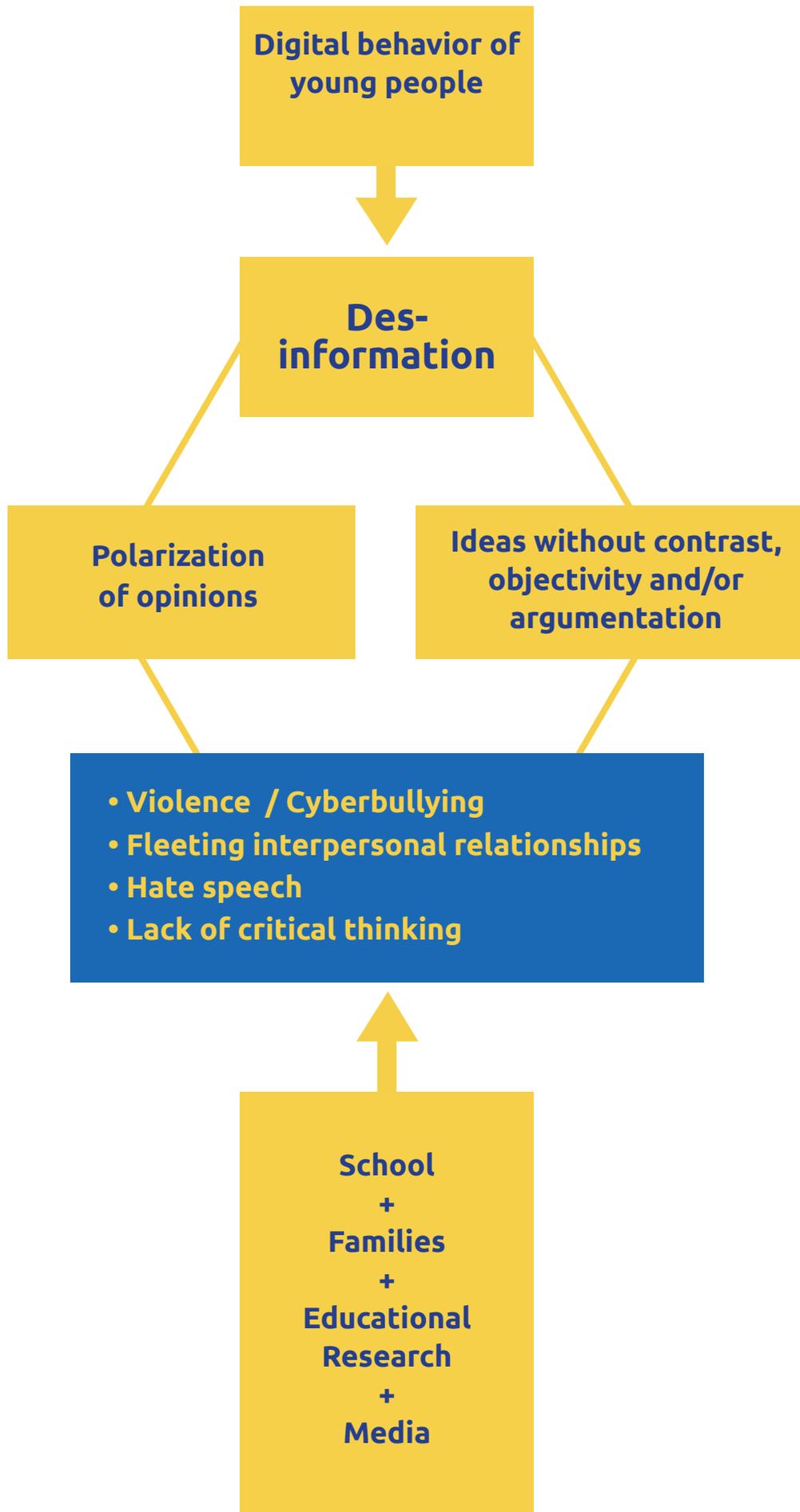
- Support from families in events such as cyberbullying or problems of digital identity theft;
- Coordination with a management team and/or psychological team and specialized training in disinformation (some of the questions in this chapter can help with this purpose);
- Support from other teachers when unable to address a specific cyberbullying problem;
- Leadership of students in the classroom who can intervene in the conflict and analyze the relationships established within the group-class, a specific subject, recess or breaks;
- Increase emotional intelligence with regard to digital platforms, concretized in the recognition of one's own needs and emotions as well as those of other people.

In addition, to make MIL more relatable to young people, we can use the languages and formats that they use to communicate [memes, videos, gifs] or utilize the narratives they consume in their leisure and entertainment spaces [series or streaming

content]. In this way, teachers can provide their students with the opportunity of directing the analysis of the information through an inquiry approach based on interests and questions. This last aspect is key because the objective against disinformation is that our young people reflect on different points of view and have certainty about what is true and what is not to make informed decisions, from using a source for their academic work to knowing how to apply for an online scholarship, sign up for training or buy a product.

In short, teachers can intervene in improving the relationship that young people establish with the virtual environments they visit. For this, it is necessary to dedicate more time in areas or subjects to support students in the evaluation of the online content consumed. Teachers are not alone; in this guide, there are various resources and tools to guide their work and support them through research and the media.

Finally, the following outline summarizes the aspects of a socioeducational proposal against disinformation and its consequences.



5

THE BATTLE OF DISINFORMATION in/from the classroom

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Introducción

The teacher is the first line of defense against disinformation, and the battlefield is the school or, more specifically, YOUR classroom.

Perhaps this phrase is too sensational and alarming. The war metaphor could also be criticized. However, we believe that it aptly reflects the current situation where teachers find themselves in a situation where they must face disinformation among students who have not been trained in the responsible consumption of media.

What are the most common “battles” that teachers can face in the classroom? Next,

we propose a series of situations that teachers who are reading these guidelines will find very familiar:

- A work argued with dubious references or sources of information from social networks or influencers;
- A student who questions a teacher in class regarding a fact/information because they had read/seen it from



a dubious source (a conspiratorial, a denier, an influencer without authority, etc.); and

-A student echoes a rumor and spreads it.

In these and other similar situations, teachers must face disinformation and, above all, must design teaching methodologies that allow students to reflect on how disinformation impacts their day-to-day lives and their educational processes. This chapter aims to delve into how disinformation impacts young people in schools during their formative period. To help with this, within the text, a series of cases and tools will be presented to explain to students the importance of disinformation at their respective ages. These cases, due to the relevance and topicality of the issue, will focus on the COVID-19 pandemic.

The examples will be used to illustrate how fake news finds its way through social networks aimed at a young audience. For this,

special attention will be given to hoaxes on social networks and to how media such as TikTok are transforming (and magnifying) the landscape of disinformation. In general, these networks amplify the message, adapt it with new narratives and faces (influencers) to the youngest audiences and spread them virally to those groups who, due to their age, are still enrolled in learning and training processes.

What is the role that we should adopt in the classroom as teachers in the front line of battle? We must be able to convey to students that the disinformation battle begins with their digital consumption. The subject is no longer positioned in the media or official news channels but in distribution through social networks, as we will see below. The purpose of these case studies is to learn how these practices of access to information, news consultation or digital social relationships affect young people and shape their perception of the truth.

1. Fake News Case Studies: When young people are the target

Worldwide, the pandemic has been the source of numerous hoaxes that threaten science and that have targeted the very origin of the virus or the vaccine.

Although the majority have been directed to the general population, it can be seen below how many of these fake news items have a subsequent echo on platforms and social networks aimed at a young audience.

These networks, as we said above, amplify the message, adapt it and expand it to those groups who, due to their age, are still enrolled in learning and training processes.



Jon Adams™
@citycyclops



1.1. Tech hoaxes

Perhaps the most viral international hoax with the greatest impact has been the one that linked the origin of the pandemic with 5G technology and telecommunications towers. The [United Nations' own website](#) refuted the hoax by repeating the statement by the WHO: "to date, and after much research performed, no adverse health effect has been causally linked with exposure to wireless technologies", and "provided that the overall exposure remains below international guidelines, no consequences for public health are anticipated". This hoax was based on different conspiracy theories with recurring clichés, for example:

- the surveillance of states;
- technocracy;
- the demonization of digital tools; and
- the hidden agendas of the great powers.

The following illustration made for The New Yorker by Jon Adams highlights the main problem of these cases: the urgency to find an easy and fast solution that no one has seen or found before. This same basic idea serves as a basis for followers of currents such as Flat-Earthers, who refute science with simple explanations without foundation.

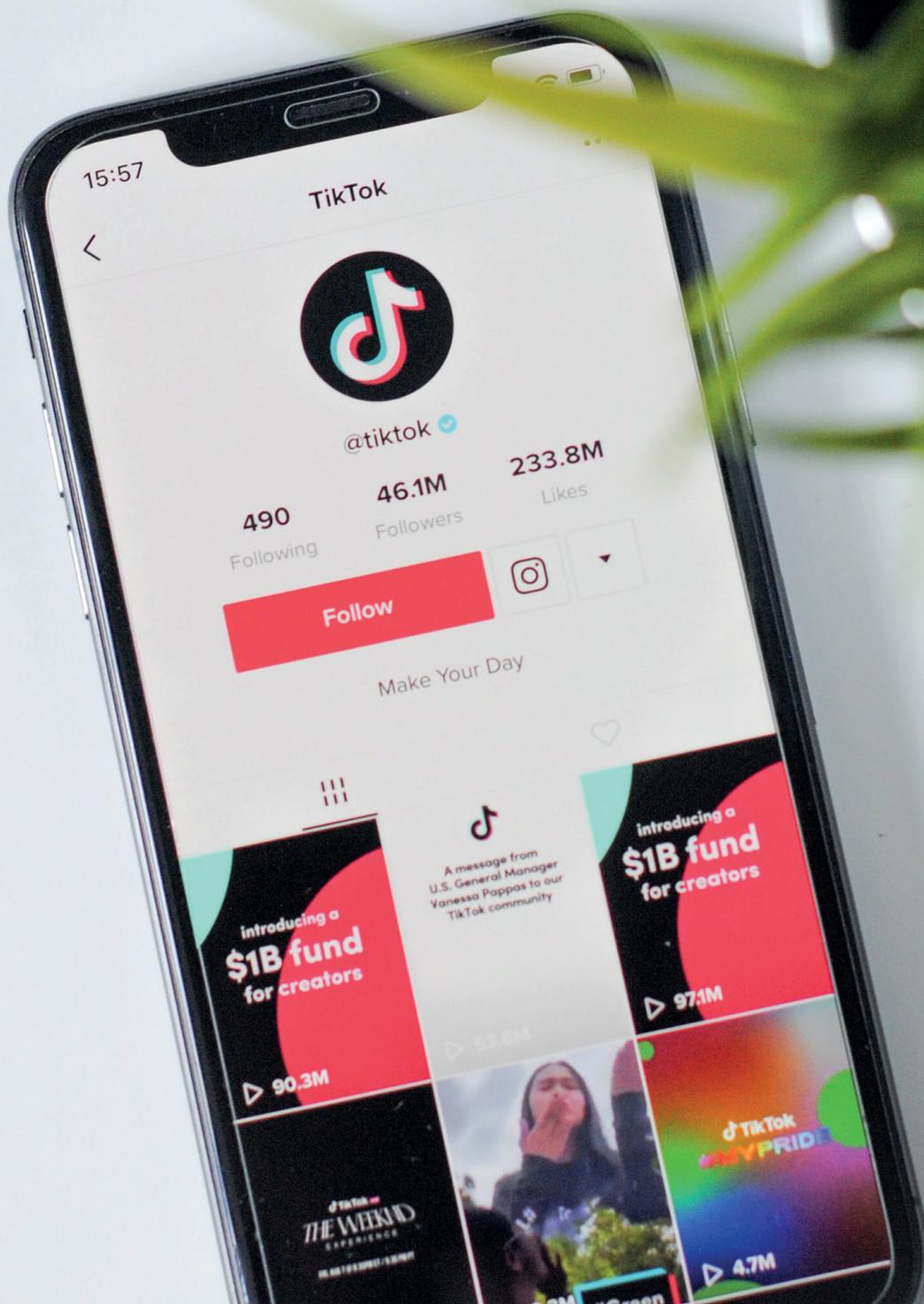
Facebook was the victim, during the pandemic, of different hoaxes that questioned it as a network that filtered its data to governments for citizen geolocation and that signaled precisely to what was discussed above. This case was especially relevant in Spain, where during the first months of the crisis in 2020, WhatsApp was the center of different fake news stories that linked the fears of citizens to be controlled in their movements and conversations by the Spanish government and the power of large tech companies. This hoax took advantage of the change in policy to fight Facebook disinformation, which limited the forwarding of viral messages on WhatsApp. However, as [the platform needed to clarify](#), the limitation was imposed to prevent the rapid spread of viralized messages on the messaging network, hindering mass delivery chains. There was, contrary to what was viralized in the different hoaxes, no technology used by government bodies that could read private messages or censor them. The alarm caused by this type of disinformation generates technological confusion in users who, in many cases, migrate from one platform to another (without truly knowing these new “social destinations”) before the threat of conspiracy. However, at the very root of this type of hoax lies a basic issue of media education and digital literacy: as users, we need to understand how the networks and platforms we use work.

1.2. TikTok and how “the pseudoscience of influencer” gains ground over science among young people

Following closely behind, another of the most viral hoaxes is the one linking vaccination with a magnetism effect (sometimes even justified [by the presence of graphene](#)). Accepted by pandemic and vaccine deniers, this type of hoax exploited social networks and, especially, TikTok to spread tests and challenges that confirmed the magnetic effect of the vaccine through a spoon that magnetized to the arm. The instantaneousness, proximity and spontaneity of social networks has allowed these hoaxes to grow very quickly. According to data from the European Digital Media Observatory (EDMO), a “TikTok report shows that the number of videos with a vaccine tag applied has increased on its channels in Europe, from 90156 in October to 148005 in November and 265759 in December, with the highest jump in Germany, and a three-fold increase in Italy and Spain” (<https://digital-strategy.ec.europa.eu/en/library/fighting-covid-19-disinformation-reports-november-and-december-actions>).

