MASTERARBEIT / MASTER'S THESIS

Titel der Masterarbeit / Title of the Master's Thesis

„Journalism in times of 'disinfodemic': The impact of Covid-19 disinformation on the media landscape. A case study in Flanders (Belgium)"

verfasst von / submitted by

Alexandra Matthys

angestrebter akademischer Grad / in partial fulfilment of the requirements for the degree of

Master (MA)

Wien, 2020 / Vienna 2020

Studienkennzahl lt. Studienblatt / degree programme code as it appears on the student record sheet:	UA 067 805
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Acknowledgements

This thesis was completed in unusual and chaotic circumstances due to the ongoing health crisis. Even though corona was literally everywhere, I thoroughly enjoyed the research I have undertaken. When I contracted Covid-19 myself it became even more interesting and relevant, especially when my friends recommended me some fictional (and already debunked) Covid-19 cures.

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Abstract

The Covid-19 pandemic has generated a tsunami of information. In turn, this has given rise to a surge in fake news and disinformation which is deemed to be as dangerous and rapidly spreading as the virus itself at a time when correct information can save lives. Journalists, the people that are expected to provide the public with reliable information, are facing economic, professional, psychological and legal challenges due to the pandemic. Using the situation in the Belgian region of Flanders as a case-study, this thesis will examine how Covid-19 related disinformation has impacted the media landscape in a democratic country with both a high level of press freedom and resilience to online disinformation. In order the answer the research question, semi-structured qualitative interviews were conducted with Flemish media actors. Furthermore, the thesis elaborates on how the Covid-19 infodemic has manifested itself around the world, and in what ways the coronavirus pandemic has challenged news media both on a worldwide scale and on a local one. Its aim is to add to the literature on Covid-19 disinformation in general and on the phenomenon of disinformation in Flanders in specific.

Abstract (German)

Die Covid-19-Pandemie hat eine Flut an Informationen ausgelöst. Diese hat wiederum zu einer Zunahme von Fehlmeldungen und Desinformationen geführt, die als genauso gefährlich angesehen werden und sich auch genauso schnell verbreiten wie das Virus selbst und dies gerade zu einer Zeit, in der korrekte Informationen Leben retten können. Journalisten, von denen erwartet wird, dass sie der Öffentlichkeit verlässliche Informationen liefern, stehen aufgrund der Pandemie vor wirtschaftlichen, beruflichen, psychologischen und rechtlichen Herausforderungen. Anhand einer Fallstudie der Situation in der belgischen Region Flandern wird untersucht, wie sich die Desinformation im Zusammenhang mit Covid-19 auf die Medienlandschaft in einem demokratischen Land mit einem hohen Maß an Pressefreiheit und Widerstandsfähigkeit gegenüber Online-Desinformation ausgewirkt hat. Um die Forschungsfrage zu beantworten, wurden halbstrukturierte qualitative Interviews mit flämischen Medienakteuren durchgeführt. Darüber hinaus wird in der Arbeit erläutert, wie sich die Covid-19-Infodemie weltweit gezeigt hat und auf welche Weise die Coronavirus-Pandemie die Nachrichtenmedien sowohl weltweit als auch lokal herausgefordert hat. Ziel ist es, die Literatur zur Covid-19-Desinformation im Allgemeinen und insbesondere zum Phänomen der Desinformation in Flandern im Besonderen zu erweitern.

Introduction

"[W]e're not just fighting an epidemic; we're fighting an infodemic. Fake news spreads faster and more easily than this virus, and is just as dangerous", declared the director of the World Health Organization Tedros Adhanom Ghebreyesus (Zarocostas, 2020). Besides fighting the SARS-CoV-2 virus and its massive impact on worldwide public health, another virus needs to be tackled, namely the one of fake news and disinformation.

From the very beginning, Covid-19 related disinformation has been taken seriously. The importance of having access to reliable information on the pandemic has been repeatedly stated to be possibly lifesaving. This implies that being denied this access, either because trustworthy information is drowned out by irrelevant messages or by widely circulating disinformation can potentially affect the public health negatively.

For this reason, it is valuable to look into the phenomenon of Covid-19 disinformation and how it has developed so far. Only when the phenomenon is better understood, it can be appropriately addressed. Though the corona pandemic might be still 'in full swing', certain worldwide trends have already been demarcated. By now it is clear that on all continents corona related mis- and disinformation have been circulating. In some places these (intentionally) false messages were spread by political or religious leaders, while in others the spreading of fake news messages was exacerbated by already existing issues, such as a lacking confidence in government institutions.

In this sense, journalists and news media are one of the main actors that are capable to counter these streams of false and inaccurate information by providing its public reliable and correct reporting. This task, however, is accompanied by the challenges that the health crisis poses to the journalism sector and the journalistic practice. Furthermore, to a certain extent, it seems to be expected that journalists are able to move mountains, as the inundation of online disinformation seems to be no match for traditional journalism. The pandemic caused the public to have a new appreciation for news media, while pushing the sector's back against the wall.

In order to fully understand the impact of the Covid-19 infodemic in the context of a country that is said to be highly resilient to online disinformation, this thesis examines the following research question: *how has the media landscape in a country with both a high level of press freedom and resilience to online disinformation been affected by this Covid-19 'disinfodemic'?* It does so by taking the situation of the Flemish media landscape as a case-study and on the

basis of the insights of the people who are named by Belgians to be the most responsible to identify and stop the spread of fake news, namely journalists. In-depth, qualitative interviews with Flemish media actors were conducted in order to shed light on the topic of this thesis.

With the aim of better understanding the universe surrounding the research question that structures this work, the phenomena of fake news, misinformation and disinformation are explained. Furthermore, the history of fake news and the difference with the contemporary disinformation we face today is outlined.

Then, the thesis turns to how the Covid-19 infodemic has manifested itself around the world and concrete examples are given about the actors that have been disseminating mis- and disinformation. Furthermore, it is illustrated that the corona crisis functions as an amplifier of pre-existing tendencies, such as a lacking confidence in institutions, and how it points out a lack of science journalism worldwide.

Next, several journalistic roles are discussed with a focus on the gatekeeper and watchdog role. Further, the journalistic activity of sourcing is discussed and how this practice changes in times of crisis. Besides sourcing, also the journalistic activity of fact-checking is taken a closer look at, as this is one of the main fake news mitigation strategies that are used today. The role of journalists in the fight against fake news is also questioned. Should they really be the ones countering and monitoring online disinformation? The end of this section sums up how the pandemic concretely impacts and complicates the (sometimes dire) situation journalists find themselves in.

Lastly, the case-study is introduced, and it is explained why Flanders is a region worth studying in the context of disinformation. The rather under-researched phenomenon of disinformation is addressed in the Flemish context and Belgium' resilience to online disinformation is discussed. Finally, the interview method and gathered data are reviewed and the findings are analyzed in the results section. The thesis is concluded by a general conclusion where the thesis' findings are summed up and its limitations explained.

Theoretical and conceptual framework

Definition of concepts: misinformation, disinformation and fake news

News is supposedly – and normatively – based on truth, which makes the term 'fake news' an oxymoron (Tandoc et al., 2018, p. 140)

The term 'fake news' has crept into our standard vocabulary and pops up regularly in newspaper headlines and articles despite its oxymoronic meaning. Even though it is not a new term, it has been given new connotations and definitions over the years. This section will delve deeper into these different meanings and specify how the term is used in the context of this thesis.

In order to be precise, it is necessary to specify the difference between disinformation and 'fake news'. Disinformation has a broader scope than 'fake news', since "it refers not only to 'news' but also to all kinds of 'distorted' information" (Billiet et al., 2018, p. 12). More specifically, the term is defined as "false, inaccurate, or misleading information designed, presented and promoted to intentionally cause public harm or for profit" by the European Commission's High Level Expert Group (HLEG) on fake news and disinformation (European Comission, 2018, p. 10).

The similar sounding term 'misinformation' refers to the "unintentional publication of false or misleading information" (Humprecht et al., 2020, pp. 494–495). In other words, as long as there is no foul play and the disseminated information is not deliberately incorrect or it is possible to attribute it to a lack of knowledge, it is not considered to be 'fake news', nor disinformation.

Important to note is that the difference between news and 'fake news' is not perceived as clear-cut as it might seem at first sight, since, for example, a study made by Nielsen and Graves (2017) found that "[p]eople see the difference between fake news and news as one of degree rather than a clear distinction" (Nielsen & Graves, 2017, p. 1). Thus, there exists a continuum that connects news and 'fake news', rather than a dichotomous division (Billiet et al., 2018).

The expression 'fake news' has become quite a loaded term because of several reasons (see e.g. Bennett & Livingston, 2018; Billiet et al. 2018; European Commission, 2018; Wardle & Derakhshan 2017). First of all, the use of 'disinformation' is favored over 'fake news', since the latter the term "is inadequate for describing the complex phenomenon of the 'information pollution', given that fake news also refers to content that is not completely 'fake' but is fabricated, and is mixed up with facts and practices that have very little to do with news" (Billiet et al., 2018, p. 11). A second reason mentioned is that using the term 'fake news' does not

clearly express the "deliberate and often automated dissemination of these reports", such as *bots*, disguised advertisement, or organized trolling (ibid.).

Thirdly, it is dubbed to be a misleading term, since "it has been appropriated by some politicians and their supporters, who use the term to dismiss coverage that they find disagreeable" (European Comission, 2018, p. 10). This way, calling something 'fake news' can be used as "a weapon with which powerful actors can interfere in circulation of information and attack and undermine independent news media" (ibid.). The Fake News Awards created by Donald Trump is one such example of an attempt by a government leader to undermine the mainstream press (Bennett & Livingston, 2018).

Interestingly, the contemporary use of the term differs from earlier definitions given to it. A study by Tandoc et al. (2018) concluded that over the past fifteen years

> studies have applied the term to define related but distinct types of content, such as news parodies, political satires, and news propaganda. While it is currently used to describe false stories spreading on social media, fake news has also been invoked to discredit some news organizations' critical reporting, further muddying discourse around fake news. (Tandoc et al., 2018, p. 138)

The terms 'fake news' and 'disinformation' will be used interchangeably throughout this thesis, even though I realize the former term is a contested one, it "ties in [best] with the current social debates in the media" (Billiet et al., 2018, p. 12). Moreover, it is a widely used term by journalists around the world when writing about Covid-19 disinformation.[1] When used, the term refers to the contemporary use in order to describe false stories, and also points to disinformation. Furthermore, the term excludes satire and parody when used in the thesis. It solely refers to deliberate misleading news, thus tying into the definition of disinformation.

Additionally, I realize that when media use the term "it tends to frame the problem as isolated incidents of falsehood and confusion" (Bennett & Livingston, 2018, p. 124). Naturally, this is an unnuanced perspective, and the way fake news is approached in this thesis is from a systemic nature.

[1] The term is used by journalists around the world to write about mis/disinformation related to the coronavirus see e.g.: (BBC, 2020b; Le Figaro avec AFP, 2020; Samios, 2020; The Times of India, 2020), and is also featured on official websites such as the ones of the UN, the EU, ECOWAS, etc.

A short history of fake news

Falsehood flies, and truth comes limping after it, so that when men come to be undeceived, it is too late; the jest is over, and the tale hath had its effect (Swift as cited in Burkhardt, 2017, p. 6).

It is tempting to mainly link mis/disinformation and fake news with the present century. Specifically, the year 2016 seems to take a prominent position in public (Western?) memory on mis/disinformation. Since that year a lot of scholars have been researching and writing about fake news and its influence. According to several studies, the current president of the United States, Donald J. Trump would not have won the 2016 presidential election without the presence of fake news, for example (Allcott & Gentzkow, 2017; see e.g. Dewey, 2016; Parkinson, 2016; Read, 2016). Another regularly quoted example is the 2016 Brexit referendum. All of these events sparked discussion about how different types of mis/disinformation impact democracies (Wardle & Derakhshan, 2017). Important to keep in mind is that "[w]e're only at the earliest of stages of understanding their implications" (Wardle & Derakhshan, 2017, p. 4).

The events of four years ago might have culminated to a tipping point regarding research on contemporary misinformation, and turned the term 'fake news' into a buzzword (Tandoc et al., 2018). However, the term "has a long history, long predating President Trump's recent obsession with the phrase" (Wardle & Derakhshan, 2017, p. 16). The same applies for the phenomenon of mis/disinformation, as this is also not a new issue. What is novel to the contemporary situation are the technological advancements of this period, or as *The Guardian* journalist Natalie Nougayrède points out: "[t]he use of propaganda is ancient, but never before has there been the technology to so effectively disseminate it" (Nougayrède, 2018). Thus, in order to understand what is happening in the present, it is necessary to take a look at how fake news manifested itself in the past.

Some of the first known examples of misinformation and the like in the Western world date back to "at least the Roman times when Anthony met Cleopatra" (Posetti & Matthews, 2018, p. 1). In this particular case, the Roman general Mark Antony[2] was a victim of a smear campaign which was started by his political rival, Octavian. During the campaign, Anthony's relationship with Cleopatra is emphasized, and reached the people in the form of "short, sharp slogans written upon coins in the style of archaic Tweets" (Kaminska, 2017). These *avant-garde* tweets were successful, depicting Marcus Antonius as someone who had "gone awry: a philanderer, a

[2] also known as Mark Anthony, or Marcus Antonius.

womaniser and a drunk not fit to lead, let alone hold office", and that "Antony had been corrupted by his love affair with Cleopatra" (ibid.). It is said that "[f]ake news had allowed Octavian to hack the republican system once and for all" (ibid.).

This particular example ties into other similar scriptures which were produced before the era of the printing press, as "the information of these writings was usually limited to the leaders of the group" (Burkhardt, 2017, p. 5). Having power over the disseminated knowledge, had enormous consequences, since "[t]hose controlling knowledge, information, and the means to disseminate information became group leaders, with privileges that others in the group did not have" (Burkhardt, 2017, p. 5). After the invention of the printing press it became possible to let information travel farther, and the literate controlled the dissemination of information and hold the power to "manipulate information to those who were not literate" (Burkhardt, 2017, p. 5). Accompanied with the rising literacy rates, printing and selling information became a business (Burkhardt, 2017).

Some early examples in the West which can be seen as the predecessors of today's 'fake news', are Italian satirist Pietro Aretino's 16th century writings in the style of *pasquino*, also known as "anonymous lampooning", which were characterized by "a new level of satire and parody" (Burkhardt, 2017, p. 6). In France fake news existed in the form of *canard*, which denotes "an unfounded rumor or story" (Burkhardt, 2017, p. 6). Just like today fake news was also criticized in the 18th century. Irish author Jonathan Swift, for example, denounced the harmful consequences of political fake news in his essay *The Art of Political Lying* published in the British newspaper *The Examiner*. "Falsehood flies, and truth comes limping after it, so that when men come to be undeceived, it is too late; the jest is over, and the tale hath had its effect", Swift writes (as cited in Burkhardt, 2017, p. 6).

In the previous century, fake news broadcasts and reports saw the light of day with the arrival of radio and television. Orson Welles's *War of the Worlds* is a famous example of a fictional broadcast – it claimed that the world was invaded by aliens – and "[w]hile this broadcast was not meant to be fake news, those who missed the introduction didn't know that" (Burkhardt, 2017, p. 6). Over time, the way fake news was produced, and the amount of people that could be reached changed drastically. This culminated with the advent of public internet, as it "provided new means for disseminating fake news on a vastly increased scale" (Burkhardt, 2017, p. 6). Since the present century, it is possible to share both correct and false information on a global scale with very little means and effort.

An influential cousin of fake news is propaganda. During the Cold War misleading information was internationally broadcasted in order to convince people to take sides (Posetti & Matthews, 2018). One of the many countries where this had far-reaching consequences was Indonesia. An intense anti-communist propaganda campaign was started in response to the murder of six Indonesian Army generals by the so-called 30th September Movement on 1 October 1965. Even though it remains unclear who was responsible for the operation General Suharto accused the Communist Party of Indonesia (PKI). Subsequently, at least half a million alleged communists were executed, and "[t]he military dictatorship that formed afterward, led by Suharto, made wildly inaccurate anti-communist propaganda a cornerstone of its legitimacy and ruled Indonesia with U.S. support until 1998" (Bevins, 2017).

The so-called "Flemish Secession Hoax" in 2006 is a more recent example of fake news. On 13 December 2006 it was announced during the broadcast of a docu-fiction called *Bye Bye Belgium* that Flanders declared its independence from the rest of the country. This news bulletin was broadcasted by the RTBF, the francophone Belgian public broadcasting service, and its "spectators were shell-shocked by the brutally plausible turn Belgium's suppurating tradition of ethnic tensions had just taken" (Collard, 2014, p. 544). Even though there were several indicators that this news was false and a hoax, a lot of people believed that it what they saw was in fact real.

The year 2016 emerges in the literature as the year where concern was raised regarding the effect of fake news on democratic elections. Firstly, the elections in the United States come to mind. Together with the 2016 American elections, the Brexit referendum is deemed to be "among the most prominent examples of disinformation campaigns intended to disrupt normal democratic order" (Bennett & Livingston, 2018, p. 122).

In the American case, there are indicators that fake news disseminated by social media played an important role in influencing the American voters. It was proved that the majority of American adults use social media to catch up with the news, and that popular fake news stories circulated more on the social platform Facebook than mainstream widespread news stories (Allcott & Gentzkow, 2017). Furthermore, it was established that "the most discussed fake news stories tended to favor Donald Trump over Hillary Clinton" (ibid.). One of those false stories that targeted Hillary Clinton was the so-called 'Pizzagate'[3] story.

[3] According to this story then presidential candidate Hillary Clinton was connected to a pedophile ring run in a pizza joint, Comet Ping Pong, based in Washington D.C. . This story led to a man, Edgar Welch, going to the pizza place and firing shots in an attempt to free these "child sex slaves" (Fisher et al., 2016).

A similar case as in the United States happened in the Philippines during the 2016 election campaign, as social media was used to influence the public opinion about a certain candidate. In the Philippines's case this was Rodrigo Duterte, and it is claimed that also in this case "[s]ocial media was a crucial factor in electing this president", (Ressa, 2016). During the Philippine election campaign Duterte's critics were targeted by fake social media accounts that were united by the same goal: "a fanatic defense of Duterte, who's portrayed as the father of the nation deserving the support of all Filipinos" (ibid.).

This was the first time in Philippine history that such a "political propaganda machinery" was used to influence an election campaign and anti-mainstream media propaganda has been circulating on social media since (ibid.). There is reporting of "many disinformation campaigns […] since the election period: social media campaigns meant to shape public opinion, tear down reputations, and cripple traditional media institutions" (ibid.). Media that criticize the government's financed disinformation campaigns are targeted, after identifying the government's role in these campaigns "CEO and Editor in Chief Maria Ressa and many of her staff continue to be subjected to unrelenting online harassment linked to the State", for example (Posetti & Matthews, 2018, p. 8).

Contemporary disinformation

We have access to more information and evidence than ever, but facts seem to have lost their power (Pomerantsev, 2019, p. 153)

Despite fake news' lengthy history, it is argued that this phenomenon poses a bigger challenge today than in the past, one of the reason being the increase of false information circulating online (Allcott & Gentzkow, 2017, p. 214). Since recently, scholars have been arguing that the world faces an arrival "of the misinformation society" (Pickard, 2016, p. 119) due to the misinformation shared on widely used social media platforms such as Facebook. Furthermore, not only the 2016 presidential campaign has been one of the key moments of the rise of fake news, also the very beginning of Donald Trump's presidency indicated that what is considered to be 'a fact' would be from that moment on regarded as something volatile.

This was, for instance, illustrated by the Counsellor to the President Kellyanne Conway, who coined the phrase 'alternative facts' hours after Trump's inauguration in 2017 when defending the disappointing size of the inauguration ceremony's crowd (Strong, 2017, p. 137). From that

moment on these words stand for "a willingness to persevere with a particular belief either in complete ignorance of, or with a total disregard for, reality" (ibid.).

Additionally, the past few years have also been characterized as being the 'post truth' era,[4] which is possibly explained by "the daunting mix of institutional decline, public sphere disruptions, and the growing attack on journalism and enlightenment values" democracies are currently facing (Bennett & Livingston, 2018, p. 134). 'Post truth' is explained by Oxford Dictionary as follows: "relating to or denoting circumstances in which objective facts are less influential in shaping public opinion than appeals to emotion and personal belief". Thus, terms and descriptions like 'alternative facts', 'misinformation society', and 'post truth' indicate that in our present world truth is not any longer a given.

Disinformation is a global phenomenon and deals with a plethora of subjects, such as politics, climate change, and health issues (see infra). This is, as already mentioned, not a novel phenomenon, however there are indications which imply that it is increasing. One of the causes that underlies the rise of fake, is the emergence of 'the fake news genre' which is defined as "the deliberate creation of pseudojournalistic disinformation" (Egelhofer & Lecheler, 2019, p. 97). Reasons why false news is created are, for example, to push a specific political agenda, e.g. the advancement of partisan agendas (Bennett & Livingston, 2018), and the "lust for ad revenue" which is characteristic of the highly commercialized news media (Pickard, 2016, p. 119). Thus, roughly there are two main reasons distinguishable which motivate fake news creation: either fake news is created because of pecuniary reasons, or due to ideological motives, however this is a non-exhaustive list (Allcott & Gentzkow, 2017).

Moreover, fake news' growing importance is explained by the low entry barriers in the media industry and its commercialization, and because of the increase in social media use, since social media platformed are called "well-suited for fake news dissemination" (Allcott & Gentzkow, 2017). These possible explanations go hand in hand with a global declining trust in mainstream media,[5] which is named to be possibly "both a cause and a consequence of fake news gaining more traction" (Allcott & Gentzkow, 2017). Finally, increasing political polarization is also a possible instigator, as "this could affect how likely each side is to believe negative fake news stories about the other" (Allcott & Gentzkow, 2017).

[4] An illustrative example of this is that in 2016 'post-truth' was named 2016's international word of the year by Oxford Dictionaries, influenced by both the 2016 Brexit Referendum and the US elections (Wang, 2016).
[5] According to *Reuters institute digital news report 2020* less than 40 percent (38%) of the respondents said they "(38%) said they trust most news most of the time" (Newman et al., 2020, p. 9)

Contemporary disinformation is not only caused by technological advancements, and the media landscape's commercialization but also by deeper-rooted problems of erosion of democratic institutions, as democratic societies are facing a "breakdown of trust in democratic institutions of press and politics" (Bennett & Livingston, 2018, p. 127). In the case of the European Union, for example, data recorded in 2019 show that 61% of the European respondents distrust their national governments and only 34% trust this institution (The European Commission, 2019, p. 57). This trend contrasts with the last century, when "in the high modern period of democracy, in the mid to late 20th century, trust in institutions was greater and public authorities commanded more control over public information" (Bennett & Livingston, 2018, p. 127). The declining levels in government institutions is, thus, identified as one of this century's challenges.

Additionally, an increasing "legitimacy crisis" is identified in today's democratic states and this affects disinformation flows as well (Bennett & Livingston, 2018, p. 127). Bennett and Livingston (2018) warn that the "breakdown of core processes of political representation, along with declining authority of institutions and public officials opens national information systems to a mix of strategic disinformation from both national and foreign actors" (Bennett & Livingston, 2018, p. 127). It is also observed that "various patterns of disruptive movements, parties and disinformation can be found in most democracies today" (Bennett & Livingston, 2018, p. 130).

Yet, the erosion of democratic institutions may seem in certain countries not as obvious as in other ones. This explains why people who feel still connected to and place their trust in these institutions, are likely to disregard fake news stories and other forms of disinformation. For these political centrist individuals it is easy to ignore these narratives which "appear on the surface to be blatantly false and bizarre stories", consequently the way these narratives empower certain citizens is missed, since these kinds of stories "may appeal to deeper myths and emotions among publics who support anti-democratic policies such as limitations on the free press and restrictions on civil liberties" (Bennett & Livingston, 2018, p. 131).

Fake news is not solely spread by websites such as the ones targeting the American 2016 presidential elections, even though there were some remarkable ones operating. For instance, it was discovered that "more than 100 sites posting fake news were run by teenagers in the small town of Veles, Macedonia" (Allcott & Gentzkow, 2017). It is, in fact, a global phenomenon having an impact on countries around the globe (Allcott & Gentzkow, 2017). In the Global South similar examples can be found. Take for example Brazil, where "[c]omputational propaganda in forms such as bot networks, fake news and algorithmic manipulation play key

roles in the political system in Latin America's largest democracy" (Arnaudo, 2017, p. 6). During anti-government protests in 2015 the influence of fake news was noticeable, since "53 percent [of the protesters believed] that a drug gang represented the armed wing of the [workers'] party", and "43 percent believed that the party had brought 50,000 illegal Haitian immigrants into the country to vote in the 2014 elections" (Arnaudo, 2017, p. 18).

Furthermore, in places "were [sic] no data is available on public belief in fake news, we can still deduce from reports on real world consequences that fake news were believed" (Tsfati et al., 2020, p. 159). This is illustrated by The International Fact-Checking Network's (IFCN) open letter to Facebook's Mark Zuckerberg which gives examples of such events. The IFCN suggest that in countries such as in Nigeria and Nepal, places where data is scarce, fake news has led to the incitement of violence which indicates that the phenomenon has an influence there as well (IFCN, 2016).