In most cases, hoaxes arise as explanations of scientific issues, simplifying the

"According to data from the European Digital Media Observatory (EDMO), a TikTok report shows that the number of videos with a vaccine tag applied has increased on its channels in Europe"



“TikTok is taking over social media. It drove the growth of social app use by 100% in 2019 and by 200% in 2020. On average, kids now spend 80 minutes a day on TikTok”

arguments and relying on the spectacular of the selfie culture and live shows. More hoaxes of this type have been that [sun exposure reduces vaccine efficacy](#), the doubtful [disappearance of the needle](#) from the syringe when vaccinated or the side effects that may be experienced after vaccination and that can range from [tremors](#) to larger breasts in those vaccinated. This [last hoax, which also went viral on the social network TikTok](#), was promoted by the profile of a young woman who explained how her breasts had increased after receiving the second dose of the vaccine. In most cases, these hoaxes quickly go viral and jump from platform to platform (YouTube, Telegram, Twitter, Instagram, etc.). This is what happened with the video that served as the basis for the hoax that surgical masks contained larvae. A home video showed that small black threads could be seen in these masks. [RTVE Verifica](#) dispelled the hoax,

which made the leap to youth influencers such as Marina Yers.

Although most of these hoaxes are quickly debunked, the “fuse” of disinformation runs fast, and all videos play with a double nature, halfway between pseudoscience and jokes or humor, exaggerating unchallenged exceptional cases.

The popular Chinese platform has also extended the use of challenges. Sometimes, disguised as a fun “try it yourself” action, these challenges resort to messages without any scientific support that, when viralized quickly, have an impact among the users who view them as scientific curiosities. An example of this was the challenge that invited users to check if they could distinguish flavors using their testicles. In his TikTok channel, [@Malditobulo](#) very aptly takes apart this challenge that emphasizes a sim-



plification of the scientific method (Google search and experimentation) accompanied by a fake TikTok performance.

TikTok has also viralized challenges that are dangerous to health, such as the frozen honey challenge (and the danger of consuming sugar in large quantities) or the Benadryl Challenge, which consists of ingesting an antihistamine used for treating allergies and caused the death of a 15-year-old adolescent in the United States. Users of the social network consumed a large amount of this drug to post the hallucinations they experienced. As in most challenges, the ur-

gency to show or prove collectively without allowing time for reflection or criticism prevails. Thus, disguised as tests or challenges, most of these challenges have a double danger in disinformation. On the one hand, they are aimed at users who want to experience and who interpret any content they see on their screens as real. On the other hand, it leaves aside time for reflection and fact-checking, trivializing and normalizing a series of practices that are harmful to health and that, at the same time, generate and spread confusion about science and the scientific method.

In addition, the rise of TikTok is especially alarming because as recent studies indicate, it is one of the social networks seeing the highest increase in all its metrics, especially among those under 40 years old for iabSpain. According to Qustodio (2020), in its report “Connected more than ever, Apps and digital natives: the new normal” in which children between 4 and 15 years old were surveyed, “TikTok is taking over social media. It drove the growth of social app use by 100% in 2019 and by 200% in 2020. On average, kids now spend 80 minutes a day on TikTok”.

1.3. Hate speech

Quarantines and confinements have also been a breeding ground for hoaxes, especially during the massive round of infections in the Balearic Islands during the summer of 2021. This massive lockdown, which was very mediatized, led to the explosion of fake news, comments and videos on social networks where the protagonists (and recipients) were mostly young people. Perhaps one of the most relevant cases was that of a young man on Twitter who denounced the confinement and injustice of

[what was happening](#). Later, the twitterer himself denied his statements and clarified that he was “trolling” as a parody about the trending fashion at that time, as explained in [this RTVE article](#).

Hate speeches are also one of the main problems of hoaxes on social networks. This type of discourse finds in disinformation and falsehood the ideal landscape to polarize people who do not stop to check information. An example of this was the video that stated that gypsy families had received a grant of three thousand euros and that they were spending it in Mercadona. [RTVE Verifica refuted](#) the hoax, explaining that the user made the claim has a channel dedicated to making jokes about gypsies. More recently and in the context of discourses of violence, another hoax has spread through social networks that invites the organization of a supposed challenge that celebrates a day of rape on April 24. This hoax was reported on the [Policía's](#) own TikTok account. Additionally, [Newtral](#) provides information regarding how network platforms are detecting and preventing the spread of this type of hoax.

"Hate speeches are also one of the main problems of hoaxes on social networks. This type of discourse finds in disinformation and falsehood the ideal landscape to polarize people who do not stop to check information."

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2. Examples of counterdisinformation literacy programs for young people

Next, a series of resources and utilities are proposed that can be explained and taught in the classroom with the aim of addressing disinformation.

2.1. Initiatives & media literacy resources to spot fake news

The professor, political scientist and journalist David Rothkopf, in an article published in *The Washington Post*, anticipated the potential virulence of the phenomenon of disinformation generated by digital information flows: “These Internet- or media-borne viruses create global panics, trig-

ger irrational behavior, blur our vision of important underlying problems, strain our infrastructure, buffet markets and undermine governments” (Rothkopf, 2003). This is why the social influence currently exercised by initiatives that have emerged from the same digital sphere to counteract the disinformation phenomenon of the internet is key. From Google through its tool “[Fact Check Explorer](#)”, initially developed for researchers and journalists but is now



more mainstream, including informative work carried out by influencers in Spain such as Sandra Ortonobes, creator of the channel “[La Hiperactina](#)” on scientific dissemination, which debunks false myths about medicine and health, it is evident that the role played by digital platforms is crucial in the battle against disinformation and the proliferation of hoaxes.

The informative function of these initiatives should be developed in conjunction with a proper family education in this regard, aligned with training in media literacy that is deployed through educational centers; these are the key pieces that should accompany minors in the appropriate development of their digital skills. Among other skills, one of the core competencies

that young people must develop is informational contrasting and media research, that is, knowing how to consult and contrast the different and numerous sources of information available on the internet. Within the field of media literacy, spotting fake news, as well as knowing its formal features, modes of dissemination and potential social consequences, are essential practical tools for learning today. Therefore, the benefits of our contribution as educators in this learning process are unquestionable; below, we will point out several educational projects that revolve around these premises and that illustrate the pedagogical efforts that are being developed in our country.

2.1.1 Project EduCAC: <https://www.educac.cat/>

The Education Department of the Catalan Government, in agreement with the Audiovisual Council of Catalonia, developed the EduCAC project, an educational plan that aims to promote media literacy among the youngest individuals. The ultimate goal of the project is to provide teachers with didactic content that allows them to include media literacy in the classroom. The objectives are to promote specific knowledge of audiovisual language and to promote critical analyses so that students are able to internalize habits of ethical and responsible consumption of both the media and the information they disseminate.

The ideological slogan of the project itself is a declaration of intentions (Casamitjana, 2021): “the media have a framework for reality; let’s deconstruct it and create our own” (Educac.cat). From the EduCAC platform, materials have been developed for educational centers, and educational content has been designed for the families of students, related to the consumption of audiovisuals on the internet, so that parents can incorporate such information into the domestic education of their children in the family environment.

The educational material provided by EduCAC are designed so that through formal education, media literacy can be addressed and the importance of spotting and checking fake news can be examined in detail,

ultimately fostering the responsible and critical consumption of the messages disseminated by digital and conventional means.

2.1.2 Project FAD “(In)Fórmate”: <https://informate.campusfad.org/>

“(In)Fórmate” is presented as an educational proposal focused on training students for the consumption of information in traditional and digital media. It aims to promote media literacy while generating a certain critical view among Spanish adolescents who are in the final years of ESO, specifically students between 14 and 16 years of age.

The national project “(In)Fórmate” is an initiative developed by the technology multinational Google, together with the Government of Spain and the organization FAD. “(In)Fórmate” integrates various resources, content and educational tools with the objective of specifically training high school students to spot and combat fake news.

The project is built upon two core proposals: training, gamified with the product “Eraser”, and the “Info_Influencers” contest, a challenge for adolescents based on the development of informative content. “Eraser” is an educational game or adventure designed both to train in the detection of disinformation flows as well as in the management of information in digital contexts. “Eraser” allows playing out the train-



“From the EduCAC platform, materials have been developed for educational centers, and educational content has been designed for the families of students, related to the consumption of audiovisuals on the internet”

ing dynamics in several teams of students simultaneously, after creating a virtual classroom with access supervised by their own teachers.

The “Info_Influencers” contest is based on the style and form of the “challenges” found on social networks. It proposes to adolescent students between 13 and 18 years of age to develop informative content from a real fact that is truthful and rigorous, an exercise for young people to learn to communicate without misinformation (campusfad.org). The “Info_Influencers” contest is intended to promote the ability of students to consult and fact-check their own sources of information in a truthful and legitimate way, without spreading half-truths, causing confusion or misinformation among their peers.

2.1.3 The master key of communication

Since 2014, the Jerez Press Association has been carrying out educational actions in schools in Andalusia with the objective of offering young secondary school students tools and resources that allow them to “understand, critically analyze and responsibly assess the information they receive daily

through the media” (www.lallavedelacomunicacion.com).

The origin of the project is focused not only on students and teachers but also includes among its objectives the training of the family core. The primary intention is to influence the key settings surrounding these young people to achieve a certain internalization of the correct habits of media consumption.

One of the core values of the project, which makes it especially relevant, is its involvement in promoting media literacy among people at risk of social exclusion. In its latest edition of the Master Key project, associations and support organizations have joined with the intention of expanding and bringing this training to audiences in rural areas of the region. Through this series of trainings, the Jerez Press Board aims to promote a sense of urgency toward information that is massively consumed. Specifically, The Master Key project focuses on two settings as the two main areas of work, i.e., immigrants and women, trying to fight against manipulation or disinformation in media related to both groups.



2.2 Digital educational resources and tools to combat disinformation

The digital revolution, in which we are immersed, has greatly favored linking the playful with the pedagogical; therefore, it is increasingly common to speak of what Prensky (2001) calls “Digital Game-Based Learning” (DGBL). In this approach, the world of fake news spotting and checking

has not lagged behind. Today’s students appreciate that DGBL provides them with the educational tools and resources necessary to analyze the fake news and images that are constantly circulating on social networks. Specifically, the genre of video games called Newsgames, a branch of “serious games” designed around interactive journalistic training, are a clear example of this DGBL trend.



Another interesting gamified pedagogical proposal is “Eraser” by [\(In\)fórmate-FAD](#), designed to train young people to spot fake news in digital contexts. In “Eraser”, many students can participate simultaneously as teams. After creating a virtual classroom, students can register at eraser.campusfad.org to enter, play and learn from any device.

Another initiative of FAD in consortium with Google.com has a similar digital initiative with the same common objective. The program aims to help 27,000 young people navigate the internet safely and combat misinformation that is disseminated on their social networks. In a similar way to these pedagogical proposals, we list below multiple tools available online that, although they do not involve educational platforms per se, allow students to access them to identify the origin and place of dissemination of certain fake news stories as well as of images that were manipulated and published online fraudulently.

1) <http://fotoforensics.com/>

This tool was designed for the rapid analysis of images. With little experience or training, anyone can evaluate an image in a matter of minutes. FotoForensics aims to simplify the process of evaluating images and photographs. It works as a sort of microscope to which the pixels of the image are subjected, where certain details are highlighted that the human eye is not able to identify. FotoForensics also provides a series of online tutorials for personalized learning at the pace of each user, challenges that test user knowledge and another series of didactic resources for starting the tool.



“The digital revolution, in which we are immersed, has greatly favored linking the playful with the pedagogical; therefore, it is increasingly common to speak of what Prensky (2001) calls “Digital Game-Based Learning” (DGBL).”

2) <https://tineye.com/>

TinEye Reverse Image Search is an extension of Mozilla Firefox that can identify exactly where a specific image published on networks comes from.

The extension can be integrated into the browser, and the search does not take more than a few seconds. Thousands of millions of images are filtered consecutively, ultimately providing results and the exact address where to find them. This tool is especially useful for identifying the original publication of a specific photo.

3) <https://jpegsnoop.softonic.com/>

JPEGSnoop is an online analyzer capable of detecting any modification made to a JPG image, also allowing the analysis of video frames. JPEGSnoop analyzes whether an image has been retouched, examining the EXIF metadata, that is, the compression

traces, color histogram and other internal parameters (softonic.com).

After an analysis, JPEGSnoop generates a report showing the specific data that it has identified during the analysis process. The most relevant aspects of the analyzer are condensed in a final report, from which specific information can be obtained that determines whether the file has been modified by a visual editing program.

In addition to this series of technical tools available, there are numerous platforms and specialized pages where users can check the veracity of a particular news item, among the most prominent being security notifications from OSI, Madlita.es, EFE verifica or Newtral.

With these last references and those previously developed, we have tried to provide some of the best technical tools available within the national scope for verifying false content.

6

PROJECT SPOTTED: A new tool for literacy against disinformation

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Introduction

Young people have not created the phenomenon of disinformation; however, they have been held responsible for its effects by being overly trusting or unconcerned with the sources they consult and the media they consume,

due to their lack of competence in discerning quality information, for sharing harmful content without fully knowing the consequences, and for lacking critical thinking. However, we must recognize that in an informative context of hybridized genres and formats, where humor, sensationalism, image retouching and other questionable practices seeking to confuse public opinion about the veracity of the facts, even the most skilled content checkers are dealing with a truly complex consumption of information.

For this reason, in recent times, the efforts of countries, their journalists and education professionals have recruited for training as a shield against the vulnerability of young people as creators and intensive consumers of internet content, through the development of strategies related to media literacy or news literacy.

[Spottedproject.org](https://spottedproject.org) is the product of one of these initiatives in the spirit of helping young people evaluate and rate the credibility of information, with the aim of



overcoming being merely exposed to the misinformation phenomenon and instead actively seeking information with critical precision and understanding, knowing how to use checking tools. The objective of this project is to offer a space (the web) in which young Europeans can learn about their weaknesses against disinformation, based on their consumption habits, behaviors and attitudes, so that, based on this diagnosis and an ad hoc training itinerary, depending

on what they need to improve, they can improve their abilities and critical positioning against the messages to which they are exposed daily.

Finally, the SPOTTED Project also aims to be a useful tool for European teachers, letting them to work alongside their students in this learning process to face the challenge of disinformation.

1. Spottedproject.Org: a checking tool

SPOTTED is a psychometrically validated scale, that is, scientifically validated scale, that measures certain information consumption habits that are key to fighting disinformation.

The scale was created based on preexisting work models, such as the C.A.R.S. test by Harris (1997), which considers the variables that should be asked about a source for it be reliable, for example, credibility, accuracy, reasonableness and support (proof); the C.R.A.A.P test by Blakeslee (2004), which measures variables related to currency, relevance, authority, accuracy or purpose; the R.A.D.A.R test by Mandalios (2013), which includes rational, authority, date, accuracy and relevance; the P.R.O.V.E.N test by

Caulfield (2017), which assess students as checkers and also includes purpose, relevance, objectivity, verifiability, expertise of the source and newness; and the E.S.C.A.P.E Junk News test by Newseum (n.d.), which proposes six ways to evaluate information: look for verifiable evidence, the sources, analyze the context, the audience to which it is directed, the purpose and how it is executed. All of them are definitive lists of habits or recommended tasks when establishing credibility for content or apparent



news. Based on all this, the construction of a validated measure is proposed to observe certain behaviors that protect against disinformation.

HOW IT WORKS

The SPOTTED test has been devised under the presumption that students are examined in some way, that is, that they become aware of the barriers they pose or how vulnerable excessive self-confidence or self-perceived competence makes them, asking different questions about their habits in relation to the consumption of information.

First, when accessing the web, in a drop-down menu located in the upper right corner (the icon with the horizontal bars), the

third item is the SPOTTED test in the official languages of the consortium that developed this project (English, Italian, Polish, Greek, Lithuanian and Spanish). Then, once that option is selected, the questionnaire begins. This questionnaire is divided into three phases. Once completed, respondents obtain a certain score (diagnosis) based on their answers and will be offered a training schedule to improve what they are less competent in or to reinforce their skills.

To ensure the usefulness of the tool and that students benefit from personalized training, it is essential to remind them of the importance of being honest in their statements.

1.1. First phase of the test: Evaluate the credibility of the information

The scientific community agrees that it is much more effective to teach young people to score the trustworthiness of information than to use technology or tools for verifying content and sources. Therefore, in the first phase of the questionnaire, students see 19 questions (scored on a 5-point Likert scale, with response options ranging from 1-never to 5 -always), aimed at determining if young people follow certain basic checking routines when looking at information or if they consider, for example, its purposes, from convincing them of something to moving them to action.



Table 1. Checklist of the Vulnerability to Misinformation Scale (VMS)

Items for the evaluation of information
I check if the author of the content or news is there.
I look to see if the website or the medium is known.
I verify that the web address is credible.
When it's a video, I check to see who made it.
I look to see if the information is recent.
I check if the photo corresponds to the rest of the content.
I look to see if I can contact the author or find more information about him or her.
I compare the information with other sources.
I'm good with reading only the headline.
I need to read the entire news or content.
I note whether the information contains data or figures from reliable sources.
I check whether the information is well presented (without spelling errors, grammatical errors, etc.).
I will doubt a story if the headline is too attention-grabbing.
I think about whether the content I'm receiving is related to the present.
I clearly differentiate if the news or content is humorous or a joke.
I think about whether the information is trying to influence my emotions (make me laugh, angry, outraged...).
I analyze whether the content, in addition to informing, has another purpose (political, ideological, economic...).
I think about whether the information is intended to harm someone or something.
I clearly distinguish between what is information and what is opinion.



1.2 Evaluate before sharing

The experts also agree that an effective way to curb the phenomenon of disinformation is to stop the distribution of any type of misleading content, rumors, unverified facts, etc., and avoid them going viral. For this, it is essential for individuals who receive such content to pause for a few seconds before making, almost without thinking, impulsively, a gesture as simple as sharing the content with their contacts or with followers on social networks. Within these questions of the questionnaire, six in total, the students address their habits, motivations when disseminating content and their responsibility.



Table 2. Checklist of the Vulnerability to Misinformation Scale (VMS). Before sharing...

Items on information dissemination
When information or content amuses me, I share it immediately, without fact-checking it.
If a news item makes me outraged or angry, I share it immediately, without cross-checking it.
When I get a piece of news that makes me happy, I share it quickly, without having to cross-check it.
When sharing content, I simply seek to entertain myself and my friends.
I share news or content with the main intention of influencing the opinion of others.
If I know it's false, I share it to warn my contacts.

1.3 Critical thinking and moral behavior

One more step in basic checking habits is reasoning, observation or reflection on the information, i.e., critical thinking. To determine whether greater critical thinking is positively related to more responsible consumption when establishing credibility in content or news, critical thinking is also included as a subscale of the questionnaire, also included in the VIA-Y questionnaire (Values in Action for Youth) by Park and Peterson (2006), which measures human strengths in adolescents. It consists of eight items scored on a Likert-type scale (from 1 = Totally disagree to 5 = Totally agree) and evaluates the perception that the respondent has about information used when making decisions and the degree to which they reflect on that information when deciding (e.g., when I make a decision, I consider the good and the bad of each option).

Related to the above, because the immoral or unethical behavior of people can aggravate the effects of disinformation, for example, when unverified information is shared or images are created with the intention of harming someone or something, 12 questions of the Moral Disengagement scale by Bandura et al. (1996) were included. Items (scored on a Likert-type scale, ranging from 1 - totally disagree to 5 - totally agree) corresponding to the following mechanisms of moral disengagement were included: advantageous comparisons that individuals make of their own harmful behaviors (e.g., damaging property is not a big deal if one considers that others do worse things), the displacement of responsibility (e.g., if people live in poor conditions, they cannot be blamed for assault) and the diffusion of responsibility (e.g., a boy who belongs to a gang cannot be blamed for the problems caused by the gang).



"One more step in basic checking habits is reasoning, observation or reflection on the information, i.e., critical thinking"

2. Personalized media literacy

The training tool created by project SPOTTED provides a training space that facilitates personalized and autonomous learning for detecting fake news and disinformation.

The platform personalizes learning through a questionnaire that, through the analysis of the results, offers a training path adapted to the needs of the user based on the three categories that compose the questionnaire and training.

These categories are the basic checking and reading of information, the detection of intentionality and, finally, sharing the

content. Each of these categories has two levels, i.e., basic and advanced. The different combinations of categories and levels yield eight training paths that are adapted to the needs of each user. Next, we provide a brief summary of the work in each of the categories, in their two educational or training levels, together with their expected learning outcomes.



A.1 Basic checking and reading - basic level

The ability to distinguish between news and opinions helps to develop critical and analytical skills both when reading and listening. News and opinions are often mixed on social networks and websites. Therefore, it is necessary to work on differentiating what is verifiable and what is mere belief to successfully navigate the deluge of information sources that we encounter daily.

Whether in the news, in advertising or in a history book, distinguishing between what is a fact and what is an opinion is crucial to

becoming an autonomous person with the critical capacity necessary to avoid being easily manipulated.

A news item generally refers to something reported as a fact that can be verified as such. An opinion refers to a personal belief. It refers to how someone feels about something. Others may agree or disagree with an opinion but cannot prove or disprove it.

Throughout this unit, a series of clear textual features are highlighted in order to become familiar with the characteristics to consider when differentiating a story from an opinion.

A few brief exercises will help to become familiar with these significant properties that will allow us to correctly interpret the meaning and purpose of a text.

Learning outcomes

- Verify informative articles taking into account the verifiability of their sentences.
- Recognize the textual features of an opinion.
- Acquire critical thinking skills for questioning a text.

A.2 Basic checking and reading - advanced level

When we read a magazine or a newspaper in the “real world”, we do it vertically, moving from the first line of the article to the end of the page. Of course, before reading it, we already know something about the source and the author of the content we are dealing with, that is, we already know if the source or the author are reliable or not.

When we read content online, the source or author is often unknown. If we read vertically, we can evaluate only what the creators of the content want us to see. However, if the website is not trustworthy, it is most likely that what the site says about itself is not trustworthy either. How can we evaluate a source or online content? Read it side to side.

Lateral reading is the act of verifying a source or online content as we read it. In-

stead of evaluating a source while remaining in it, reading laterally means moving away from the original site and evaluating the trustworthiness of that site from other sources of information on the web.

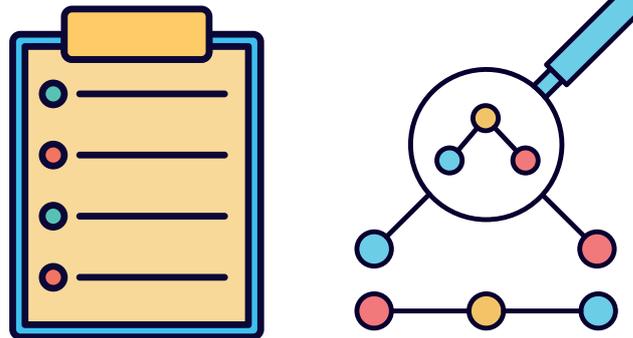
The exercises in this unit provide some useful strategies and techniques to exploit a wide range of verification sources offered by the internet.

Learning outcomes

- Raise awareness about digital strategies to track the source of information.
- Acquire strategies to apply lateral reading and question the information.
- Evaluate multiple sources of information to consider a final evaluation about a text/publication.

B.1 Detection of intentionality - basic level

We live in an era of information disorder. Our information ecosystem is dangerously contaminated by impostor websites and various forms of manipulation. The disinformation ecosystem today encompasses a wide spectrum of online content. In this unit, there are different forms of manipulation of relatively “low risk”, such as accidental errors committed by reporters, headlines that get clicks, satirical content or original content, but published with misleading or biased contextual information.



"How can we evaluate a source or online content? Read it side to side."

It is possible to detect four different types of relatively “low-risk” manipulations based on the intention of the perpetrator to deceive and the possible consequences for individuals and society. We can frame this content into four categories:

- Satire or parody;
- False connection;
- Misleading content; and
- False context.

The exercises provide an overview of the main low forms of manipulation, highlighting the strategies behind these types of

manipulation and the possible ways to spot them.

Learning outcomes

- Become a competent consumer of online content by recognizing the different types of disinformation.
- Understand the main features that characterize low-risk forms of disinformation.
- Critically analyze the different forms of information disorder that users can find online.

B.2 Detection of intentionality - advanced level

The information ecosystem is also contaminated by forms of high-risk manipulation that could even undermine our societies and democracies.

These types of manipulation are mostly designed to mislead—in some cases to harm—users and readers. Intentionally unreliable information, designed with high standards of manipulation, can affect our interpretation of the news, our point of view about other sources of information, our opinions about the facts and, ultimately, our social and political behavior.

This unit offers an overview of the most dangerous forms of manipulation. These types of “high-risk” manipulation are created to mislead and harm online users. We can divide this content into three categories:

- Impostor content;
- Manipulated content; and
- Fabricated content.

In this unit, examples of complex forms of manipulation and useful techniques and strategies to spot them can be found.

Learning outcomes

- Critically analyze online content.
- Understand the “high-risk” manipulation techniques hidden in misleading content.
- Raise awareness about the impact

of “information disorder” on society and democracy.

C.1 Sharing content - basic level

Due to the spread of cell phone cameras and the expansion of the possibilities offered by the internet, photos and videos are increasingly used to complement the arguments published on the internet. Photos and other images circulate rapidly, and it is often difficult to know whether these images accurately represent what their publishers claim.

Images can have a powerful impact, and we tend to believe that what we see (or think we see) is true. This unit challenges the sharing of visual content published by virtual friends who interpret and comment on photos in different situations.

Sharing is a great responsibility in a world in which everyone can act as a source of information; increasing or stopping the spread of fake news is up to you.

Learning outcomes

- Develop critical thinking skills, which are required to question the relationship between visual content and verbal content to determine its correct interpretation.
- Raise awareness about the social consequences of the practices of sharing content online and on social networks.



"(...) the challenge of recognizing hidden online advertising and how clickbait can contribute to the spread of fake news and disinformation will be addressed."

- Acquire critical thinking skills to reflect on the trustworthiness of information by evaluating the language and images used.

C.2 Sharing content - advanced level

Have you ever accidentally clicked on an ad while scrolling on social networks because you had not realized it was an advertisement?

Through the use of funny memes or inspirational content, this type of advertising disguises its commercial nature. This is what advertisers call "content marketing". The combination of content marketing and social media is a very persuasive tool. When the product being sold is addictive or potentially dangerous, the impact on the most vulnerable audiences is alarming.

Throughout the unit, the challenge of recognizing hidden online advertising and how clickbait can contribute to the spread of

fake news and disinformation will be addressed.

Learning outcomes

- Acquire digital skills to evaluate the set of information contained in a social media post to verify its commercial nature.
- Acquire critical thinking skills to question the authenticity of online content.
- Develop awareness about the strategies of digital scams and how to avoid deception.

Both in the measurement or self-diagnosis of the level of disinformation vulnerability and the set of literacy exercises and media training, the feedback assessments have been tremendously favorable. These assessments have also been very enriching because specific points, details or issues that have served to improve the performance of the platform in its final version were pointed out.