Misinformation and Covid-19 worldwide

Access to reliable and accurate information is critical at the best of times, but during a crisis such as the ongoing COVID-19 pandemic, it can be a matter of life and death. (Posetti & Bontcheva, 2020, p. 1)

Medical misinformation

Since 2016 the majority of the literature on mis- and disinformation focus on the political side of this phenomenon. However, this does not entail that other aspects of the public debate are not affected by it, as "'information pollution' contaminates public discourse on a range of issues" (Wardle & Derakhshan, 2017, p. 10). Unfortunately, also the medical field is included in this range of issues, which is troublesome as "medical mis-information has always posed a worldwide threat to health" (Wardle & Derakhshan, 2017, p. 10). Important to note is that despite this threat, the impact of medical misinformation is understudied (Kreps & Kriner, 2020, p. 1).

When the world is facing a pandemic of a disease only recently discovered, a flow of quality information is vital. This not only to properly inform people on how to tackle the disease, but also to diminish the public's feelings of uncertainty and fear. The latter is of utmost importance regarding the fight against any forms of mis- and disinformation, since "[u]nder periods of

such uncertainty and anxiety, the public is more susceptible to misinformation, which in turn self perpetuates", and can lead to a negative impact on the public's health (Leng et al., 2020, p. 7).

These health related risks are directly and indirectly distinguishable. Directly, it is evident that wrong information about health issues can prevent the population of dealing with this correctly, and therefore can have life-threatening consequences. Some life-threatening claims that were shared online about the coronavirus for example, were the "claims that firecrackers and drinking boiling water will cure the virus" (Leng et al., 2020, p. 8). This finding is reflected in UNESCO's first policy brief on Covid-19 disinformation, which the introductory quote of this section indicates: "Access to reliable and accurate information is critical at the best of times, but during a crisis such as the ongoing COVID-19 pandemic, it can be a matter of life and death" (Posetti & Bontcheva, 2020, p. 1). Reasoning from this line of thought, disinformation can directly affect people's health.

On the other hand, scholars have established that there are more indirect threats associated with medical misinformation. In their study on the pervasiveness and persuasiveness of medical misinformation on Covid-19 in the United States, Kreps and Kriner, for example, provide evidence that Americans struggle, and many even fail, to identify fact as true and to recognize fake news as false (Kreps & Kriner, 2020, p. 2). Even though the study reveals that Covid-19 misinformation is limitedly remembered, it does threaten "public health – not by causing majorities to believe erroneous claims, but by saturating the information environment to an extent that it drowns out accurate information" (Kreps & Kriner, 2020, p. 2).

Covid-19 related misinformation is not a new phenomenon. For instance, in 2014 during the Ebola crisis tweets from Guinea, Liberia, and Nigeria containing medical misinformation were circulating online. An alarming observation was that during the researched time frame "[m]ost tweets and retweets contained misinformation, and misinformation had a much larger potential reach than correct information" (Oyeyemi et al., 2014, p. 1). Similarly, during the Zika virus pandemic "misinformation has been spread about the disease, its pathophysiology, prevention and treatment" (Venkatraman et al., 2016, p. 421). Research in 2016 on the kinds of misinformation circulating about the virus proved that several websites published conspiracy theories which deviated from the scientific consensus. For example, one conspiracy theory argued that the Zika virus "is part of a plan to reduce world population", while another one stated that the virus "is part of a plan to undermine national sovereignty" (Venkatraman et al., 2016, p. 2).

Interestingly, some of the same fake claims that are made in this current pandemic have appeared in previous international epidemics. Several of the abovementioned incorrect claims and conspiracy theories "have featured in every recent international outbreak – such as SARS (2002-2004), H1N1 (2009-2010), MERS (2012-2013), Ebola (2014-2015) and Zika (2015)", despite time and again being debunked by health authorities (A. Nguyen & Catalan-Matamoros, 2020, p. 324).

Since misinformation on medical issues is not a new phenomenon, it is important to gain a deeper understanding of the reasons why people fall for (medical) misinformation, and misinformation concerning the pandemic in specific. Digital media plays a significant role in the dissemination of mis- and disinformation, though scholars also point to the "deep-rooted socio-political problem that has a longer history than the Internet itself" (A. Nguyen & Catalan-Matamoros, 2020, p. 324). This refers to the possibility that – despite fact-checkers and WHO's mythbusters – "people are still willing to believe in things that, by normal intellectual standards, are unmistakably unscientific or counterintuitive" (A. Nguyen & Catalan-Matamoros, 2020, p. 324).

There is a plethora of reasons why individuals are willing to do so. Some are cultural (see e.g. Leng et al., 2020; Ogola, 2020), or depend on the individual's health, science, and also media literacy, and differ from socio-cultural contexts (A. Nguyen & Catalan-Matamoros, 2020, p. 325). Others stem from preexisting beliefs, which are considered to be hard to change. Kuklinski et al. (2000) concluded in a study on political misinformation that people need to be "'hit between the eyes' with the right facts" to be able to change their incorrect beliefs (Kuklinski et al., 2000, p. 810). This is subsequently nuanced by the authors, as they assert that "it is likely that even those 'hit between the eyes' with facts will eventually return to their original beliefs and preferences" (Kuklinski et al., 2000, p. 810).

Further possible explanations are linked to the feeling of uncertainty that information about the coronavirus raise with the public. In turn, this uncertainty generates fear, since there is a lot of unclarity connected to the pandemic, take for example the enormous variety in countries' responses and – not always obvious – installed measurements. This makes it also difficult to gather all the available information on the matter and "[e]ven systematic information seekers and processors […] are hard-pressed to learn enough about the virus and its impact to feel even modestly efficacious" (Dunwoody, 2020, p. 472). This "avalanche of inconsistent, sometimes misleading information can dramatically increase perceptions of uncertainty" (Dunwoody, 2020, p. 472).

One likely reaction of individuals is attempting to reduce these distressing feelings by, for instance, simply burying the problem in order to cope with the situation. This leads to total information avoidance about the pandemic and a 'business as usual' attitude (Dunwoody, 2020, p. 472). Another, comparable strategy, is what is called the "optimism bias" (Weinstein cited in Dunwoody, 2020, p. 472). This implies that when reading factual information about risks we believe that others are more likely to encounter those than we are. Resulting in individuals to disregard the presented information, and "perceive ourselves as more immune to a risk than […] others" (Dunwoody, 2020, p. 472).

Furthermore, people like to rely on 'rules of thumb', which can be efficient, but can also enable people to base their decision-making process on "rather superficial information" (Dunwoody, 2020, p. 472). Research also provides evidence that some persons are merely "cognitively 'lazy'", which makes them susceptible for misinformation in general (Kreps & Kriner, 2020, p. 2). In case of medical misinformation, this results in being more likely to believe rumors, and "[t]he more prevalent a rumor […] the more credible it becomes and the harder it is to upend" (Kreps & Kriner, 2020, p. 2).

For example, in the abovementioned study made by Kreps and Kriner this results in the finding that less than half of the respondents could remember "the factual headline about treatments for Covid-19", and "only one in three respondents recalled and believed factual headlines conveying Covid-19 treatment information" (Kreps & Kriner, 2020, p. 4). Even though Covid-19 related misinformation is still very much under-researched it is worrisome that Kreps and Kriner's analysis indicates that misinformation about Covid-19 is more frequently believed and remembered than previous political misinformation (Kreps & Kriner, 2020, p. 8).

In other words, people do not change their minds easily, and when they do so this does not always happen rationally. Because of this, it is claimed that not everything can be blamed on the Internet and social media, as "digital media act more like an acute catalyst for mis/disinformation to surface in an environment where factual knowledge and evidence-based reasonsing [sic] do not always rule" (A. Nguyen & Catalan-Matamoros, 2020, p. 325). This entails that the go-to fake news mitigation strategy, namely fact-checking and thus providing correct scientific information is not enough, which is important to take into account when thinking about other possibilities to diminish fake news' messages influence.

These abovementioned strategies to cope with information can be problematic when we encounter a new threat, one like Covid-19, of which our knowledge is limited. It raises a pivotal

question: “how can we extract reliable information when we encounter a novel threat *and* when our information environment is awash in contradictory information?” (Dunwoody, 2020, p. 472).

Generally, further research on how individuals deal with (scientific/health) information is needed. Just like more in-depth knowledge needs to be acquired about “how digital media facilitate or hinder the interaction between rational factual knowledge on one hand and emotions, values and beliefs on the other, and how it shapes public engagement with the health and science issues at stake” (A. Nguyen & Catalan-Matamoros, 2020, p. 325). This way a better understanding can be gained of how to efficiently deal with the rapidly expanding amount of health and science mis/disinformation in general and about Covid-19 in specific (A. Nguyen & Catalan-Matamoros, 2020).

The Covid-19 infodemic

In January 2020 a “global surge of all sorts of coronavirus-related mis/disinformation” was observed (A. Nguyen & Catalan-Matamoros, 2020, p. 324). The coronavirus was claimed to be “a secret attempt by the global elite to reduce overpopulation”, “a bioweapon by the Chinese state to control the world”, and in order to cure it, it was stated that “eating garlic, drinking hot water, avoiding ice creams or wearing salt-coated facemasks will keep the virus at bay” (A. Nguyen & Catalan-Matamoros, 2020, p. 324). Furthermore, the alarming claims were made that “drinking bleach, chlorine dioxide, colloidal silver or one’s own urine can help kill the virus” (ibid.). Just like the virus itself, incorrect information about Covid-19 spread like wildfire.

“[W]e’re not just fighting an epidemic; we’re fighting an infodemic. Fake news spreads faster and more easily than this virus, and is just as dangerous”, the director of the World Health Organization Tedros Adhanom Ghebreyesus declared during the Munich Security Conference held on 15 February 2020 (Zarocostas, 2020). This infodemic with its overwhelming “inundation of [both fake and factual] information”, about Covid-19 makes it difficult for the public to distinguish fact from fiction (Kreps & Kriner, 2020, p. 8). As a result people may “operate in a veritable fog of information overload, and rather than sift through it, many […] simply tune it out” (Kreps & Kriner, 2020, p. 8).

The term infodemic refers to "a large increase in the volume of information associated with a specific topic, the growth of which can occur exponentially in a short period of time due to a specific incident, such as the current pandemic" (Garcia & Duarte, 2020, p. 1). When this happens not only factual information circulates about the topic in question, but also misinformation, conspiracy theories and disinformation enter the scene. The content of these messages range of being blatant falsehoods to statements of a dubious nature, and are said to spread "farther and faster, like a virus", through social media platforms (ibid.).

Even though medical misinformation is not a novel phenomenon, the Covid-19 infodemic is, however, regarded as "the tipping point of a long-simmering process that facilitates the stubborn refusal to retreat of such false theories" (A. Nguyen & Catalan-Matamoros, 2020, p. 324), and labelled the "first true social-media infodemic" (Hao & Basu, 2020). Given the immediate impact of the widely circulating Covid-19 disinformation on "every person on the planet, and upon whole societies", and the health risk it entails, the infodemic has been renamed "disinfodemic" by some (Posetti & Bontcheva, 2020, p. 2).

There is a plethora of ways in which the Covid-19 infodemic is manifested. Below several examples from all over the world are provided. First the global course of misinformation will be discussed with a more specific focus on Wuhan, China where the first Covid-19 cases were reported. Then, some questionable measures introduced in an attempt to control this infodemic are elaborated on. Further, some specific examples are given of different actors behind circulating misinformation such as the state, religious leaders and political leaders. Lastly, two already existing worldwide tendencies which were exacerbated by the health crisis are pointed out, namely an increasing lack of confidence in institutions and a shortage of science journalism.

The global course of Covid-19 misinformation

At the onset of the pandemic most messages circulating on social media platforms revolved around the origin's of the SARS-CoV-2 virus. This was mirrored in the amount of origin related fact checks that were done around that period, according to First Draft an organization that tries to fight mis- and disinformation online (John, 2020). Additionally, fact checkers were also preoccupied with "responding to a relatively high number of conspiracy theories, many of which spread baseless claims, such as that the virus was created in a lab as part of a bioweapons program" (ibid.). One month later in March, the subject shifted to different ways to cure the

coronavirus, which in turn entailed the dissemination of false, and sometimes dangerous, cures and treatments of the virus (ibid.).

As time passed by and the cases increased globally, the misinformation became more convoluted, as "the topics that fact checkers addressed increasingly drew on complex political and social phenomena" (ibid.). The dissemination of messages about certain communities spreading the virus has been constant from the beginning of the pandemic, and fact-checks knew a peak in April. "False claims and baseless accusations that certain communities were spreading the virus" were frequently made (John, 2020), engendering, among other things, Islamophobic disinformation (Wazir, 2020), and racist anti-Asian post on social media (Macguire, 2020).

When in December 2019 the first Covid-19 case was reported in Wuhan, **China** there was an initial delay before the Chinese government "took utmost efforts to control the spread of the disease" (Shaw et al., 2020, p. 1). The moment the Chinese authorities decided to do so in mid-January, other Chinese regions and countries were already affected. Besides an increase in cases, a "tsunami of information" surrounding the new coronavirus was identified (ibid.). This enormous wave of information, or infodemic consists partially of fake news, such as conspiracy theories, hoaxes, and other forms of disinformation about, among other things, the origins of the virus and possible treatments (ibid.).