3. Initial experiences with spotted: very positive initial feedback from educators

The first testimonies of teachers who have already used the tools offered by SPOTTED have been very positive.

The first thing that stood out as a result of the first experiences with SPOTTED is that simply seeing the platform and its tools is already useful for increasing awareness about the problem of disinformation and fake news that surrounds us. Regarding the self-diagnosis scale, the mere fact of reading the questions or items that appear cause the reader to reflect, regardless of the subsequent response provided to each question. Somehow, the simple presentation of the measurement tool and the re-

flections that it induces achieve important milestones in terms of awareness of the problem. Perhaps the most interesting feature that emerged as a result of the initial feedback was that SPOTTED was not only useful for adolescent students but also for teachers, providing an opportunity to reflect on their own experiences as adults likely to consume and share fake news, artifacts or disinformation messages of all kinds.



Regarding the modules for learning and improving journalistic literacy through exercises, the proposed activities and tasks were considered, on the whole, very relevant and interesting, facilitating its implementation in schools for improving the digital skills of students.

The level of the exercises was considered sufficiently adequate for the intended learning outcomes and for the age group to which the project is mainly directed, that is,

adolescents. However, certain suggestions for improvement were also received regarding task flow, the dynamics and interactivity of certain exercises, the response operations, and in general clearer and easier organization of the content in the exercises to work on and study, both outside and inside the classroom, all in the different languages in which the platform is offered.

A series of strengths of the tools offered by the project were also highlighted, especial-

ly in the improvement exercises, in order to apply them in new contexts within the classroom. These strengths can be summarized as follows:

- The proposed set of e-learning exercises is very useful to update and improve the understanding of the dynamics of disinformation and to understand the consequences of sharing digital content on social networks, especially when unchallenged.
- The platform highlights the importance of reflecting on the possible intentions of the different types of online manipulation found on the web.
- It helps students in a very engaging way to understand the difference between news and opinion as well as how to detect misinformation and malinformation.
- It leads to the development of individual dynamics in its implementation and use but also in groups, both large and small, which makes it very versatile.
- Likewise, the fact that it can be used both inside and outside the class-

room, during a face-to-face session or remotely, makes it equally multi-purpose.

- The platform can be used in classes of different subjects within regulated education in different countries, i.e., not only in subjects directly related to new technologies or computer science but also in English classes, for example, or understanding the social environment, such as reading comprehension exercises, or to raise debates or other group dynamics.

In short, the project was rated not only as highly interesting, relevant and necessary but also as inspiring and considered a model for future projects. Because of the subject matter and because of the dynamics and layout, the project remains fresh, allowing teachers to expand the work with their students on this problem beyond what strictly appears on the platform. For example, information skills can be measured periodically with the scale after certain exercises they complete in class throughout the course.



**After seeing and experiencing
the SPOTTED tools,
the verdict was unanimous:
“Good job!”**

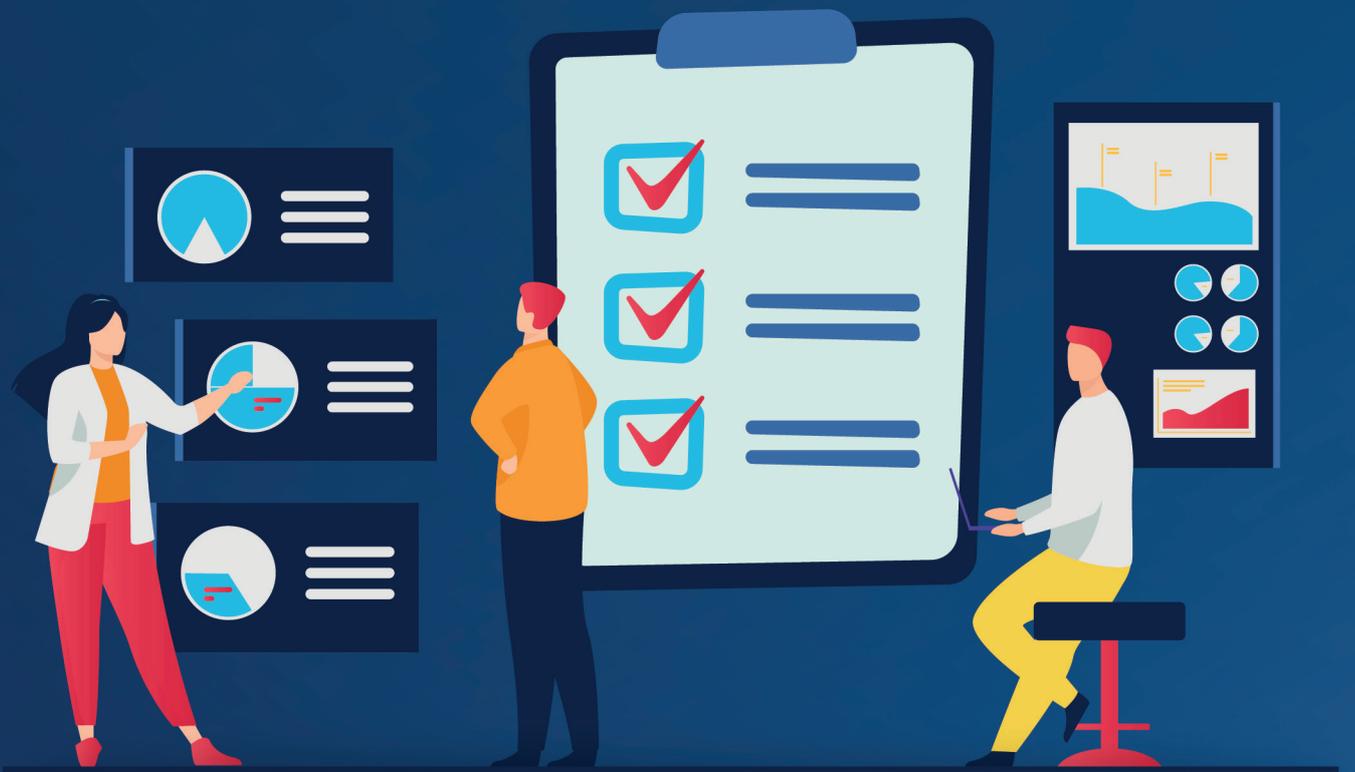


7

ANNOTATED LIST OF INTERESTING initiatives and resources

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Universidad Loyola Andalucía



Introduction

As we have seen throughout this guide, media literacy is one of the most effective tools against disinformation. Aware of this, governments, the media and educational institutions have recently opted for the development of projects that have favored interventions with groups of young people and improvements in their skills as consumers and creators of information and other contents.

Most of these initiatives are inspired by tools and resources that the media specialized in fact-checking and debunking use and originate from the first experiments launched by educational institutions such as universities, for example, [FactCheck.org](https://www.factcheck.org/) of the Annenberg School for Communication at the University of Pennsylvania and

[PolitiFact.com](https://www.politifact.com/) of the Poynter Institute.

Additionally, there are international non-profit initiatives, such as [First Draft News](https://www.firstdraftnews.com/), that offer multiple resources on their website, from reports, tools, online training, guides, and advice to scientific research. Along these lines, but aimed at adolescents,



there are associations such as internetmatters.org (in partnership with Google) that offer a wide variety of support resources to address fake news.

Finally, among the actions to address disinformation in the youngest public are those undertaken by vital institutions as provid-

ers of information: libraries, among which we find materials of interest. A good example of this is the [School Library Journal](#), the premiere publication for librarians and information specialists who work with children and teens.

7.1. European initiatives to combat disinformation

The selection criteria followed for this annotated list are the accessibility to the projects and tools, the possibility of acquiring skills related to the evaluation of the information, and the longevity over time of the materials and resources.

1. The [SALTO Youth Resources Centre](#) (Erasmus+)

The network of seven European centers specialized in training young people of-

ferred the MOOC [How to Spot FakeNews](#) in 2020. The objective of the course was to teach young people to evaluate information, identify false content and detect disinformation campaigns on social networks and in the online environment. The students learned strategies to identify and verify the accuracy of news and some methods to avoid sharing fake news.

Additionally, it has a tool to spot fakes, where any user can test their skills to evaluate the trustworthiness of information.

How to Spot Fake News ⚙️

Home
My courses
Skills - Mast have
How to Spot Fake News

Your progress ?

DID YOU KNOW?

The topic of fake news is as old as the news industry itself—misinformation, hoaxes, propaganda, and satire have long been in existence.



“Don’t believe everything you read on the Internet just because there’s a picture with a quote next to it.”

—Abraham Lincoln

The scope of this online course is to help you distinguish and evaluate news for its reliability and truth.

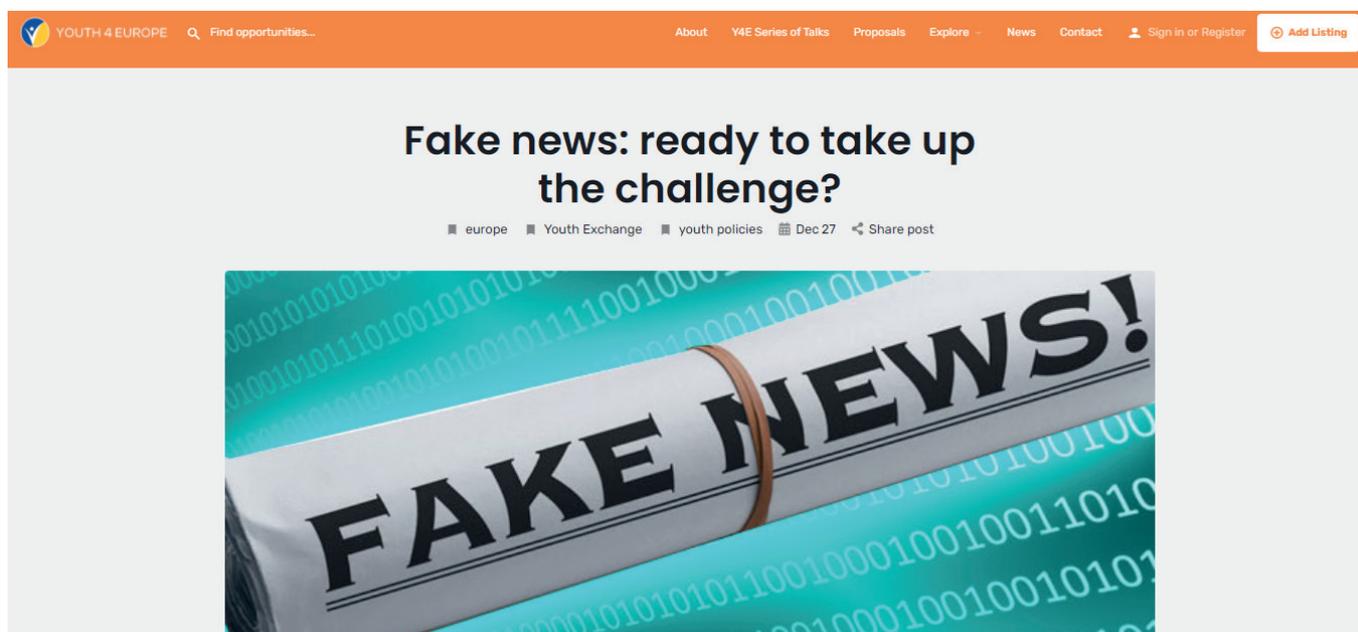


2. [Project Youth4Europe](#) (Erasmus+)

Youth4Europe is an Erasmus+ KA3 project in which young people discuss and develop proposals on European policies that affect them. Their initiatives are transferred to the commission.

One of its objectives is “to ensure that young people have better access to reliable information, to support their ability to crit-

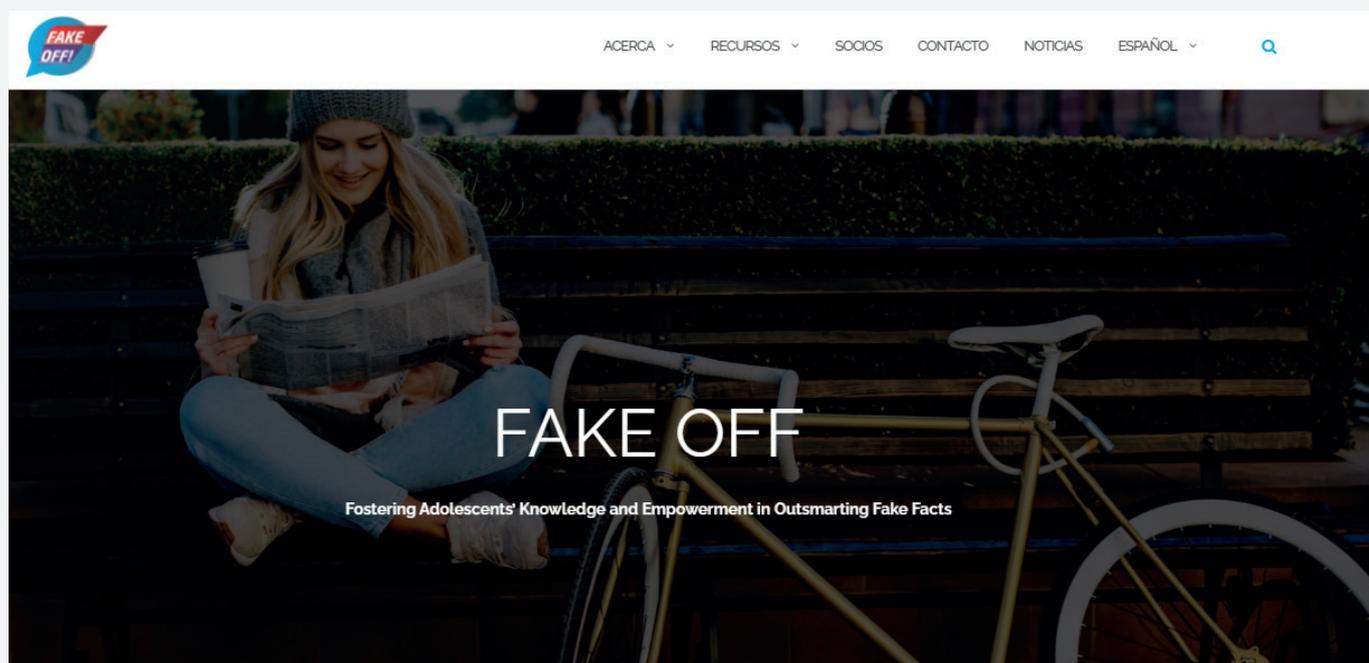
ically evaluate information and to engage in a participatory and constructive dialog”. Thus, the project moves along two different lines: one more focused on misleading news itself and the other more focused on hate speech and violence both online and offline. The project aims to provide young people with critical tools to approach information, focusing on the effects of information on certain behaviors.



3. [Project Fake Off](#) (Erasmus+)

This project is designed to promote the knowledge and empowerment of adolescents to discern what is true from what is false. More specifically, the proposed objectives are “1) to increase the participation of young people in the critical debate of news and internet content; 2) develop young people’s capacity to evaluate published information and act accordingly; and 3) allow a systematic approach to digital literacy for young people and professionals working with them”.

The results include the development of didactic material to promote the digital literacy of young people, a digital training pack, available in five languages (English, German, Portuguese, Spanish and Italian), an app (available in IOS and Android) that contains specialized gamified activities and, finally, a communication platform for detecting fake news. In addition, it has a website with resources for youth workers and training material on fake news and digital literacy for young people, trainers and/or teachers.





4. [Project Youth Skills – ySkills \(Erasmus H2020\)](#)

Under the title “The age of fake news”, this project aims to stimulate the information literacy of adolescents through strengthening those skills geared toward learning to evaluate information to establish its credibility.

The results have given rise to various publications, among which we find advice and recommendations aimed at reinforcing and evaluating the digital skills of young people.



[ABOUT](#) [PUBLICATIONS](#) [WORK PACKAGES](#) [CONSORTIUM](#) [NEWS](#) [BLOG](#) [CONTACT](#)

The age of “fake news”:
Stimulating
adolescents’ news
literacy through news
credibility evaluation
skills

5. [Project SOMA “Social Observatory For Disinformation And Social Media Analysis” \(Erasmus H2020\)](#)

This project is the result of an alliance of training entities, media and European public institutions for the monitoring of disinformation. It offers an open access tool, Truly Media, for the verification of information. In addition, it hosts tools to monitor

the spread of disinformation on social media.

Part of the work of this consortium consists of the preparation of reports on the state of the issue. In this way, the public can see results related to disinformation during the COVID-19 pandemic and related to other current issues that affect the democracies of the European continent.





6. [Project PROVENANCE -Providing Verification Assistance for New Content-](#) (Erasmus H2020)

To ensure safe social network participation, this initiative has fostered the development of digital tools for autonomously evaluat-

ing multimedia content with the objective of creating a network of committed users, based on information verification.

Among its content, research, reports and training resources are offered.

Five key objectives
The PROVENANCE project has five key objectives.
[Learn more »](#)

Seven partners
Provenance draws together expertise from seven partners across Europe.
[Learn more »](#)

One overarching goal
Provenance aims to provide the basis of a new social network grounded in verification.
[Learn more »](#)

7. [Project SocialTruth - Open Distributed Digital Content Verification for Hyper-connected Sociality](#) - (Erasmus H2020)

The objective of SocialTruth is to analyze news by classifying its trustworthiness to avoid the spread of fake news. Through the application of artificial intelligence and

blockchain technology, this project integrates different tools for the “meta-verification” of content. Its main recipients are conventional users, journalists, writers and the media.

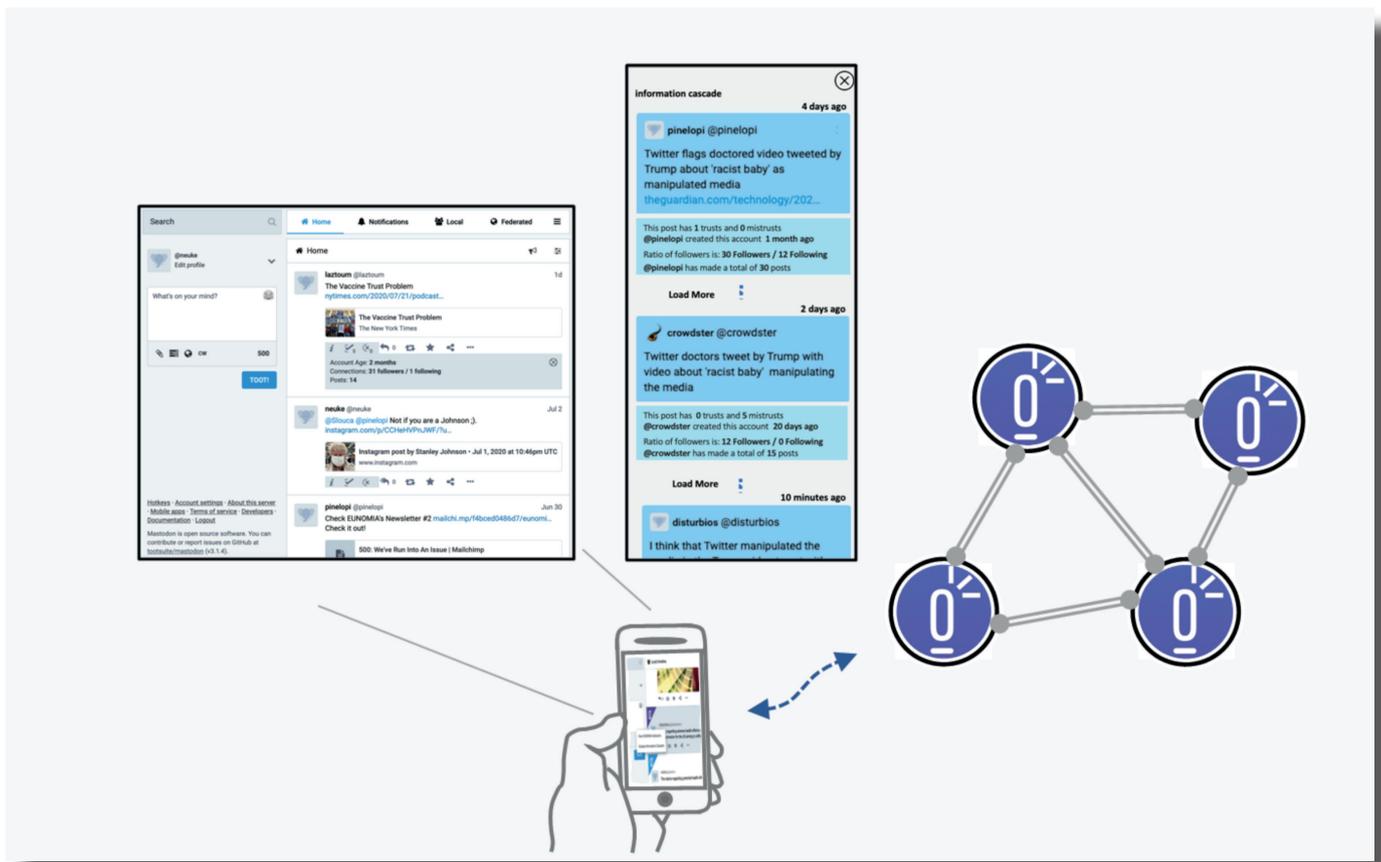




8. PROJECT EUNOMIA - USER-ORIENTED, SECURE, TRUSTFUL & DECENTRALISED SOCIAL MEDIA- (ERASMUS H2020)

Users are the main ally of this initiative; their assessment of the credibility of information is essential to preventing false or misleading content from spreading and to creating a trustworthy information en-

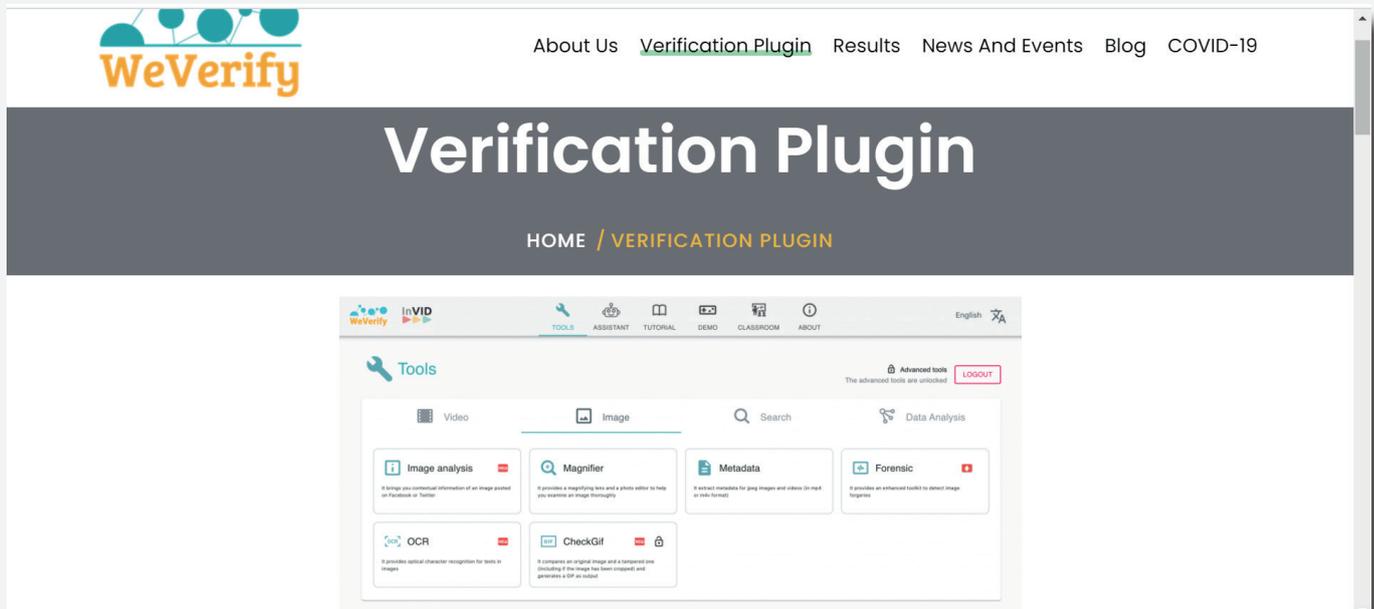
vironment. For this, the tool proposes a series of information trustworthiness indicators based on the application of artificial intelligence, aiding in the classification of information.



9. PROJECT WEVERIFY - DIGITAL SOLUTION TO TACKLE ONLINE DISINFORMATION (ERASMUS H2020)

A participatory verification approach is the leitmotif of this project that uses open-source algorithms, machine learning and intuitive visualization to identify and classify disinformation content in any format: imag-

es, GIFS, video, etc. It offers a verification plugin, a tool to facilitate this analysis and a database of content discredited by users and information professionals.





10. [PROJECT CO-INFORM CO-CREATING MISINFORMATION-RESILIENT SOCIETIES](#) (ERASMUS H2020)

This initiative draws from the participation of the best universities and SMEs from seven European countries. Its main goal is to create tools to promote critical thinking and digital literacy for a better-informed society (citizens, journalists and policy-makers).

The project can be described as a disinformation detection system, but with a partic-

ularity: it offers data that explain why the content that appears on social media is labeled disinformation.

The objective of Co-Inform is to cocreate these solutions, with citizens, journalists and legislators, to spot and combat misleading or false publications and articles on social networks. It also aims to understand and predict which news and disinformation content are more likely to spread based on the social network and geographic space.

Co-inform About Resources Tools Blog Contact us

The Project

Co-creating Misinformation Resilient Societies.

Co-Inform is a EU-funded project involving top universities and SMEs in 7 European countries. The objective is to create tools to foster critical thinking and digital literacy for a better-informed society. These tools will be designed and tested with policymakers, journalists, and citizens in 3 different EU countries.

We develop tools to foster critical thinking for a better-informed society

11. [Project FANDANGO - Fake News Discovery And Propagation From Big Data Analysis And Artificial Intelligence Operations](#)
(Erasmus H2020)

This tool aggregates data, news, sources, social networks, etc., facilitating the detection of false or misleading content because of its ability to cross-check information thanks to artificial intelligence and big data. This technology is used to verify infor-

mation related to the climate, immigration and the European context because these domains are typical fake scenarios where searching for sources and contrasting such content are more accessible. In addition, these are issues that should be monitored for their influence in provoking immediate reactions in public opinion.