In China the Covid-19 infodemic has resulted in an increase in messages on "fictitious 'cures', such as garlic and Shuanghuanglian, a traditional Chinese medicine" (Leng et al., 2020, p. 2). An analysis of online messages circulating from the end of January until end of March, suggests that three waves of misinformation could be distinguished in China during the researched time frame. Firstly, there was the wave that found place after the announcement of Wuhan's lockdown on 23 January 2020. An increase "of sensationalizing information" was observed, and the lockdown in Wuhan caused incorrect stories to circulate about "lockdowns of other cities and ridiculous policies in Wuhan" (Leng et al., 2020, p. 4).

Then followed a surge in sensationalist misinformation that focused on "possible modes of transmission, cures, and prevention methods" (Leng et al., 2020, p. 4). As a result messages were circulating claiming that the coronavirus was spread "through mosquitoes, flies, and through the sewer" (ibid.). The third peak in misinformation observed found place in the beginning of March. During this month the focus of misinformation messages was mainly on

fake news about Italy and reopening schools (Leng et al., 2020, p. 6). Generally, the two key characteristics were "sensationalism and scaremongering" (ibid.).

Controlling the infodemic

Different countries have different methods they use in an attempt to curb the infodemic, however not every method applied is deemed to be equitable for its aim. Anti-fake news laws, censorship, and infringements on freedom of speech have been rampant in countries like China, India, Iran, and Hungary.

Chinese authorities, for instance, have cracked down on the dissemination of fake news, in **China** also known under the synonymous term 'rumors' (Rodrigues & Xu, 2020). From the end of January there were "strict measures not to promote fake news and panic from the initial stage" in place (Shaw et al., 2020, p. 7). Furthermore, the country's state media and censored 'intranet', which includes popular Chinese social media platforms such as Weibo and WeChat, had to abide with the authorities' cyber governance (Rodrigues & Xu, 2020). Additionally, local governments launched campaigns to fight "locally relevant fake news", and so-called "rumour-mongers" could be legally charged and detained (Rodrigues & Xu, 2020, p. 4). On top of that propaganda banners could be found throughout the country calling for civilian obedience; they read: "Do not produce, circulate or believe rumors and be law-abiding citizens" (ibid.).

The Chinese approach towards fake news seems to have paid off, since the state has "effectively restricted the circulation of fake news/rumors during COVID-19 outbreak" (ibid.). However, concerns have been raised on the authoritarian method as state censorship has been rampant and vital rights such as freedom of speech have been disregarded under the guise of fighting the Covid-19 infodemic (Rodrigues & Xu, 2020).

Other countries on the continent faced similar issues. **India**, for example, "stands out for its extreme practice of turning off the Internet to quell the spread of rumours on WhatsApp", and continued to use this strategy in an attempt to curb fake news and disinformation during the corona crisis (Rodrigues & Xu, 2020, p. 2). Also in **Iran**, one of the countries that was hit by the pandemic quite early, "[c]oronavirus "misinformation" has become another reason to put more people behind bars" (Alimardnai & Elswah, 2020).

The European Commission expresses its worry about measures deployed to fight this infodemic are actually being used "to undermine fundamental rights and freedoms or abused for political

purpose in and outside the European Union", and therefore emphasizes the increased need of "free and plural media", in order to tackle Covid-19 disinformation and properly inform the public (European Commission, 2020, p. 10). The Commission is as well concerned about the laws its member states, such as **Hungary**, have introduced to curb the spread of disinformation (see infra).

Misinformation by states and political leaders

Around the world different actors are trying to hijack the coronavirus narrative and try to do so through sharing misinformation. In several cases this role is played by the state itself. Politicians and government officials together with "State-orchestrated networks" were named "top sources of COVID-19 disinformation", in a recently published survey which aimed to study the global effect of the pandemic on journalism made by the International Center for Journalism (ICFJ) and Tow Center for Digital Journalism at Columbia University (Posetti et al., 2020, p. 3). In addition, political leaders and other public figures add fuel to the fire by showing their support for unsubstantiated claims surrounding Covid-19. We will take a look at some cases where governments themselves are attempting to control the narrative with the help of fake news, and touch upon the role of political leaders Donald Trump and Jair Bolsonaro in the disinformation landscape.

At the time of writing, Africans seems to "have been spared the brunt of the pandemic", as Covid-19 cases are quite low compared to other continents (Wadvalla, 2020, p. 1). Although it is claimed that this can be explained by "the limited testing capacity and poor reporting systems" , it is also argued that "Africa's lower COVID-19 cases can be attributed to early mitigatory responses enhanced by leveraging existing infection control systems, and the general low risk of virus importation from COVID-19 hotspots" (Chitungo et al., 2020).

Nevertheless, it is said that the African continent faces "a double Covid-19 crisis", as it has to tackle both the "crisis of the pandemic" and simultaneously an "information framing crisis" (Ogola, 2020, p. 440). At the bottom of this double crisis lies the rivalry between several actors in an attempt to gain legitimacy over the narrative about the pandemic. Next to the framing of actors such as the Church, civil society, and the general public, there is the narrative that is constructed by the African governments. This narrative proves that also in this continent the coronavirus has become a politicized issue. In an attempt to cover up the problems that the pandemic has exposed, such as poor health systems and infrastructure, "the default response

from governments has been denial, secrecy, even official misinformation" (Ogola, 2020, p. 440). As a result, "alternative narratives of the Covid-19 crisis" have been circulating online (ibid.).

This state-built misinformation is not a new phenomenon and citizens have taken it to social media to "contest such management and to call governments to account" (Ogola, 2020, p. 441). For instance, the hashtag #covid_19ke has been used by Kenyans on Twitter to criticize their government's inadequate response to the coronavirus (ibid.). Unfortunately, **Kenya** is not an exception, since generally African state related public health messaging has been regarded with mistrust by their citizens for years. Consequently, Africans' "reaction to government information thus tends to be one of apprehension and ambivalence as many people are aware that these governments have often been interested foremost in (political) control of the message than the message itself" (Ogola, 2020, p. 441).

Even though Beijing might have been successful in curbing Covid-19 related fake news nationally (see supra), **China** has been receiving an enormous amount of criticism on its international information campaign by both Europe and the United States. It is claimed that China, like other countries, has made use of the politicization of the Covid-19 infodemic "to manipulate international relations and politics" (Zhao, 2020, p. 452). The Chinese government has been accused of conducting an information campaign in English creating "an Us vs US" on social media, such as Twitter and Facebook in an attempt to "tell its own story of the pandemic" (ibid.). This strategy fits into the bigger picture of China exercising soft power, and attempting to "have its political and socio-cultural values and behaviors acknowledged by other global community members" (ibid.).

This creation of an 'Us vs US' world feeds into the idea of China to challenge the United States as "the dominant global superpower", since 'Us' "refers to China and/or its allies who are opposed to 'US'" (Zhao, 2020, p. 453). With this narrative China emphasizes the Americans' unsatisfactory coping of the pandemic. Furthermore, Beijing underscores the information that is positive about its country and to highlight the messages that report negatively about the US, and the government is claimed to "suppress information that is positive about 'US' and negative about 'Us'" (Zhao, 2020, p. 453).

In order to do this, Beijing does not shy away from using disinformation, a striking example of the information campaign is the moment when Lijian Zhao, the spokesperson of the Chinese Foreign Ministry posted a tweet with a link to "a poorly verified article which claims that Covid-

19 originated in the US" (Zhao, 2020, p. 454). Sharing such dubious information is counteractive for citizens around the world that are searching for accurate information on the coronavirus and feeds the uncertainty that surrounds the virus, since "[a]udiences' attention may be deflected from the real health and science problems in the pandemic, for which China shoulders global responsibilities" (Zhao, 2020, p. 456).

The **European Union** has also not been spared of misinformation campaigns. In June the European Commission (EC) released their strategy to tackle the Covid-19 disinformation the EU member states are facing. In this Joint Communication the EC lists the major challenges the coronavirus induced infodemic causes, and while doing so the Commission draws attention to the serious repercussions disinformation can have, such as: "it can lead people to ignore official health advice and engage in risky behavior, or have a negative impact on our democratic institutions, societies, as well as on our economic and financial situation" (European Commission, 2020, p. 2). Some encountered examples of the Covid-19 infodemic are listed by the EC as follows :

> "dangerous hoaxes and misleading healthcare information", "conspiracy theories that may endanger human health […] for example conspiracy and myths about 5G installations spreading COVID-19", "illegal hate speech […] such as the worrying rise in COVID-19 related racist and xenophobic content", "consumer fraud", and "cybercrime". (European Commission, 2020, p. 3)

At the end of this (non-exhaustive) list the EC proves that they do not shy away of naming and shaming countries that produce Covid-19 related disinformation, namely **Russia** and **China**. The statement reads:

> Foreign actors and certain third countries, in particular Russia and China, have engaged in targeted influence operations and disinformation campaigns around COVID-19 in the EU, its neighbourhood and globally, seeking to undermine democratic debate and exacerbate social polarization, and improve their own image in the COVID-19 context. (European Commission, 2020, p. 3)

In order to counteract the misinformation that circulates online the EC – just like the WHO – has introduced a website that aims to provide authorities information about the pandemic and clarifies what are the facts and what is fiction.[6] Furthermore, on the European External Action Service's (EEAS) website EUvsDisinfo[7] special reports on the narratives and disinformation around the coronavirus pandemic are published regularly in an attempt to curb the infodemic. The EU also set up communication campaign in multiple countries to, for instance, "to counter

[6] See https://ec.europa.eu/info/live-work-travel-eu/health/coronavirus-response/fighting-disinformation_en
[7] See https://euvsdisinfo.eu/

narratives about the EU's lack of assistance to third countries" (European Commission, 2020, p. 7). Measures to fight corona related mis- and disinformation are also installed beyond the EU's borders, such as in the Western Balkans and in Africa, thus EU's "immediate neighbourhood" (European Commission, 2020, p. 7).

Just like countries such as China and Russia, the **United States** have been facing, serious critique concerning their role in the infodemic. The American president Donald Trump caused a commotion after suggesting that injecting bleach would be a possible treatment of the coronavirus during a White House coronavirus task force briefing in April (BBC, 2020a). Furthermore, Trump recommended an under-researched medicine to battle Covid-19 in his Tweets. When suggesting that chlorine and hydroxychloroquine – which have proven to be effective to treat diseases such as malaria – can also be used to cure Covid-19 while evidence of this had been merely anecdotal (McLaughlin, 2020).

Sharing such poorly researched information can have far-reaching consequences. In Arizona, for instance, a man inspired by Trump's allegations died after taking a non-pharmaceutical version of chloroquine (Waldrop et al., 2020). Lastly, Trump repeatedly made use of racist and anti-Asian labels such as "the Chinese Virus" (Chiu, 2020), and "kung flu" (BBC, 2020c) when speaking about the SARS-CoV-2 virus, encouraging xenophobia and racism worldwide.

The contradiction between the official communication of public health authorities, such as the Centers for Disease Control and Prevention (CDC), and the messages that are send by American political leaders and celebrities hampers the American health community's efforts of urging citizens to adopt "preventive behavior" such as the wearing of mouth masks, to curb the spread of Covid-19 (Romer & Jamieson, 2020, p. 1). Additionally, several conspiracy theories about the coronavirus were circulating both on social and traditional media (Romer & Jamieson, 2020). Believing in such theories is "likely to undermine the motivation to take action in the current pandemic" (Romer & Jamieson, 2020, p. 2).

For instance, research suggests that preventive measures, such as wearing a mouth mask, were less likely to be adopted when the individual held conspiracy beliefs (Romer & Jamieson, 2020). Furthermore, when someone holds a conspiracy belief, it is proved to make them more hesitant towards future vaccination against Covid-19, which "could undermine the country's ability to bring COVID-19 to heel" (Romer & Jamieson, 2020, p. 2). Of course, conspiracy theories are not a phenomenon that is solely unique to the American media landscape. However, this landscape is a highly polarized one, and it has been established that politically conservative

media outlets help the circulation of conspiracy theories about the corona pandemic in the US (Romer & Jamieson, 2020).

Another country hit particularly hard by the pandemic is **Brazil**. On 11 October the country's health ministry reported that more than 150,000 Brazilians had died because of Covid-19. At the time of writing Brazil has "the second-highest coronavirus death toll in the world, after the US, and the third-highest number of cases after the US and India" (BBC, 2020d). The president, Jair Bolsonaro is characterized as possibly the biggest threat to the country's Covid-19 response (The Lancet, 2020). When he was asked about the rapidly growth in Covid-19 numbers in the beginning of May his answer was: "So what? What do you want me to do?" (The Lancet, 2020).