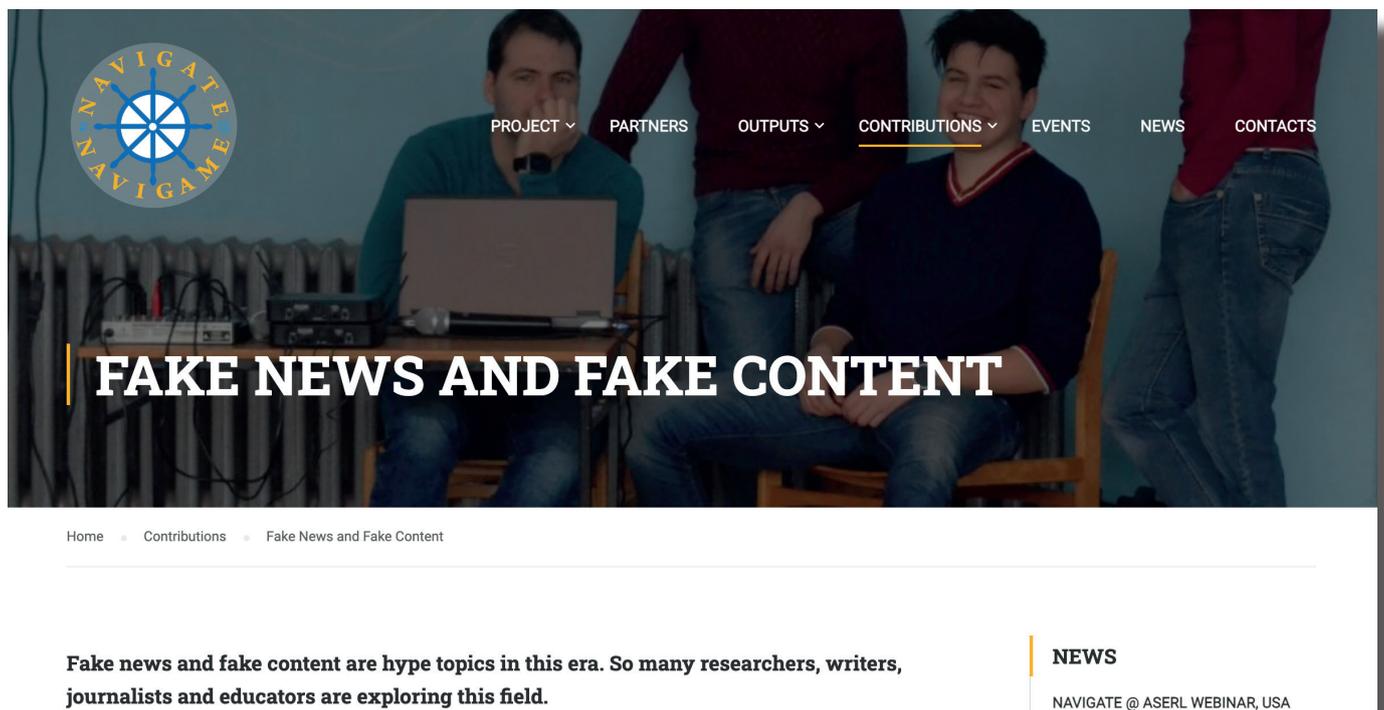
FAke News discovery and propagation from big
Data ANalysis and artificial intelliGence Operations



13. Project NAVIGATE (Erasmus+)

The main purpose of NAVIGATE is to offer a pedagogical model of media literacy training that includes among its pillars the

competencies and skills to combat disinformation in libraries, schools and institutes, using interactive games as the main tool.



8

GLOSSARY: Essential concepts for understanding the information landscape

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Introduction

For young people to face the challenges of an increasingly complex world in terms of information, the first objective of media literacy should be, first, as in almost all learning, to begin with the knowledge and mastery of the language. This involves learning the meaning of words, now also known as “labels” in the online world.

If students understand the nuances and differences that exist between some types of information and another, between good and bad information, they will be able to understand the meaning and intention of the messages that try to mislead them, their variants and their effects. Likewise, they will be better prepared to demand quality information. Just as we cannot understand a football match without knowing what a penalty or a corner means, disinformation harbors numerous technicalities that define it.

Therefore, this first chapter, divided into two different parts (one more theoretical and reflective and another more applied), will help you explain to your students in the classroom what words such as infodemia, fake news and clickbait mean, which we have already integrated into our vocabulary in a natural way and, yet, do not always use rigorously.

Fake News



Part I: Theoretical concepts to understand the social context

Hybrid threats

Hybrid threats are coordinated and synchronized actions originating both in the intelligence services of the countries that create threats as well as in nonstate agents who attack vulnerabilities of the States and their institutions through a wide range of means and in different targets (political, economic, military, social, informational, legal and infrastructural), where cyberspace

is the most versatile tool for their purposes. They encompass both violent and nonviolent forms of confrontation.

A defining characteristic of this type of threat is its ability to exploit the thresholds of detection and attribution of such actions as well as the legal border between war and peace and with it, for example, avert the activation of mutual assistance commitments between States.



The objective of hybrid attacks is to influence the decision-making mechanisms of the victim (State or organization) to undermine the credit, stability or morale of the victim. In addition, the core objectives are almost always the same: damaging the trust of citizens in their institutions, seeding growing distrust in the democratic system, weakening cohesion - whether of the States, of political communities (such as the EU) or of the international organizations (UN, NATO...) - make the system of government brittle and persuade people of the decadence of a political system. These types of attacks aim to achieve these goals both in the civilian populations of the attacked targets and in the population itself.

Hybrid threats can include various situations, including terrorist acts, actions against the cybersecurity of States or their organizations, the actions of criminal groups (such as drug cartels), and maritime disputes (such as those of the South China Sea), restrictions on the use of space, hostile economic acts (export blocking, for example) and covert military operations (the Little Green Men in Crimea).

According to the Council of Europe, when there is no armed confrontation (covert or not), it is more accurate to use the term "hybrid threat" or "hybrid conflict" than "hybrid warfare" because they are not interchangeable concepts. Hybrid warfare combines noncovert armed actions with irregular tactics, such as terrorism and transnational crimes, especially when they

are committed by actors who, apparently sponsored or dependent on a State, do not seem to submit to its authority. These actions also often resort to the use of other means – cyber-attacks, disinformation and propaganda, directed at entire populations or national minorities or other significant minorities - among which are included the corruption of essential civil servants through black money or parallel budgets.

Democracy

Democracy was, according to Giddens, the most powerful active principle of the 20th century, and it was not until then that it was fully developed. It is a system that implies effective competition between political parties that seek to occupy power. Democracy is not an all-or-nothing issue because it has different forms and different levels of depth.

Democracy, apart from being a legal form and political regime, is a "state of affairs" in which, thanks to the division of powers, despotism is reduced. There cannot be full harmony in a democratic regime because the competencies of the powers of the State are contained by one another and limited by the laws, but there can be no oppression because no power - neither that of the people in the hands of the legislator, nor that of the enforcement of rules in the hands of the Government, nor that of the interpretation of the law in the hands of the judges - can be imposed over all. It is different from a revolution, which seeks full harmo-

ny in history through a total modification of use and custom. Democracy works in reality, with possible actions, and aspires to improve life through reform.

Democracy was the inspiring ideal of the American and French revolutions; however, for a long time, its implementation was patchy. Currently, it moves in a paradox: democracy spreads throughout the world and is usually believed to be the best possible mode of government, but in mature democracies, there is a generalized disillusionment with democracy and its possibilities.

In Western countries, levels of trust in politicians decline, fewer people vote than before, and interest in parliamentary politics decreases, especially among young people, while interest in “alternative politics” seems to increase. Not surprisingly, the current communications revolution has weakened traditional power and, at the same time, has produced citizens, in principle, who are more reflective. This tendency causes disaffection in mature democracies, while democracy as an ideal gain followers. Trust has been lost in orthodox democratic methods and in political representatives, but democratic processes have vigor because issues that go beyond the traditional spheres of political power are considered more important, which in turn go beyond the limits of the nation-State - such as effervescent ecological issues, renewed human rights, or sexual freedom.

All this implies that perhaps a “deepening of democracy” is needed where the governed live in the same informational environment as those who govern them, that is, in democratic regimes. If citizens accept less what was traditionally tolerated in a democracy as a normal use of the exercise of power, if they demand more transparency, greater collaboration with social movements and take more account of civil society, it is likely that it will be possible to increase the levels of democratization above the classical level on a transnational scale. The transnational system can contribute to improving the democratic quality of States. The EU is an example. The decisions of the European courts have led to measures that protect individual rights, which govern within the Member States.

Political pluralism

Pluralism is a basic principle of the democratic order that manifests through political parties with democratic organization and functioning and that finds in ideological freedom the necessary foundation for its exercise. Without ideological diversity and without freedom of expression, it cannot exist, and the contemporary constitutions hold pluralism as the supreme value of the legal order, together with the principles of freedom, justice and equality before the law.

In democracies, political parties express pluralism. Without them, which are a mixture of civil society and State, there would



be no democratic society. Their mere presence alone does not guarantee democratic plenitude, but their absence does annul it. The reason is that the parties represent the different ideological or philosophical options for a society and contribute to the shaping and manifestation of the people's will, in addition to being the fundamental instrument of public participation.

Pluralism occurs only if there is free universal suffrage within a legal framework that protects the rights and public freedoms that affect public participation. Without freedom of expression, the right of assembly and demonstration, the right of association, access to public office, periodic elections and the right to vote, there can be no pluralism, no matter how much the legal texts may insist on its existence. These rights need constitutional protection so that opinions can be freely formed and so that political parties or other participatory associations, such as unions, can exercise their activity.

There are other mechanisms, typical of direct democracy, that are also part of political pluralism. The people's initiative and the referendum are perhaps the most relevant within the appropriate normative channels that regulate their exercise and that should be taken into account when calibrating the functioning of pluralism in a society.

Polarization

This indicates that the bulk of the population of a community is divided between two

ideologically opposed extremes. The degree of political polarization of a society is a key variable: the greater the polarization, the more difficult it is to generate broad agreements between groups with different visions to undertake reforms that allow society to advance. As such, strong polarization can lead to irreconcilable positions. It is necessary to differentiate between the polarization of the voters and the polarization of the political parties because they are not the same, nor do they necessarily go hand in hand.

In the United States, polarization has increased compared to 20 years ago. Currently, American voters have fully embraced the ideology of the party with which they sympathize. The consequence has been an increase in antipathy toward the other side.

In Europe, preferences for the most extreme options have increased slightly. However, polarization may not occur in the traditional ideological spectrum of left and right but can manifest itself in specific issues. Currently, society presents greater disagreement than 20 years ago on issues as different as immigration, multiculturalism, European integration, trust in Parliament and satisfaction with government. The only factor prompting greater agreement is the need for policies to reduce inequalities. This greater disagreement on core issues is explained, in part, because positions on some issues have been aligned with ideology—an explanation similar to what has happened in the United States.

European society itself also perceives a growing polarization. More than half of Europeans believe that their country is more divided today than ten years ago. The main factor attributed to this larger division is the tension between people belonging to different political ideologies.

Voters have become increasingly polarized and so has the polarization of political parties. Some academics defend the idea that the growing polarization of political parties has caused a greater rift between the different groups of society. Not surprisingly, in most European countries, there has been a marked increase in the polarization of political parties in the last ten years.

The current political polarization has acquired a structural nature after incubating itself little by little. In the United States, the tendency to live in areas where neighbors have political affinity has increased, which gives rise to more homogeneous groups, and there is a growing gap between electoral behavior and the values of the inhabitants of rural and urban areas. Something very similar happens in Europe, especially with the differences between the countryside and the city.

Post-truth

Post-truth, the Word of the Year in 2016 - according to Oxford dictionaries, although the philosophy of it has been studied in detail since a third of a century ago - is not the opposite of the truth nor a postmodern synonym of a lie. Philosophers as diverse

as Perniola, Vattimo and Frankfurt - with different languages, from belonging to different traditions - had been warning for decades that the triumph of post-truth was going to happen.

Post-truth literally means "what-comes-after-the-truth". It is a total indifference to how things are, in reality, and proliferates because the truth ceases to be interesting. It is not that in this historical moment there are more lies or fewer truths in the West but that the difference between truth and lies has ceased to matter. There is a feeling that it does not matter what is true or false because it seems more important to be able to speak, communicate, transmit and excite.

If the truth does not matter, if there is no trust in the media, if some journalists affirm that what they say is not objective, and if the media that publish lies intend to end up distrusting everything and everyone rather than persuading with manipulated content, post-truth will increasingly surround citizens. Fleeing from it will be hard, and in a democratic society in which ongoing opinion is asked, even on issues of which there is no knowledge, it is normal to lose the desire to know the truth.

Post-truth is more comfortable and more dangerous than lies because lies at least arouse - if there is interest in distinguishing truth from lies - suspicion, which can lead to unmasking of the truth. However, in a post-truth era, this research is not being



carried out. Recognizing the evils that post-truth brings with it, being able to identify slackness and knowing what it means in the history of the West, is one way of worrying about the truth in our democratic orders.

European Union

The EU is an unparalleled economic and political union among 27 European countries. The initial union—which would become the EU over the years—was created after the Second World War and originally encouraged economic cooperation with the idea that trade produces interdependence that reduces the possibilities of conflict. The result was the European Economic Community, created in 1958 to boost economic cooperation between six countries: Germany, Belgium, France, Italy, Luxembourg and the Netherlands. Since then, 22 more countries have joined (although the United Kingdom left the EU in 2020), and a single market has been created - the main economic engine that allows most goods, services, people and capital to move freely - and the purely economic union of the beginnings has become an organization covering different policy areas - climate, environment, health, foreign relations, security, justice, and immigration.

The EU is not a legal entity, for it has a political existence. It is a denomination that encompasses the previous communities - which are its foundation - and intergovernmental cooperation between the Member States. The EU has achieved more than

half a century of peace, stability and prosperity on the continent and has launched a single European currency, the euro, which 19 countries - 340 million citizens - use as currency. It has abolished border controls between EU countries and allows citizens to move freely throughout almost the entire continent. Each EU country must treat EU citizens in the same way as its own in regard to employment, social security and taxation.

The EU is based on the rule of law. All its activities are governed by the treaties agreed upon by the member countries. Law and justice are defended by an independent judiciary. The member countries have conferred on the Court of Justice of the European Union the competence to rule definitively on matters of EU law, and its judgments must be respected by all.

The EU is governed by the principle of representative democracy: citizens are directly represented in the European Parliament - elected by direct suffrage and whose powers have been expanded - while the Member States are represented in the European Council and the Council of the European Union.

The EU is based - as established in the Treaty of the European Union - on the values of respect for human dignity, freedom, democracy, equality, the rule of law and respect for human rights, including the rights of individuals belonging to minorities. These values are part of the European way of life.