So just like in the United States, Brazil's president takes center stage in the dissemination of misinformation about the coronavirus (Galvão, 2020). For example, Bolsonaro "repeatedly resisted recommendations made by scientific experts and governors to engage in physical distancing", and even fired the Minister of Health after disagreeing about this topic (Barberia & Gómez, 2020, p. 367). Furthermore, he promoted just like his American counterpart, the use of hydroxychloroquine to cure Covid-19, which is an unproven treatment (Barberia & Gómez, 2020; Galvão, 2020). Just as Trump, Bolsonaro is part of the public figures and political leaders which "act as though they can say whatever they want about COVID-19, spreading conspiracy theories and inaccurate information without fearing accountability" (Galvão, 2020).

An "intense circulation of fake news" about the pandemic has been identified in Brazil (Garcia & Duarte, 2020, p. 1). Messages claiming that "the COVID-19 cases do not exist, with images of vacant hospital beds, and information about homemade methods for preventing coronavirus contagion, treatment without scientific proof of its efficacy, and conspiracy theories that put the pandemic down to a political strategy" are circulating on social media platforms (ibid.). Besides, research indicates that the Brazilian population is inadequately informed about the coronavirus. There are "possible information gaps about some of the main forms of prevention, thus contributing to the spread of false information", which makes Brazilians less protected against the virus (ibid.).

Misinformation by religious leaders

Besides governments and particular political leaders spreading misinformation, fake news about Covid-19 appears to be widespread by several religious leaders around the globe. These

leaders disregard the scientific supported anti-Covid-19 health measures on the basis of religious arguments, and as a consequence certain religious communities find themselves torn between science and their faith when searching for an adequate response to the coronavirus pandemic.

In Africa religious leaders are active across the continent and have constructed a spiritual framing of the corona crisis. In **Nigeria**, for example, Islamic scholar and university professor dr. Abubakr Imam Aliagan told reporters that "we the Muslims already have a potent immune system against coronavirus", but also added that necessary precautions should be taken (PRNigeria, 2020). Protestant **Ethiopian** prophet Israel Dansa has claimed to his more than one hundred thousand followers on Youtube that he "saw the virus completely burned into ashes" because of his powerful praying (quoted in Lichtenstein et al., 2020).

In **Tanzania** the government refuses to prohibit religious gatherings, as Tanzanian president Magufuli claimed in March that "'true salvation' can be found in religious spaces" (Lichtenstein, Ajayi & Egbunike, 2020). In the beginning of June he has declared that the coronavirus "in our country has been removed by the powers of God", and "[w]e prayed for three days and the coronavirus is finished", dangerously heightening the tension between religion and science (Odula, 2020). In the meantime, the Tanzanian government has not been updating their data on Covid-19 cases since May and has not done so at the time of writing (WHO, 2020). Thus, in this framing of the narrative "the pandemic has been framed as a battle between faith and science" (Ogola, 2020, p. 442).

Furthermore, in **Brazil** an evangelical pastor named Valdemiro Santiago sold "magical beans" that were claimed to cure Covid-19, another pastor tried to convince its congregation of the healing powers of consecrated oil which was claimed to be able to make people immune "against any epidemic, virus or disease" (Longoria et al., 2020). Other Latin American religious leaders spread anti-vaccination messages. For instance a **Colombian** pastor couple claimed on its Instagram profile with almost 400,000 followers that in the Covid-19 vaccine contains a chip called ID2020 made created by Microsoft founder Bill Gates (ibid.). The same phenomenon was identified in **Argentina** and **Puerto Rico** (ibid.).

Lacking confidence in institutions

Apart from new fake news messages, and Covid-19 disinformation campaigns with a geopolitical aim, ongoing phenomena are exacerbated by the pandemic. The infodemic plays a role in the worldwide decline in freedom of press and an increase in media freedom violations

(see infra). Moreover, the worldwide trend of a declining trust in government and institutions has been both exacerbating the infodemic, which is exemplified by the case of **Africa**, and exacerbated by the infodemic which is illustrated by the case of **Italy** below.

Besides misinformation spread by the government and religious leaders, another issue that adds fuel to the African fire is the lack of trust the mainstream media faces (Ogola, 2020). African mainstream media both struggles with "institutional deficiencies", and with the fact that it has its independence "fundamentally compromised by its reliance on the state as its single largest advertiser" (Ogola, 2020, p. 442). Mainstream media's reporting is criticized, as news outlets across the continent mainly copy pasts government press statements, which as mentioned above, can be highly unreliable but are also devoid of necessary "contextual details" which are essential to enable the information to resonate with local audiences (Ogola, 2020, p. 442).

Since public mistrust towards both the state and the main stream media is high, misinformation practices are rapidly increasing (ibid.). One of those that makes its appearance in relation to Covid-19 misinformation is the use of 'rumors', which is considered to be part of "well known communication traditions in the continent", and is regarded as "a means through which state narratives are routinely subverted and dismembered, where alternative scripts are written and where silent stories are made legible", and even used by the state itself (Ogola, 2020, p. 441).

Currently, this tradition is being used by Covid-19 misinformation actors as well (ibid.). One example of this is the spread of videos online that show images of bodies from alleged Covid-19 victims "being dumped on the streets and many others buried in the night" (Ogola, 2020, p. 441). One of those videos posted online, actually showed "2014 footage of dead bodies of refugees washed ashore on the Libyan coast" (Ogola, 2020, p. 441). Even though the state's narrative might be undermined by these rumors and videos, they are problematic itself as well, because they also add to "a climate of fear and a powerful sense of helplessness making individuals even more susceptible to disinformation practices" (Ogola, 2020, p. 441).

All of the abovementioned issues contribute to the observation that "the current socio-political climate in Africa has engineered the spread of the COVID-19 related misinformation through propagation of unsubstantiated news" (Ahinkorah et al., 2020, p. 2). As a consequence, local audiences turn to social media when looking for more understandable information encountering a lot of Covid-19 misinformation. One example being several Nigerians overdosing on Chloroquine after reading President Trump's tweet which unsubstantially claimed that the medicine would cure Covid-19 (Ahinkorah et al., 2020; Busari & Adebayo, 2020).

Thus, the Covid-19 'infodemic' is no stranger to Africa and can have far-reaching health-related consequences. Especially in countries, such as Tanzania, where leaders downplay the gravity of the pandemic or where the government is distrusted, as in Nigeria, citizens are prone to Covid-19 related fake news. Nevertheless, on a positive note, fake news stories "have gained less traction where governments have taken up a strong position on the need for containment measures" in countries such as Kenya and **South Africa** (Oxford Analytica, 2020).

The challenges faced by Africa are not unknown to the European continent. For instance, Italy, "the first Western country to be affected by Covid-19", faces similar issues (Lovari, 2020, p. 458). The country encountered a growing amount of anti-science movements the last years, and "suffers from a general lack of trust in public institutions […], with government and media being the least trusted institutions" (Lovari, 2020, p. 459). On top of that, Italians are skeptical about health science in general (ibid.). For example, in 2014 together with Slovenia, Italy reported the lowest amount of respondents (only 31%) which believed "that people's actions and behaviour will have a positive impact on health and medical care" (European Commission, 2014, p. 51).

This skepticism is also rendered visible by the polarization of opinions on the issue of vaccinations, the proliferation of anti-vax movements, populists anti-elitism movements, and the dissemination of science related conspiracy theories, which made the Italian population lose their trust in (health) science even more (Lovari, 2020, p. 459). In an attempt to counter this trend and fight misinformation the Italian Ministry of Health decided to communicate health related issues on social media, however with varying degrees of success (ibid.).

Thus, there was already a perceivable information crisis present in Italy, the coronavirus however, amplified the situation, and turned it into a true infodemic leading to higher levels of uncertainty and distrust among the public (ibid.). This is, among other things, illustrated by the rise of Covid-19 related disinformation content, which "rose from 5% in early January to 46% in late March" (Lovari, 2020, p. 459).

Science journalism as a lacuna in the journalistic field

An insufficient amount of science journalists and quality science journalism is one more thing that manifests itself due to the coronavirus outbreak. As a consequence, coverage on the subject is often told through a political lens, because of this the health crisis side of the pandemic is

neglected (Africa), and the less scientifically accurate information is published (US). Moreover, because of the current health crisis the science journalists' expertise threatens to be lost, while at the same time health experts are overburdened with the expectation to communicate (Germany).

This pandemic illustrates the lack of health journalism in specific and science journalism in general in Africa, and that health coverage is mainly viewed from a political perspective. It is pointed out that "[i]t is no coincidence therefore that mainstream media coverage of the Covid-19 pandemic has focused mainly on the political impact of the crisis than on the understanding of the pandemic as a health crisis in need of scientific interventions too", which is possibly to the detriment of citizens' health (Ogola, 2020, p. 442). In several African countries this has translated into an insufficient engagement of African scientists, while their role of providing more context-suited interpretations of the circulating Covid-19 information is essential (ibid.).

In the United States a deficit of quality health coverage has become increasingly apparent during the health emergency the pandemic caused. Since the past decade there has been an "elimination of dedicated science and health journalists at many media outlets" (Spinner, 2020, p. 4). This is a loss that is felt during this pandemic, because even though there is still quality science reporting present, it is harder to be picked up by readers than the "political oriented coverage", as the latter is more wide spread and drowns out the former (ibid.).

This politized coverage proves to be problematic during a health crisis, as it is said to possibly "be so inaccurate, so unfortunate, and it just exacerbates all the divisions […] and the misunderstandings" that are present in the United States (ibid.). Another factor that negatively affects quality science coverage on the coronavirus is the speed with how the news industry operates. The high publishing pace often does not allow for nuanced scientific stories, leading to the publication of articles with dubious or insufficiently researched content (ibid.).

Also in Europe, researchers perceive a general lack of science journalism. More specifically in **Germany** the "difference between science journalism and the self-communication of science seems to become increasingly blurred in times of coronavirus" (Wormer, 2020, p. 467). This blurring is caused by three phenomena. Firstly, scientists are more and more expected to take on communication tasks with some of them even obtaining a celebrity status (Staudenmaier, 2020). Consequently, the handful of German coronaviruses experts are on the one hand expected to be highly available for questions of the media, and on the other hand supposed to "to press ahead with research at full speed" (Wormer, 2020, p. 468).

Secondly, German science journalists are dissatisfied with the fact that "health authorities and research institutions increasingly tend to channel information through their press offices so strictly that reasonable investigation becomes hardly possible", making it harder for them to do their job properly (ibid.). The last phenomenon observed is that "a convergence of science journalism and self-communication of science" is finding place (ibid.). This in the form of a podcast produced with Germany's leading coronavirus expert broadcasted by a popular radio station, for example (Wormer, 2020). By doing so, the public is exposed to science information which is not filtered by journalists (ibid.).

A possible negative consequence of this trend of blurring the difference between science journalism and the self-communication of science is that it might turn science journalists, who are supposed to be "persistently inquiring watchdogs", into merely "well-behaved cheerleaders" (Wormer, 2020, p. 468). In other words, the corona pandemic emphasizes the predicament that can arise when "science journalists' expertise is lost while scientists are overloaded with communication tasks" (ibid.).

Finally, Germany's example illustrates that in some cases misinformation messages and the actors behind it are not so easy to pinpoint. For example, in terms of what kind of Covid-19 misinformation Germany is facing, researchers concluded that much more than alternative media spreading outright lies, the perceived "information mix […] with a recontextualization into an anti-systemic metanarrative is much more likely to contribute to the feared 'infodemic'" (Wormer, 2020, p. 469). There are no "broad and open disinformation strategies" present in cases like this, nor is there an entirely new reality fabricated suggests a preliminary study on data gathered from January until the end of March (Boberg et al., 2020, p. 17).

On the other hand, German alternative media outlets were found to use information on Covid-19 to boost the narratives they normally propagate, such as an anti-establishment and anti-immigration stance, and climate change conspiracy theories (Boberg et al., 2020). Due to the fact that the information is not openly false but rather recontextualized and given a "populist spin", it is more complicated for the public to detect whether the provided information is trustworthy (Boberg et al., 2020, p. 17). As a consequence, feelings of uncertainty and confusion are likely to be caused by this information mix, something that more science journalism could possibly remedy (ibid.).

Concluding remarks

The abovementioned examples are non-exhaustive and only scratch the disinfodemic's surface. Nevertheless, they illustrate that there is a 'double crisis' finding place on all continents, as mis- and disinformation on Covid-19 spread all around the world, disrespecting any borders. Health threatening false messages that drown out accurate information are circulating with subject matter ranging from fictional homemade cures to drinking bleach in order to get rid of the virus. Related to the virus' origins racist and xenophobic messages, and conspiracy theories about unlikely causes that help spread Covid-19 – such as 5G installations – are widely shared.

When the dissemination of inaccurate coronavirus information is done by influential political leaders, citizens lose out, as the Brazilian and American cases illustrate. The same applies to congregations that are influenced by misinformation disseminated by its religious leaders. In both cases the gravity of the health crisis is downplayed and citizens are not able to grasp the severity of the situation and the health consequences it entails.