Truth

Aristotle said that truth is the adaptation between discourse and reality. There is truth when what is said corresponds to what exists. This Aristotelian definition was maintained without much variation until a few years ago.

The decline in truth originated in the Second World War after the Holocaust, exemplified in Auschwitz. The search for truth that began in Greece ended at a concentration camp, in unimaginable barbarism. In postmodernity, it is believed that the tradi-

tional conception of truth naturally led to dogmatism and, ultimately, to barbarism. It has been mistakenly thought that fundamentalism would be reduced if there was no more truth, for truth is dogmatic.

However, dealing honestly with the real is to conjure up oblivion to combat the unjust face of power. The suppression of truth does not prevent the reproduction of violence, and what appears before the helplessness of the truth is post-truth.



Part II: practical concepts for the information society

News agencies

News agencies are organizations that produce news, reports, interviews and other journalistic material that they offer to their subscribers. The media contract the services of news agencies to quickly obtain information that the media could not otherwise obtain by their own means or to complete

and improve their own information. Some of the main news agencies are Xinhua, Reuters, the Associated Press (AP), TASS, United Press International (UPI), France-Press (AFP) and Agencia Efe. Among their most recent activities is the incorporation of fact-checking as a special category to offer users in debunking hoaxes, rumors, and all types of deception.



Algorithm

An algorithm is a set of rules that, systematically applied to appropriate input data, solve a problem in a finite number of elementary steps. In big data, algorithms analyze millions of consumer data to learn their preferences.

Bot

A bot is a computer program that performs repetitive automated tasks. Such tasks can be imitating a human conversation, using certain phrases with programmed responses, tracking or scanning content on web pages on the network, operating on platforms or social networks, spreading spam, etc.

Hoax

Hoaxes are messages that appear to be true. They can be false data, facts, images, and video or audio files manipulated or decontextualized to give the appearance of truth. Hoax creators seek massive dissemination with the objective of creating alarm, promoting a state of opinion, obtaining some type of benefit and, sometimes, spreading a large-scale joke.

Echo chamber

An echo chamber is a situation in which people only hear, see or read opinions of one type, usually similar to their own. A concept similar to the filter bubble and the intellectual isolation that it implies, adding that effect of reverberating and propagat-

ing within sealed compartments separated from the public, audience or citizenship.

Chatbot

The task of a chatbot is to interact with users using natural language with the purpose of simulating a human conversation.

Cheapfake

A cheapfake is an audiovisual manipulation using inexpensive and accessible computer programs that use conventional techniques such as acceleration, slow motion, cutting, staging or recontextualization of the footage.

Clickbait

Clickbait includes articles, photographs, texts and other apparently informative elements of the internet that aim to attract attention and encourage people to click on links to certain websites. Once the content has been clicked, it usually has nothing to do with the headline that attracts attention.

Verified account

In social networks and platforms, a verified account is an officially recognized account.

Deepfake

Deepfake usually refers to the broader genre of videos that use some form of deep or automated learning to hybridize or generate human bodies and faces. Currently, advanced machine learning algorithms can

be used to manipulate audio and video in a very convincing way, for example, a real politician who delivers a fictitious speech, or vice versa. It is even possible to superimpose the face of another person on a preexisting video recording and digitally reconstruct the voice of a person, their movements, gestures, etc.

Journalistic deontology

Journalistic deontology is constituted by a set of principles and norms that govern journalistic activity. It is common for journalists' associations to have a code of deontology in which these principles and rules of action are materialized under the protection of freedom of expression and the right to information.

In the same way, deontological codes also establish the limits of journalistic activity to prevent other fundamental rights from being violated.

Rebuttal

A rebuttal is an informative message, usually prepared by traditional media and those specialized in verification, that contributes to debunking false or misleading content. For this, the lie, myth, rumor or deception are contextualized, the key reasons justifying why it was crafted is exposed, and the relationship of facts and sources with which it has been checked against is offered. Finally, the medium scores the degree of trustworthiness of that content.

Informational disorder

Informational disorder is a form of message, with the appearance of information, that contributes to misleading, confusing, disorienting or deceiving. There are three types identified by the scientific community:

- Misinformation is information that, unintentionally, as a result of malpractice, human error or misinterpretation of the facts, generates confusion or misleadingly conveys some facts.
- Disinformation is information fabricated, altered or manipulated that has the intention of harming someone/something and confusing and disorienting public opinion, obtaining, in parallel, a benefit.
- Misinformation or malicious information is information fabricated ad hoc to intentionally target someone/something, with a clearly harmful purpose, for racial, religious, ideological, sex, etc. reasons.

Hate speech

Hate speech is public discourse that expresses hatred and/or promotes violence toward a person or group for reasons of race, religion, sex, sexual orientation, ideology or any other condition. It is deliberate and has a clear intention to harm, psychologically, socially or even physically.



Deception

Deception includes false messages created on topics of interest or current affairs to generate social alarm or attract the attention of the largest possible number of users to generate disinformation or redirect toward some other type of fraud.

Misleading

To mislead is to deliberately make someone believe something that is not true.

Fake news

Although the European Commission, together with experts, recommends that the term not be used because it simplifies a complex phenomenon and legitimizes that a news item can be false, we must define it to clarify it.

Fake news is information that is misleading, under the guise of news, that has the deliberate purpose of confusing public opinion and obtaining a benefit from it. Fake news stories use social networks to spread and replicate themselves instantaneously through the collaboration of users, who in many cases contribute to spreading false news without even being aware of it.

Bubble filter

A bubble filter is a situation in which an internet user only finds information and opinions that fit his or her own beliefs and, therefore, reinforce them. This situation is mainly caused by algorithms that greatly

personalize the online experience of an individual.

Information source

Most of the facts or events that become news are not witnessed by journalists. Journalistic information is nourished by data, points of view or documentation provided by an information source. A person, an institution or an organism can provide facts to a communication medium, which must then vet and validate the source for its use as information.

An information source can also contribute their interpretations or opinions about a fact, especially if it is a specialized source.

One of the obligations of journalists is to correctly disclose the origin of the statements and the data obtained from their sources. Correctly identifying who says what is called "attribution".

On some occasions, the sources of information explicitly request from the journalist that they remain anonymous for their own protection. Likewise, sources can give a journalist information as a clue but request that the findings not be published. This is what is known as off the record.

Journalistic genres

The form - the type of text - in which content is presented in a communication medium is called a "genre". The classic journalistic genres, depending on their communicative purpose, are grouped into three broad cat-

egories: news genres (news, informative interview, and informative report), interpretive genres (chronicle, report, and criticism) and opinion genres (editorial, article, column, and graphic humor).

Sometimes, it is not easy to recognize the boundaries between one genre and another, and in recent times, genres have even merged. An example of this is infotainment, a genre that uses an aesthetic and content approach to current information with a sensationalist appearance.

Disinformation farms or troll farms

These involve the organized management of disinformation through the creation of a sufficient volume of false accounts on social networks to create and distribute content capable of disorienting, generating noise and confusing public opinion, even leading to the modification of behaviors. They are called 'farms' due to the industrialized, mechanized, 'breeding' or 'seeding' of disinformation content.

Infodemic

Infodemic is combination of the terms information and epidemic. It refers to the state of overabundance of information, truthful or not, on a subject, becoming difficult to assimilate and, precisely because of this, hindering decision-making and potentially triggering unreasonable behaviors

that propagate with virulence.

Infoxication or information pollution

Infoxication or information pollution is the overload of difficult-to-process information that can generate situations that affect the health of the public, such as anguish, anxiety or paralysis, due to the inability of individuals to analyze substantial amounts of data or messages.

Artificial intelligence

Artificial intelligence is both the theory and the development of computer systems capable of performing tasks that normally require human intelligence, such as visual perception, speech recognition, decision-making and translation between languages, among others.

Lateral reading

Lateral reading consists of evaluating information beyond the content, that is, to contrast the same information in other media and with other sources.

News

News is the essence of journalism. It is the irruption of a fact that is true and current and of public interest, due to its novel, surprising or paradoxical nature, and that has an impact or effect on society.

It is distinguished by the following features:



- Appearance. First, a headline - that phrase that is typographically differentiated by its size and highlighted in bold - serves as a claim to draw attention to the information and present the content of the news in a condensed way. It may contain a subtitle, a sentence or two, also brief, that broadens the headline and anticipates more information inside the news; an image (video or photograph) that illustrates the content; some first lines that will help identify the main questions that the information addresses, i.e., what, who, where, when, how, and even why; and some paragraphs or lines of context that contain sources and data that support the content of the news;
- Language that must be clear, accessible and without grammatical, syntactic or spelling errors;
- Length, usually brief; and
- Rigorous composition based on first-hand information sources, such as witnesses or protagonists of the news and/or fact-checked data of reports and other documents; the purpose is to offer **useful information/service to citizens.**

Critical thinking

Critical thinking is the ability to analyze arguments, make inferences, judge or evaluate and make decisions or solve problems. It is geared toward evaluating situations, ideas or statements that lead to evidence-based

decision-making.

Mobile journalism

The evolution of mobile phones has given rise to one of the most important trends in current information: mobile journalism (MOJO). Mobile journalism is that which can be done with smartphones or tablets. Normally, the information is captured, edited and distributed through these devices.

Propaganda

Propaganda is any persuasive communication aiming to influence human mood and behavior that has to do with politics, ideology or thought.

Rumor

A rumor is a story, statement or news with some interest that may be true, half true or invented, but not official, and that spreads rapidly from person to person.

Seed

Seeds automatically generate disinformation content through ad hoc social media accounts to mislead public opinion.

Conspiracy theory

A conspiracy theory is the belief that powerful and malicious forces secretly move the strings to manipulate certain events or situations. Conspiracy theories have six things

in common: a supposed secret plot; a group of conspirators; “evidence” that seems to support the conspiracy theory; falsely suggesting that nothing is accidental and that coincidences do not exist; nothing is what it seems and everything is related; a division of the world into good and bad; use certain individuals and groups as scapegoats.

Troll

Trolls are users of social networks who deliberately provoke others with their comments and their digital behavior. Their activity fundamentally contributes to increasing polarization, silencing dissenting opinions and stifling legitimate and rational debate. Trolls may have personal motivations or, as in the case of hybrid trolls, work under the direction of another person or organization.

Verification or fact-checking

Verification refers to the systematic process of verifying data and facts to ensure that citizens are better informed. In recent years, numerous journalistic initiatives have been created to fact-check public discourse.

Verification can also be exercised through artificial intelligence software to identify the intentionally misleading content in certain online news. These computer programs are able to detect the characteristics of deception: flashy headlines, humorous expressions, absence of sources, fraudulent web pages, trolls, foul language, spelling errors and fake images.

Viralize

To viralize is to make a message or content viral by sharing it through instant messaging and/or social networks.



Appendices

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Appendix 1

CURRICULAR PROPOSAL FOR INFORMATION (AND DISINFORMATION) LITERACY

Media and information literacy (MAI) has been one of the significant challenges of education for decades. The importance of access to information, its interpretation, and its effects on society's democratic, social and economic dimensions has made Media and Information Literacy a focus of particular relevance within educational systems. This concern for access to information goes hand in hand with the need to analyze the media that generate it and its implications for society. In other words, media literacy provides the competencies and skills necessary for 21st-century citizens to exercise their citizenship fully. UNESCO has been working on the subject for more than 40 years, from the Grünwald declara-

tion (1982) to its most recent proposal of the Curriculum for Educators and Students for Media and Information Literacy (2021). The focus of the issues raised and worked on have evolved from media and information literacy centered on analog media (radio, press, and television) to the analysis of today's eminently digital communication.

Since the advent of information and communication technologies, the information that citizens receive daily has risen exponentially to never imagined, thanks to the expansion of digital media, the reduction of device prices, and the democratization of Internet access. Given this fact, media literacy has become a fundamental element for strengthening democracies through



training that allows the population to analyze the relationship between information, opinion, and knowledge, the owners of the media and their possible interests in the information they generate or the role of citizens as creators of content and information within the digital environment. Different authors highlight that media literacy improves our democracies (Thevenin & Mihailidis, 2012) and the world around us (Hobbs, 2010; Masterman, 1985). Empowering citizens about the importance of information and the media that produce it allows them to analyze and detect the absence or omission of different perspectives in the information published by the different media, as

well as the invisibility or exaltation of specific topics that can influence the construction of public opinion and influence the decisions made by society and its individuals. The development of critical thinking in citizens concerning media and information literacy allows them to be alert about these absences and even act as a megaphone for silenced perspectives, either through public denunciations or through the creation of digital information. The prosumer role (producer and consumer of information) of citizens today becomes a pillar of democracies, as well as other skills and competencies related to media and information literacy.

This reality has been addressed by different European higher institutions, such as the European Commission or UNESCO, with continuous publications on digital competencies, including, for some years now and in an increasingly refined way, media and information literacy. In formal education, on the other hand, media and information literacy have gradually gained access to classrooms through the indications of the European Commission, especially with the European Digital Competence Framework for Educators (DigCompEdu, 2017). Although focused on educators, this digital competence framework includes as one of the highlighted competencies “Facilitating Students’ Digital Competence” and a specific subcompetence dedicated to students’ information and media literacy. However, the sub-competence is developed superficially, without going deeper into media and information literacy, remaining in specific issues of access and interpretation of information and its sources. Moreover, being mainly focused on teachers, the competency and subcompetency are more centered on teaching issues and teachers’ involvement in the tasks of the educational center and its daily life than on learning and competencies developed by students.

However, the recommendations made by the different European institutions have not been taken up in depth in the legislative documents that structure each country’s educational systems. For years, digital competence has been included among the competencies to work on in primary and secondary schools. However, it is included

as a set of general knowledge, skills, and attitudes that are usually focused more on the technical use of digital resources than on the critical analysis of the actions carried out in them, as is the case of media and information literacy. Digital competence, although with its sub-competencies focused on media literacy, is presented as an excessively heterogeneous competence that depends more on the teacher’s willingness to work on one subcompetency or another with the students.