We can conclude that the Covid-19 pandemic has functioned as an amplifier of pre-existing tendencies, such as skepticism towards state and institutions including a declining trust in the media. Furthermore, a global lack of quality science journalism, and a blurring of science communication has become more apparent, adding to the general confusion and uncertainty the infodemic brings on. Even though health science misinformation is nothing new, today's phenomenon is perceived as a tipping-point, and information crises are turned into a worldwide infodemic. Consequently, the term 'disinfodemic' seems to do it justice.

Journalism and Covid-19 disinformation

> *[f]ew global events in the last few decades have had such an immediate and significant effect on press and media freedom as the COVID-19 pandemic.* (MFRR, 2020, pp. 26–27)

This section revolves around the questions: 'what is the role of journalists in 'the fight' against fake news and disinformation in times of a 'disinfodemic'?', 'what kind of challenges do news media around the world face that are caused or exacerbated by the current pandemic?', and 'how is the practice of journalism impacted by this worldwide health crisis?'. To be able to answer the first question the concept of journalistic roles in general is discussed, and two specific roles: gatekeeping and watchdog, are elaborated on in light of the 'disinfodemic'. Connected to this, the journalistic concepts of sourcing and verification are addressed, and the activity of fact-checking, a popular fake news mitigation method, is taken a closer look at. Secondly, challenges faced by news media that are caused or exacerbated by the corona crisis will be touched upon. Lastly, the global impact of the corona crisis on the practice of journalism is illustrated with examples from around the globe.

Journalistic roles in the pandemic

"[T]he traditional media has a key role in providing evidence-based information [on the coronavirus] to the general public, which will then hopefully be picked up on social media", claims David Heymann, professor of infectious disease epidemiology at the London School of Hygiene & Tropical Medicine (Zarocostas, 2020). Due to the "tsunami of information" surrounding the coronavirus, this is not an easy task, as not only the general public but also journalists are wading through uncharted waters (ibid.).

Besides providing information of high quality to the public, news media are also expected to play a role in countering disinformation surrounding the virus. This is not a new phenomenon, since in Europe, for example, it was established that respondents were "most likely to say that journalists should act to stop the spread of fake news" in the European Commission's Flash Eurobarometer on fake news and disinformation online (European Commission, 2018, p. 24). However, whether this *is* the task of journalists is contested, since it is questioned by journalists themselves if fact checking and debunking fake news and disinformation is truly a journalistic responsibility (De Giorgi, 2019).

Whether they want it or not, journalists "play a central role in the challenge of false and erroneous content" (Brandtzaeg et al., 2018, p. 1112). Even though they are not the only actors, traditional media has been appointed as one of the key players in curbing the spread of dis- and misinformation. Some suggest that traditional media needs to take "greater responsibility for online fact-checking" (Brandtzaeg et al., 2018, p. 1113), based on the following argument: "If content refuses to go through the editor, the editor must come to the content" (Hofseth as quoted in Brandtzaeg et al., 2018, p. 1113).

First, we take a closer look at the concept of journalistic roles itself. The concept of journalistic roles denotes "the way journalists perceive, articulate, and enact generalized expectations as to how journalism is serving society, both in normative and descriptive terms" (Hanitzsch, 2019, p. 1). Even though journalists are the subject of this definition, journalistic roles are determined through a dialogue between journalists and "interlocutors in the broader society" (ibid.). Consequently, journalistic roles' duty is twofold, since "they act as a source of institutional legitimacy relative to the society writ large and, through a process of socialization, they inform the cognitive tool kit that journalists use to think about their work" (ibid.).

Four categories of journalistic roles can be distinguished on the basis of "two analytically distinct levels", which are "orientations" and "performance" (ibid.). Role orientations "refer to discursive constructions of the institutional values, attitudes, and beliefs with regard to the position of journalism in society and, consequently, the communicative ideals journalists are embracing in their work" (ibid.), which can be divided into two kinds of journalistic roles: normative (see e.g. Christians et al., 2010) and cognitive roles (see e.g. D.H. Weaver & Wilhoit, 1996). The former kind of roles point out "what is generally desirable to think or do in a given context", while the latter kind indicate "the recipes, guidelines, and maps for concrete action" (ibid.).

In turn, role performance includes also two categories of journalistic roles, as "[r]ole performance denotes journalistic roles as enacted in practice (practiced roles) as well as their observation, reflection, and narration by journalists (narrated roles)" (Hanitzsch, 2019, p. 1; see e.g. Mellado, 2015). Since practiced roles refer to the role of the journalist as enacted in practice, it is possible to study it through observation, however in most cases "practiced roles are extracted from news content" (Hanitzsch, 2019, p. 3). Narrated roles can be researched by "extracting them from professional discourse" (Hanitzsch, 2019, p. 4). In this discourse matters such as good journalism and practice can be derived (see e.g. Zelizer, 1993). In sum, these four categories are somehow connected to the others, and correlate with "what journalists *ought to*

do, what they *want to do*, what journalists *actually do* in practice, and what they *say they do*" (Hanitzsch, 2019, p. 1).

Important to note is that there exist a plethora of research on journalistic roles that "resulted in a notable variety of, partly overlapping and often disparate, catalogs of journalistic roles", and that this research was often made with a Western framework in mind (Hanitzsch, 2019, p. 5). For that reason, Hanitzsch and Vos propose a conceptualization of journalistic roles based on two domains, namely "political life and everyday life" (Hanitzsch & Vos, 2018, p. 1). Regarding the first domain 18 possible journalistic roles are distinguished, while the roles carried out by journalists with respect to the domain of everyday life "map onto three areas: consumption, identity, and emotion" (ibid.).

Journalistic roles are valuable in order to find out what is expected of journalists but in order to understand how journalists behave, the concept of role perception comes in. Journalists' role perception refers to the "generalized expectations which journalists believe exist in society and among different stakeholders, which they see as normatively acceptable, and which in fluence their behavior on the job" (Donsbach, 2012, p. 1). Role perceptions can have a great impact on how journalists act, as it "will influence considerably the way they interact with news sources and make decisions about news selection and presentation" (ibid.). How journalists experience their role differs from country to country, since it depends on several aspects, such as "the collective influence of the professional culture of a given country [and] the individual influence of other journalists" (Donsbach, 2012, p. 3).

Research suggest that journalists – despite a changing environment caused by the arrival of the Internet – are not very keen on changing the way they work and their institutional role, since they "continue to behave like journalists in the conventional sense, with conventional ethics and values at least evident in their professional rhetoric" (O'Sullivan & Heinonen, 2008, p. 368). Nevertheless, a more recent study indicates that "the increasing commercialization of the news media worldwide has started yet another, more global process of changing role models" (Donsbach, 2012, p. 5). Even though more research is needed on the topic, it seems that "for many journalists the possibility of advocating specific goals and norms has become less important in the face of an increasing necessity to reach the widest audience" (ibid.).

Nevertheless, researchers identified that "[t]he overall goal remains what it has always been: to provide credible information that citizens in a democracy need to be free and self-governing" in the context of the United States (Hayes et al., 2007, p. 275). Notwithstanding the changing

and challenging media environment, it indicates that traditional journalistic roles and values – at least in a democratic context – are still useful. Though, the change that media and journalism is experiencing today implies that "old assumptions about journalistic roles and values can no longer be accepted uncritically nor old approaches to them continued indefinitely" (ibid.). Thus, because of the journalistic roles and values, such as autonomy and credibility, being in flux, "journalists must figure out how best to adapt their articulation", in order for these values to last (ibid.).

The digital age has sparked discussion on two traditional journalistic roles: the one of journalists being a watchdog over society, and the role of gatekeeping. When journalists embrace the first role they "proactively scrutinize political and business leaders [and] they provide an independent critique of society and its institutions" (Hanitzsch & Vos, 2018, p. 154). Even though there are multiple ways to define gatekeeping it has mainly "been seen as news selection. Gatekeeping has been about making choices and who gets to make those choices" (Vos & Thomas, 2019, p. 402). This role that was deemed essential to the "fulfillment of journalism's normative tasks" had to be reconstructed over the past years due to "the seismic changes confronting [journalism]" (Vos & Thomas, 2019, p. 396).

Gatekeeping, which Deuze describes as the "'we write, you read' dogma of modern journalism" (Deuze, 2003, p. 220), seems to be replaced by "something rather more fluid" (Vos & Thomas, 2019, p. 396). Gatekeeping is deemed by some to have become superfluous due to the arrival of the digital age, since new media "played by a different set of rules" (Vos & Thomas, 2019, p. 404). Furthermore, it was argued that "[c]ost-cutting and the accompanying staff attrition left too little time for much needed oversight" (Vos & Thomas, 2019, p. 405).

However, just like the role of watchdog, the role of gatekeeping knew 'a revival', since "the spread of "fake news" and the inability (or unwillingness) of social media companies to proactively vet and steward the flow of information" revived the "gatekeeping metaphor's normative force" (Hanitzsch & Vos, 2018, p. 410). It was argued that the Internet lacked the presence of adequate gatekeeping, and as a result "conspiracy theories flourished in the digital age and society teetered on a post-truth age" (ibid.). Nevertheless, there are concerns that "there was no turning back the clock" (ibid.). This is another example that journalism and its roles are in a state of flux.

In a study investigating the perspective of Australian and British journalists on "how journalists perceive their roles at a time in which the legitimacy of factual accounts of current events is

increasingly put into question" (Schapals, 2018, p. 976). Journalists emphasize the necessity of taking on the role of a "'watchdog' over society" because of the intensified spread of fake news since 2016 and as a consequence the questioning of the legitimacy of facts (ibid.). However, there are concerns that the declining trust in the media caused by the dissemination of fake news online might jeopardize this. However, Schapals underlines that rather than stating that journalism finds itself in a "crisis" or a "decline" (Schapals, 2018, p. 977), because of the "era of fake news" (Schapals, 2018, p. 976), a more useful perspective is to see news media and journalism in "transition, in a state of flux, as it continues to adapt to a digital environment" (Schapals, 2018, p. 977).

In this study the respondents are asked to rethink their role in relation to fake news and how they could counter its spread. Fact-checking takes a central place in the respondents' answers as they "recognize[d] the significance of even more sophisticated fact-checking techniques in the 'post-factual' era" (Schapals, 2018, p. 980). This ties into the watchdog role as mentioned above. However, the performance of this specific role and the technique of fact-checking is possibly hampered as "this particular role of journalism – to examine false claims and to put them into perspective – is in increasing danger as a result of the proliferation of fake news" (Schapals, 2018, p. 981).

That journalist check whether something is a fact or not, is not very surprising, as deontologically journalists are expected – at least in democracies – to provide trustworthy information and ethical opinions (Encabo, 1995). However, the activity of fact-checking indicates the evaluation of "the veracity of public claims, and it should not be confused with the traditional journalistic duty of checking possible mistakes in a piece before publishing it" (Mena, 2018, p. 658). Following this line of reasoning, the activity of fact-checking differs from but also complements the job of a journalist (Mena, 2018).

The journalistic activity of fact-checking is currently the applied mitigation strategy of several national governments and international organizations. Over the past years fact-checking sites have been increasing, and an international fact-checking movement has been established (Graves & Cherubini, 2016; Tsfati et al., 2020).[8] Remarkably, also social media platforms, such as Facebook and WhatsApp promised to provide donations for fact-checkers and journalists (Posetti & Bontcheva, 2020). This would be highly appropriate, since there is a strong need for fact-checking of information circulating on these social media platforms, as "social media

[8] One example of this is the website named Bellingcat (bell¿ngcat) that specializes inter alia in fact-checking and is run by both professional and citizen journalists.

features, such as speed of diversity of voices, information flow, unverified sources, and opaque interests, and the increasing presence of social media as a source for journalists, make verification of social media content of vital significance to media practitioners" (Mena, 2018, p. 659).

Fact-checking responses have been performed all over the world by "fact-checking organisations in over 70 countries coordinated through the International Fact Checking Network (IFCN), the World Health Organisation, social media platforms, NGOs, governments, and news media" (Posetti & Bontcheva, 2020, p. 8). These fact-checkers from more than 70 countries have joined forces and developed a CoronavirusFacts database[9] which already includes more than 7,000 fact-checks is uploaded daily in more than 40 languages. Their fact-checks vary from checking statements made by politicians to debunking numerous conspiracy theories (IFCN, 2020).

When fact-checking, a journalist transcends his role as a mere observer; fact-checking "goes beyond merely describing the world, as it entails interpretation and elaboration, selection of information sources that represent 'the truth,' against which the new information should be cross-examined, and a true/false verdict" (Tsfati et al., 2020, p. 161). In doing so, the journalist is detached from his/her usual 'objective' perspective from which the journalist describes "competing notions of truths" to the audience (Tsfati et al., 2020, p. 162).