Although slowly, some educational systems are becoming more explicit in developing media and information literacy in their educational legislation. In the case of Spain, for example, an adaptation of DigCompEdu (Resolución de 4 de mayo, 2022) for teacher training in digital competencies has been included in the educational legislation. However, this adaptation contains the same limitations for media and information literacy as the proposal made by the European Commission. It is excessively general, superficial, and focused on teachers rather than students. On the other hand, in the legislation of Compulsory Secondary Education in Spain (Real Decreto 217/2022), there are several calls for concepts such as disinformation or media and information literacy, but always under a very general conceptualization and where different meanings can fit. Moreover, these concepts constantly appear as indicators of learning achievement or describe the competencies to be developed. However, they are not accompanied by concrete educational actions to work with them.



Therefore, from SPOTTED, we work on a digital training platform for media and information literacy that can be used by students both accompanied by the teacher and autonomously and independently, thanks to the scientific validation of the questionnaire and the personalization of the training process carried out thanks to technology. We understand that the strength of the platform, as well as the more significant learning of the students, can be enhanced by working it face-to-face and adapting the training process to the characteristics of the context. To this end, we offer some brief recommendations in the form of pedagogical strategies, didactic methodologies, content, and learning outcomes proposals that may be useful as a dynamic curricular proposal to work with students on media and information literacy in the classroom.

However, before starting with the recommendations, we would like to emphasize the importance and more significant potential of learning when adapted to the students' contextual reality. Both to their knowledge of the social, political, economic, and educational context in which they live and their learning strategies. With this, we want to

emphasize that there is no single perfect educational process for all students in the world and that the context provides us with much relevant information to enhance the teaching-learning process and information and media literacy.

Below, we offer a series of pedagogical and didactic recommendations to work on media and information literacy in the classroom. Each proposal can be adapted to the teacher's characteristics, the students, and the educational space.

Pedagogical Strategies:

Pedagogical strategies help us to base the educational process on scientific principles about how we construct knowledge and how we can foster student motivation, which is one of the fundamental elements for effective learning to take place.

- **Constructivism and Meaningful learning:** The importance of bringing the knowledge worked on closer to what the students already know. To take advantage of the classroom to establish



relationships between students and the world around us, both cognitively and socially. Meaningful learning, with the scaffolding between what the student already knows and what he/she is going to learn, is a fundamental element for the student's motivation and provides significance to what is new, to what is learned, to what continues to build the structure of each individual's learning. This significance is also provided when students work with their peers, discovering new meanings from previous knowledge. They collaboratively approach knowledge with the teacher's support.

- Transformational and Student Protagonism: The search for concrete actions that can transform a nearby reality is a very motivating element for students. Working from a problem to find solutions is a learning process in which various competencies are imbricated. Analyzing the problem, thinking

about its roots and possible alternatives, and making decisions to solve it place the student at the center of the process, fostering motivation and autonomous development. Furthermore, developing and implementing these solutions in their immediate environment can generate relations with other projects related to the reality being worked on, in this case, information and media literacy.

- Collaborative approach: Collaboration among students and other classes or institutions in the school environment favors working on a shared reality with other people. This brings a greater closeness to the knowledge worked on and a more plural and heterogeneous view of this reality. Collaboration helps to deepen learning from different edges and perspectives.

Didactic Methodologies:

Didactic methodologies offer us a framework for action concerning specific learning objectives. We will use one methodology or another depending on the depth or breadth of the learning we want to achieve.

- **Problem-Based Learning:** Problem-based learning is an excellent methodology for multi-session, in-depth classroom work. Establishing a problem to be solved by students during the learning process develops students' critical thinking, as well as their decision-making and creative thinking. Facing a problem, they have to analyze it to find its causes; relating it to the content worked on and proposing a solution is a complete methodology for working with current critical information and media content.
- **Case study:** Selecting texts of opinion or information for the class to work on an in-depth analysis is an excellent opportunity to reinforce the knowledge. The case study can be done individually, in groups, or even with the whole class.
- **Cooperative Learning:** Collaborative work among students is a fabulous way to share knowledge and strategies. What one partner contributes can be complemented by another or even be criticized and have diverse opinions within the group. Being able to argue and collaborate becomes a challenge while learning from plurality about media and information literacy.
- **Contextual Analysis:** Working with texts is a possibility, as we have seen with case studies, but they are also an opportunity to inquire more deeply into the context of the opinion or information itself. Going deeper into the owners of the media that publish it, the interests that the information/opinion may hide, and their relationships is a robust methodology to go beyond the superficial aspects of the text.
- **Productions:** Having students become producers of information, opinion, and disinformation is a compelling way of working with media and information literacy. Assuming the role of the producers of that same information will make them feel in the shoes of the people who have to make it, making their decisions, facing ethical issues, and working on all of them. Producing as a role-play where students assume the role of producers is an excellent opportunity to learn by doing (learning by doing).



Content Proposals and their Learning Outcomes:

We propose a series of contents that could be worked on in the classroom concerning media and information literacy in an orientation way, leaving open the design and planning of the didactic intervention to adapt it to the context of each educational

process. Accompanying the contents, we propose some possible learning outcomes that can guide the teaching action. These objectives can always be complemented by others or adapted to the needs of the educational process.

Content Proposals	Possible Learning Outcomes
Differences between opinion and information.	<ul style="list-style-type: none"> • Check informative articles taking into account the verifiability of their sentences. • Recognize textual features of an opinion. • Acquire critical thinking skills to question a text.
Disinformation: Case studies.	<ul style="list-style-type: none"> • Recognize textual features of an opinion. • Acquire critical thinking skills to question a text. • Raise awareness of digital strategies to trace the source of information.
Verifiable or not verifiable, that is the question.	<ul style="list-style-type: none"> • Raise awareness of digital strategies to track the source of information. • Acquire strategies for applying lateral reading and questioning information. • Evaluate multiple sources of information to consider a final evaluation of a text/publication.
Skills to question a text.	<ul style="list-style-type: none"> • Acquire critical thinking skills to question a text. • Evaluate multiple sources of information to consider a final evaluation of a text/publication. • Become a competent online content consumer by recognizing different types of misinformation.
Lateral reading. Verifying the information.	<ul style="list-style-type: none"> • Raise awareness of digital strategies to track the source of information. • Acquire strategies to apply lateral reading and question information. • Become a competent online content consumer by recognizing the different types of misinformation.
The plurality of information to develop critical thinking.	<ul style="list-style-type: none"> • Critically analyze online content. • Acquire critical thinking skills to question a text. • Acquire critical thinking skills to question the relationship between visual and verbal content to determine its correct interpretation. • Acquire critical thinking skills to reflect on the reliability of information by evaluating the language and images used.
Low Risk of Manipulation.	<ul style="list-style-type: none"> • Evaluate multiple sources of information to consider a final evaluation of a text/publication. • Understand the main features that characterize low-risk forms of disinformation. • Critically analyze online content.
High-Risk of Manipulation.	<ul style="list-style-type: none"> • Critically analyze the different forms of information clutter that users can find online. • Critically analyze online content. • Understand the “high-risk” manipulation techniques hidden in misleading content.



<p>Disinformation and its impact on society.</p>	<ul style="list-style-type: none"> • Become a competent online content consumer by recognizing the different types of disinformation. • Raise awareness of the impact of “information clutter” on society and democracy. • Raise awareness of the social consequences of online and social media content-sharing practices.
<p>Audiovisuals can also be manipulated: photos, audio, and videos for disinformation.</p>	<ul style="list-style-type: none"> • Raise awareness of the impact of “information clutter” on society and democracy. • Raise awareness of the social consequences of content-sharing practices online and in social networks. • Acquire critical thinking skills to reflect on the reliability of information by evaluating the language and images used.
<p>Impact of our behavior commenting on social networks.</p>	<ul style="list-style-type: none"> • Raise awareness of the impact of “information clutter” on society and democracy. • Raise awareness of the social consequences of content-sharing practices online and in social networks. • Acquire critical thinking skills to reflect on the reliability of information by evaluating the language and images used.
<p>Sharing information is a great responsibility.</p>	<ul style="list-style-type: none"> • Acquire critical thinking skills to question the relationship between visual and verbal content to determine its correct interpretation. • Raise awareness of the social consequences of online and social media content-sharing practices. • Acquire critical thinking skills to reflect on the reliability of information by evaluating the language and images used.
<p>Is it true or click-bait?</p>	<ul style="list-style-type: none"> • Become a competent online content consumer by recognizing the different types of misinformation. • Understand the “high-risk” manipulation techniques hidden in misleading content. • Acquire critical thinking skills to reflect on the reliability of information by evaluating the language and images used.





Bibliographic references

European Commission, Joint Research Centre, Redecker, C. (2017). European framework for the digital competence of educators: DigCompEdu, (Y. Punie, editor). Publications Office. <https://data.europa.eu/doi/10.2760/159770>

Hobbs, R. (2010). Digital and Media Literacy: A Plan of Action. A White Paper on the Digital and Media Literacy Recommendations of the Knight Commission on the Information Needs of Communities in a Democracy. The Aspen Institute.

Masterman, L. (1985). Teaching the media. Routledge.

Real Decreto 217/2022, de 29 de marzo, por el que se establece la ordenación y las enseñanzas mínimas de la Educación Secundaria Obligatoria. Boletín Oficial del Estado, 76, de 30 de marzo de 2022. <https://www.boe.es/buscar/pdf/2022/BOE-A-2022-4975-consolidado.pdf>

Resolución de 4 de mayo de 2022, de la Dirección General de Evaluación y Cooperación Territorial, por la que se publica el Acuerdo de la Conferencia Sectorial de Educación, sobre la actualización del marco de referencia de la competencia digital docente. Boletín Oficial del Estado, 16, de 16 de mayo de 2022. <https://www.boe.es/boe/dias/2022/05/16/pdfs/BOE-A-2022-8042.pdf>

Thevenin, B., & Mihailidis, P. (2012). The Re-Politicization of Media Literacy Education. *Journal of Media Literacy Education*, 4 (1), 61 – 69.

UNESCO. (1982). Declaración de Grunwald. Declaración promulgada por representantes de diecinueve naciones en el Simposio Internacional de la UNESCO sobre la Enseñanza de los Medios. República Federal de Alemania.

UNESCO. (2021). Think Critically, Click Wisely! Media and Information Literate Citizens. UNESCO.

Appendix 2

Recommendations for including media and information literacy in the pisa rankings of the OECD

For more than two decades, the PISA test has been taking an x-ray of the state of the educational systems of different nations through standardized tests applied to all these countries. Beyond the possible criticisms that the application of these tests can and does raise, PISA has served as a thermometer to know the state of future citizens in different competencies. In this way, it has functioned as an essential variable when making decisions within the educational systems when detecting potenti-

alities or deficiencies in the competencies analyzed.

PISA has introduced some changes since its first application in 2000. However, the competencies analyzed have been maintained throughout its different applications, working on mathematical, reading, and scientific competencies. On one occasion, PISA introduced problem-solving competency, but this change did not last over time. The competencies analyzed are of great importance in the functioning of societies. There-



fore, we understand that it is logical that they should have particular significance as an indicator of the correct development of educational systems and the achievement of essential competencies in society.

However, advances and new knowledge are arriving that fundamentally change our society. The challenges that arise for society are unknown due to these changes. One of them, perhaps the one that has changed our lives the most recently, has been technology and all that it has meant for our

daily lives at both the micro and macro levels. Technology is here to stay and changes everything around us at breakneck speed. One field that has undergone the most changes with the arrival of technology has been the field of information. The Internet has democratized the ability to create media (anyone could have their blog and spread it through social networks). But, at the same time, the Internet made it possible to blur the line between what is an opinion and what is information, that the audience

of disinformation has grown exponentially or the paid virality for political campaigns adapted to a segmented society in targets.

These changes in communication, information, and disinformation are the challenges of 21st-century society and put our democracies at risk for the benefit of manipulation campaigns that hide other interests. The effectiveness with which disinformation has influenced democratic processes should call our attention to address them in a coordinated manner from all institutions to defend the right to information. The training of citizens in media and information literacy to be able to recognize what is information, what is disinformation and

what is an opinion, to know how to detect manipulation, to understand how the media works, etc., are competencies that any citizen living in a democratic society should develop so that freedom and legitimacy continue to govern our communities.

Therefore, media and information literacy should be included transversally in all educational systems. The information society needs citizens capable of critically analyzing information to make decisions independently and not under the interests of third parties. In order to be able to work in-depth, students must develop the concepts, skills, and abilities of this competence, and teachers must also become competent citi-



zens in analyzing information and media to teach it effectively.

Including media and information literacy in the PISA test could provide data on developing this competence as an essential value for analyzing and understanding the state of our democracies. Knowing the degree to which students are proficient in the tools and knowledge necessary to deal with information disorders thus becomes an essential indicator of the health of our democracies. Developing exercises based on scientific evidence for the analysis of the media and information literacy of our students through the PISA test would allow us to recognize the problem. Then, with the

PISA test results, we can take the first step to analyze the situation in which we find ourselves as citizens. Furthermore, it would allow us to decide on the most urgent training needs regarding the different sub-competencies that can be worked on within media and information literacy. The problem is present in our societies, and the educational system must take responsibility for tackling it through training. To this end, inclusion in the PISA tests is vital to place ourselves in a more global context and to know the informational strengths and weaknesses with which we coexist as a society.

Welcome to **Project SPOTTED**

(School Policies to Tackle and Detect ~~Fake-News~~ /
School Policies to Detect and Stop Disinformation)

*Guide for the
Media and information literacy
of school children*

Herrero-Diz, P. y Muñoz-Velázquez, J.A. (editores) (2022).