The European Commission, for example, recognizes that fact-checkers "have a crucial role to play", and that in order to fulfill this role they need to be more empowered in the EU member states (European Commission, 2020, p. 8). Various social media platforms, such as Twitter and Facebook, have stepped up their fact-checking efforts because of the pandemic (A. Nguyen & Catalan-Matamoros, 2020, p. 324). Additionally, some of these platforms are collaborating with the WHO and national health authorities to make correct information more easily accessible. An example of such an initiative is Facebook's Covid-19 Information Centre (ibid.), and WHO's mythbusters website.

This "dramatic increase in fact-checking among media organizations" enables citizens around the world to access important and accurate information on the coronavirus (Dunwoody, 2020, p. 473). Another advantage that journalists have over fake news is that "a large contingent of news consumers continues to rely on mediated channels for information, where journalists gather and evaluate information before packaging it for public consumption" (ibid.). This is a

[9] https://www.poynter.org/coronavirusfactsalliance/

relevant observation as it allows specialized journalists to "maintain some control over the Covid-19 narratives" (Dunwoody, 2020, p. 473).

However, although fact-checking and providing correct information is an important and valuable endeavor, various studies prove that curbing an 'infodemic' by merely providing accurate information and facts is insufficient, and can even turn out to be counterproductive (see e.g. Krause et al., 2020).

First of all, fact-checking has proven to be insufficient as it may facilitate polarization when it concerns a politicized topic, since it does not "alter the ritual tendency by political journalists to reframe every science debate as just another power game among competing ideological teams" (Nisbet & Fahy, 2015, p. 226). This is as much the case for information surrounding the coronavirus, since the virus has been subject to rapid politicization (see e.g. Abbas, 2020; Dunwoody, 2020; Lovari, 2020). For instance, a study comparing the discourse in American *The New York Times* and the Chinese *Global Times* demonstrates that these two newspapers "politicized the pandemic to serve the interests and ideologies of the countries they represent" (Abbas, 2020). Both newspapers, for example, emphasized the shortcomings of the other nation's response to Covid-19, and focused on stories that put the other in an unfavorable light (ibid.).

Politicization is not exceptional for a science/health issue; research has shown that usually the information process is in its first stages dominated by scientists, and then gradually political sources take over (Nisbet & Fahy, 2015). This is important to keep in mind when dealing with, and trying to provide information about the coronavirus as evidence based science narratives face competition of "partisan narratives about the risk" made by different ideological groups (Dunwoody, 2020, p. 473).

As already mentioned, a rise in disinformation and polarized narratives are characteristic for the current age and faced by many democracies. This creates a challenge which cannot be tackled with merely providing facts, as even tough fact-checking is capable of increasing one's factual knowledge, several studies indicate that "that this does not necessarily affect citizens' ideological beliefs and political choices" (Picone & Donders, 2020, p. 350). In some cases this means that only fact-checking falls short, as it "goes to deeper issues of repairing political institutions and democratic values" (Bennett & Livingston, 2018, p. 124).

How much polarized narratives and misinformation have an influence differs from country to country, but "[w]hat appears from the outside to be false information may actually engage

deeper emotional truths for members of rising movements that willfully defy reason" (Bennett & Livingston, 2018, p. 135). Thus, due to the narrative's lack of a factual foundation, only fact-checking will not have the desired effect to make people less receptive of it.

Consequently, a simple fact-check may not be enough to convincingly inform certain members of the public. On top of that, it can even backfire, since "a prominent subtext of the disinformation order in many nations is to level charges of 'fake news' or the 'lying press' at journalism that attempts to correct disinformation, or to reassert other norms of democratic decorum" (Bennett & Livingston, 2018, p. 126). In order to inform citizens about highly polarized and complex subjects such as climate change and the current pandemic, "our society requires ongoing, dedicated sources of context-focused journalistic coverage produced by news outlets and professionals who neither cater to nor depend on meeting the expectations of a particular ideological audience or network of philanthropic donors" (Nisbet & Fahy, 2015, p. 227).

Secondly and paradoxically, the "traditional news media, who are supposed to be the bearers of truth and factual accuracy", are helping to disseminate disinformation and fake news by covering it, even though their main goal is to provide correct information (Tsfati et al., 2020, p. 158). One way disinformation is disseminated is by news media repeating specific disinformation with the intention to set the record straight. This repetition is detrimental to preventing disinformation to be spread and believed, because the more the public is exposed to a certain statement, the bigger the chance this statement is considered to be true (see e.g. Lewandowsky et al., 2012). This fact has far-reaching consequences, as research has proven that once an individual has been in touch with misinformation it is difficult to ignore this piece of information. It is for example challenging "to return the beliefs of people who have been exposed to misinformation to a baseline similar to those of people who were never exposed to it" (Lewandowsky et al., 2012, p. 114).

Moreover, journalistic processing of information into news is challenged "by digital media as well as by other information providers" (Himma-Kadakas, 2017, p. 27). One major challenge is the time it takes to filter the enormous amount of information online (Himma-Kadakas, 2017; Himma-Kadakas & Palmiste, 2019). Especially online journalism might face the problem of a lack of time to adequately filter online sources, as "content has to be created fast and cheap [which] leads to the usage of material that is easily accessible and corresponds to news values such as conflict and prominence" (Himma-Kadakas, 2017, p. 37). This entails that reporters on their own cannot manage the task of curbing online disinformation, since they cannot compete

with sheer amount of online (dis)information. In other words, the "fast-paced publishing environment and shortfall in journalistic resources for fact-checking are potentially problematic as the volume of online information and disinformation increases" (Brandtzaeg et al., 2018, p. 1113).

Additionally, people who frequent fake news-website are unlikely to be reached by fact-checked disinformation (Guess et al., 2019). On the one hand, research indicates that only a limited segment of the populace is exposed to and consumes fake news online (Fletcher et al., 2018; Grinberg et al., 2019; Guess et al., 2019). On the other hand, "[f]ew institutions have the reach and scope of journalism, and specific news companies both in the offline and online worlds" (Waisbord, 2018, p. 1873). As a consequence, most people are aware of fake news stories because of the mainstream news media that try to remedy the problem of fake news dissemination (Tsfati et al., 2020, p. 158). Thus, the mainstream press could play a prominent role in disseminating disinformation, and may have an "amplifier effect" for fake news stories (Bennett & Livingston, 2018, p. 124).

Important to note is that some of these issues can be nuanced. It is argued that the existing literature on whether fact-checking help spread misinformation is "far from definitive" and, consequently, that debunking is not a pointless endeavor (Caulfield, 2020, p. 7). There exists research that demonstrates that providing correct information can achieve an attitude change with respect to misconceptions (see e.g. Bode & Vraga, 2015; Nyhan, 2020), and that suggests that provided scientific facts "fills in the gap in understanding caused by the debunk" (Caulfield, 2020, p. 8). Furthermore, leaving circulating conspiracy theories and other misinformation messages unanswered, is proven to be unfavorable, as a study suggests that this "has a negative effect on attitudes towards behaviours favoured by science" (Schmid & Betsch, 2019, p. 931).

Thus, even though certain aspect of fact-checking are said to be unproductive, debunking misinformation cannot be regarded as something futile. Moreover, disregarding the question how effective fact-checking is, it is clear that also other measures need to be taken in the fight against misinformation. More efforts of social media platforms is needed to curb the spread of falsehoods and general regulations need to be introduced. Last but not least, people need to be handed the necessary tools to arm themselves against misinformation: such as the teaching of media literacy and critical thinking (Caulfield, 2020). This way, finding a response to the coming infodemic(s) will become more effective.

At the time of writing journalistic roles taken on during the Covid-19 pandemic is still under-researched. However, the importance of access to reliable news media has been illustrated by the surge in news media consumption in response to the pandemic (e.g. Newman et al., 2020; Wormer, 2020). Further, it has been noted that regarding the ongoing pandemic "the journalist as a verified information provider and opinion-maker has fully proven his role in society and the media is increasingly proving its effectiveness as a protector of democracy" (Stanescu, 2020, p. 112). Furthermore, the importance of the presence of science journalists in a media landscape has become apparent, as "[a] science journalist not only informs the public about the latest scientific developments and findings, but is also a watchdog to critically identify scientific controversies" (Catalan-Matamoros & Elías, 2020, p. 3).

Sourcing and verification

Looking into the role of sourcing and verification in the journalistic news production process is of utmost importance in order to understand news reporting, as ''[n]ews mediates the wider socio-political environment to its audience, but in turn its content has been mediated by its reliance on how other institutions make information available" (Tiffen, 1989, p. 32). According to this view, news can be understood as being, to some extent, quite vulnerable and dependent on its socio-cultural and socio-political environment (Tiffen, 1989). Tiffen et al. describe news as "a parasitic institution; its product is the deeds and words of others, and its quality depends at least partly on the quality of the information environment in which it is operating" (Tiffen et al., 2014, p. 374).

Since "[n]ews sources define the reality of news coverage and give structure to the news production process", they are "the single most defining aspect of news reporting" (Lecheler & Kruikemeier, 2016, p. 158). Furthermore, the process of verification is a vital part "of the news-gathering and information dissemination process" (Brandtzaeg et al., 2018, p. 325). The process of verification consists of verifying two significant elements: "the source of a piece of content and the content itself" (ibid.). Verification can be complicated, because it is not always possible to easily distinguish fact from fiction, which frequently depend on interpretation (Brennen, 2009).

Just like the journalistic roles, media sourcing and verification patterns during the current corona crisis are still under-researched. A recent study by Catalan-Matamoros and Elías (2020)

on media sourcing patterns of Spanish journalists covering Covid-19 vaccines sheds light on the use of sources and the role of journalists in the pandemic, and "scientific controversies" in general (Catalan-Matamoros & Elías, 2020, p. 1). They state that in the case of scientific issues "the media are crucial in keeping the public informed about scientific issues" (ibid.). The information they share can be highly impactful, as it has the potential to "shape lay publics' awareness and perceptions" of scientific topics (Cacciatore et al., 2012, p. 1055). Sourcing is thus a crucial task, as it plays a central role in story construction "which provides journalists with story content and context" (Catalan-Matamoros & Elías, 2020, p. 1). This task has become even more important in the light of the coronavirus 'disinfodemic', as "careful news production is required by journalists in order to avoid or minimise the spread of fake news to the public" (ibid.).

In order gain a deeper understanding of news content and production, news sources need to be examined. In relation to this, it has been noted that by selecting and using specific sources "media do not only have the ability to tell us what issues to think about, but also how to think about those issues" (Stroobant et al., 2018, p. 344). Despite its importance, research on sourcing in general, and in crisis situation in specific has been fairly limited (Van Der Meer et al., 2017), and mainly undertaken in the American media context (Tiffen et al., 2014).

Catalan-Matamoros and Elías point out different "functions of journalistic sources" that have been previously identified, such as: "(1) presenting how to verify the news sources; (2) increasing reliability; (3) avoiding ambiguity; (4) showing various points of view; and, finally, (5) protecting against accusations of bias" (Catalan-Matamoros & Elías, 2020, p. 2). The plurality of sources and source selection mechanisms dependent on the news issue and the situation (Van Der Meer et al., 2017). Interestingly, research suggest that in times of crises "news is mainly constructed from information provided by sources" (Van Der Meer et al., 2017, p. 1109), which makes sourcing even more important, and makes it "crucial to explore how news coverage is constructed during a crisis and if the audience can make informed decisions using news media" (ibid.).

The selection of sources is dependent on several determinants (Catalan-Matamoros & Elías, 2020). To a certain degree the same selection criteria are applied during a crisis as "under routine circumstances" (Van Der Meer et al., 2017, p. 1120). Some of these determinants are: "trust in main source characteristics", "the sources' communicative activities", "the conversation between the expert and the journalist" (Catalan-Matamoros & Elías, 2020, p. 2). Furthermore, other factors that might influence source selection is "the journalistic concept of

balance", and the specific agenda the media wants to set, as is explained by "agenda-setting theory" (Catalan-Matamoros & Elías, 2020, p. 3).

Sources that are specifically used in science journalism differ, but the most trusted one by journalists are scientists (ibid.). Moreover, prior research has established that in the case of science journalism "there is a tendency to prioritise sources from governmental institutions and companies, and that people are given low priority by journalists in the process of story building" (Catalan-Matamoros & Elías, 2020, p. 11). The use of specific sources also depends on the fact if journalists are under time pressure. This is, according to some, the case with journalists reporting on the corona crisis as "[c]ritics noted tendencies to horse-race reporting and uncritical coverage, with journalism being too close to official statements and too affirmative of political decisions" (Quandt et al., 2020, p. 1). Additionally, such fast-paced news production can have a detrimental effect on the process of verification, especially when journalist rely on social media sources (Bae et al., 2015)

Fast-paced news production might also lead to so-called "churnalism", which is described as "the recycling process of news production which drew increasingly on wire service copy and public relations (PR) subsidies" (Johnston & Forde, 2017, p. 943). In this case, only a limited amount of sources are included in news articles, and "journalists might perform only as passive senders of leading sources' perspectives" (Catalan-Matamoros & Elías, 2020, p. 11). Consequently, the balance and verification of an article is negatively affected (ibid.). This is particularly a problem when reporters are covering during a crisis, as research has proven that in this situation journalists have the tendency to fall back on familiar, and so-called "routine sources" (Van Der Meer et al., 2017, p. 1119). As a result, crisis situations have a disrupting effect on balanced and pluralistic reporting (ibid.).

Thus, the discussion above makes clear that a high-quality process of news production depends on balanced and pluralistic sources that are reliable, and have been verified sufficiently. Catalan-Matamoros and Elías recommend journalists to "not only filter information to stop the spread of fake news, but also that they use a variety of sources beyond governmental ones, such as consumer groups or patients' associations, clinicians, scientific journals and scientists" (Catalan-Matamoros & Elías, 2020, p. 12). Furthermore, they state that "the era of misinformation and fake news, journalists should be empowered to ensure the best use of sources on topics relevant for society such as [Covid-19] vaccines" (Catalan-Matamoros & Elías, 2020, p. 12). This way, the chance that citizens are better informed about health issues in general, and about the current pandemic in specific, grows.

Covid-19 induced challenges

"Although the corona crisis is the biggest journalistic story in times, that same crisis is also directly crippling media companies" (De Coninck et al., 2020, p. 65). The pandemic has led to a paradoxical situation that is highly challenging for news outlets. On the one hand, the pandemic has led to a worldwide increase in the use of traditional news media (see e.g. Newman et al., 2020; Wormer, 2020). On the other hand, despite more news consumers, and the growing need of quality and trustworthy information, which the traditional news media is able to provide, the pandemic has led to a significant decline in advertisement revenue and severe financial losses.

News media around the world are dealing with severe budget cuts, and have been facing cuts in science reporting staff over the past decade (Nisbet & Fahy, 2015). Thus, the pandemic and the surrounding infodemic have created the paradoxical situation of an increased global demand for quality news while simultaneously these highly demanded news media are teetering on the verge of ruin (see e.g. Wormer, 2020).

The Reuters Institute states that "the short-term and long-term economic impact of the [coronavirus] crisis is likely to be profound – advertising budgets are slashed and a recession looms, threatening news media, some of whom are struggling with adapting to a changing world" (Newman et al., 2020, p. 4). For example, in the case of Germany, "publishers are reporting advertising declines of 80%, and many have announced short-time working" (Wormer, 2020, p. 469).[10] This is problematic, since the role of both "the bridge and translator between scientists and the general public" is ascribed to news media (Leng et al., 2020, p. 12). Thus, ironically, when reliable – and possibly life-saving – information is required the most, quality journalism is facing serious challenges.

On top of that, a weakened media landscape during a time of crisis, when people are in need of accurate and reliable information which quick dissemination is pivotal for public health, could "lead to increased reporting of 'alternative' or dubious content, which may result in the dissemination of potentially 'dangerous' views that jeopardize public health" (De Coninck et al., 2020, p. 65). Therefore, policy makers are urged to financially support "local information provision", which was for example done in The Netherlands where a subsidy of €11 million was granted for this purpose (ibid.).

[10] See Meier & Wyss for a more complete overview of the challenges faced by journalists in Germany (Meier & Wyss, 2020).

Furthermore, there were the mental consequences that the worldwide epidemic caused. In the abovementioned survey for journalists, 70% of the respondents "rated the psychological and emotional impacts of dealing with the COVID-19 crisis as the most difficult aspect of their work" (Posetti et al., 2020, p. 2). After this, the financial insecurity and the enormous workload were named respectively the second and third biggest challenge, while working in the pandemic (Posetti et al., 2020). Interestingly, a positive evolutions was that "61% said they felt more committed to journalism than they were before the pandemic" (ibid.:3). Generally the report concluded that journalists are currently working under extreme pressure in "an information ecosystem that is too tolerant of dis/misinformation and unreliable sources", while facing mental, financial and physical challenges (ibid.:27).

Worldwide impact on the practice of journalism

The Media Freedom Rapid Response (MFFR) project which reports on violations of press and media freedom in EU Member States and Candidate Countries, state in its latest monitoring report that "[f]ew global events in the last few decades have had such an immediate and significant effect on press and media freedom as the COVID-19 pandemic" (MFRR, 2020, pp. 26–27).

The arrival of the SARS-CoV-2 virus and the illness it causes has wreaked havoc around the world. At the time of writing almost 38 million people's health has been affected by the coronavirus worldwide (JHU, 2020). In addition, the pandemic has serious social and psychological repercussions, and has a negative impact on the world economy. Different segments of society are influenced by the corona crisis, including journalists and the freedom of the press.

The International Press Institute (IPI), which defends worldwide press freedom, has been monitoring media freedom violations since the start of the pandemic. The Institute's findings are worrisome. So far 418 media freedom violations are registered ranging from restrictions on access to information to verbal or physical attacks on journalists (IPI, 2020a).[11] An increasing abuse of laws by national authorities to intimidate or silence journalists has been observed. In **India**, for instance, laws are misused in order to harass journalists and to curtail the freedom of the press (IPI, 2020e). **Russia** is one of the countries that criminalized the spread of

[11] On 13 October 2020

misinformation on the coronavirus. These 'fake news laws' are usually vaguely defined and are used as a tool to control information and silence critical media in authoritarian countries (IPI, 2020d).

In other states already existing media problems are highlighted or exacerbated. Even though journalists in **Greece** do not face government interventions that are openly authoritarian as in some Eastern European countries, the pandemic has brought several issues to the surface. During the corona crisis Greek authorities distributed funds to media outlets "for them to carry 'Stay at Home' public health messages" (IPI contributer: The Manifold, 2020). Strikingly, media outlets that were overtly pro-government received most of the funding, while media critical of the authorities were allocated less than one percent of the budget (ibid.). This incident is only one of the many problems the Greek media landscape faces. With its declining quality of news, ownership problems, many dismissed journalists and cuts in costs the media landscape has been characterized as "deeply problematic", and its challenges highlighted by the pandemic (ibid.).

Cuba and **Hungary** are states where the corona crisis exacerbated the already dire media situation. Cuban journalists lack access to information, and while this is not a new issue, the arrival of the global epidemic has made matters worse. Especially independent Cuban journalists are getting the worst of it, as they – in contrast to journalists working for state media – "are not permitted to access publicly held press conferences nor to impart any information other than that released by the public authorities" (IPI contributer Monika Martinovic, 2020). This is a severe obstacle that makes the obtainment of everyday information impossible for journalists. On top of that, some independent journalists are forbidden to leave their homes (ibid.).

In **Hungary**, Orbán's government has used the pandemic as a tool to strengthen its hold on independent media. The country is considered to be "[a]mong the most serious threats to press freedom" (IPI Advocacy Officer Jamie Wiseman, 2020a). During the pandemic the complete editorial team of Hungary's biggest news[12] website was forced to quit, and a left leaning radio station's[13] frequency license was taken away by Orbán (IPI Correspondent Marton Bede, 2020). Furthermore, the information provided on a daily press briefing during the Spring wave of the pandemic, which was "the only official channel of communication for all matters related to the

[12] Index.hu
[13] Klubrádió

pandemic", was entirely untransparent, and questions by independent media outlets were left unanswered (IPI Correspondent Marton Bede, 2020).

On top of that, there was a new law introduced that criminalizes the dissemination of "'false' or 'distorted' information which undermines the authorities' fight against COVID-19" (MFRR, 2020, p. 28). This law, which can led to five years in prison for the accused, makes it possible for the state "to grab more powers and tighten control over information" (MFRR, 2020, p. 28). Though less far-reaching as in Hungary, emergency decrees passed in **Bulgaria** and **Romania** also influenced to countries' freedom of expression (ibid.).

Also in **Azerbaijan** the coronavirus pandemic has been used as an instrument to silence critical independent media. In this case, quarantine laws are being abused by the Azerbaijani government. Journalists are jailed under the pretext of violating quarantine rules when they report "on the implications of the government's lockdown measures" (IPI Advocacy Officer Jamie Wiseman, 2020b). A crackdown on critical voices has been identified since the beginning the quarantine in March and critical media are " under extreme pressure from authorities" (ibid.).

Moreover, the context of this health crisis is used by some governments as an excuse to censor news and information (IPI, 2020b). Media freedom is curtailed under the guise "of combating the spread of 'fake news'" (ibid.). In countries such as **Thailand**, **the Philippines**, **Cambodia** and **Hungary** so-called fake news laws are signed that allow the authorities to censor media, control the public narrative on the pandemic, silencing criticism and in the case of the Philippines jail sentences up to two months or fines of approximately 18,000 euros (ibid.). In **Honduras** freedom of expression has been suspended by the use of emergency measures (ibid.). There are concerns given the fact that measures taken now seem not to be of a temporary character.

Concluding remarks

In sum, the Covid-19 pandemic had a significant impact on journalists all over the planet. An accelerated decline in press freedom has been set in motion (IPI, 2020c). Reporters are facing mental and physical challenges. Furthermore, there is financial hardship on a personal level and for the media landscape in general because of the paradoxical situation the pandemic creates. The health crisis also raises questions on how the media best can respond to misinformation. There is a global trend of the health crisis exacerbating "crises in countries with already poor records on press", and using legal tools which aim to harass journalists (IPI, 2020e; IPI Advocacy Officer Jamie Wiseman, 2020b).

On top of that, "concerns over online misinformation have presented governments both autocratic and democratic new opportunities to ramp up censorship and strengthen surveillance capabilities, further shrinking digital freedoms" (IPI, 2020c). It is recognized that constraining some fundamental rights might be a necessity in order to fight the corona crisis, however "those limiting media freedom appear opportunistic and excessive" (IPI Advocacy Officer Jamie Wiseman, 2020a). Worldwide press freedom suffers under the pandemic and some states seem more preoccupied with fighting journalists than the Covid-19 pandemic.

The role of journalism in the pandemic is, as professor Heymann stated, to provide the public with evidence-based information. Though this role might seem obvious, it is a very challenging task due to the "tsunami of information" on Covid-19 (Zarocostas, 2020). The traditional roles of journalists being watchdogs of society and gatekeepers have recently known a revival in the context of the increasing amount of fake news. Yet, not everyone agrees on the assumption that combatting fake news is a task of the media. Moreover, journalism and its roles and values are said to be in a state of flux. During the current disinfodemic these roles, just as balanced journalistic sourcing and thorough verification, have become essential to criticize, for example, Covid-19 measures that are too vague and extensive (watchdog), and to filter life-saving information out of the whirlpool of disinformation (gatekeeper).

There are democracies where an extensive body of literature exist on the presence of disinformation and how it affects the traditional media. The United States with its highly polarized media landscape has been subject to hundreds of studies of this kind, for instance. Furthermore, in the context of the coronavirus pandemic, already several studies have been undertaken that aim to map the impact of the pandemic on the news media and the phenomenon of disinformation (e.g. Alimardnai & Elswah, 2020; Alvarez-Risco et al., 2020; Catalan-

Matamoros & Elías, 2020; H. Nguyen & Nguyen, 2020; Ogola, 2020; Wormer, 2020). Moreover, as the global examples mentioned above illustrate many of these countries are characterized by a highly polarized or undemocratic media landscapes where problems with (state induced) mis- and disinformation are not surprising phenomena given its context.

Small democratic countries with a minority language, however, are often left out in grand scale studies on this subject. Belgium is one of those countries. The country is labelled as being very resilient to online disinformation (Humprecht et al., 2020), however it is also stated that the subject is highly under researched (e.g. Alaphilippe et al., 2018; Coche, 2018a). Furthermore, one survey conducted in April among Flemish journalists indicated that due to the corona crisis, a tipping point has been reached in the Flemish journalism sector. Moreover, 60% of this survey's respondents indicated that a significant amount of fake news is circulating about the corona crisis (Van Leuven et al., 2020). This is highly problematic as during times of crisis correct information is crucial. Therefore, this thesis picked the situation in Flanders as a subject in order to address this caveat in disinformation research in the Belgian context, and to add to the literature on the Covid-19 disinfodemic.

Case-study: Covid-19 related disinformation in Flanders

Do we have a good media system? Yes, we do. We're also less vulnerable to things like fake news than other media systems. In Flanders it's not difficult to distinguish between real news sites and fake ones, but this does not apply to every reader. If even now, during a crisis, we don't wake up, we're going to wake up way too late. (said by a Flemish journalist interviewed on 14 October 2020)

Research question and justification

Given the Covid-19 pandemic and the 'disinfodemic's' enormous impact on global journalism and the amount of circulating health related disinformation as illustrated above, this thesis investigates *how the media landscape in a country with both a high level of press freedom and resilience to online disinformation has been affected by this Covid-19 'disinfodemic'*. In order to answer this question, we will investigate the presence of Covid-19 related disinformation in Flanders, Belgium. This will be done on the basis of the insights of the people who are named by Belgians to be the most responsible to identify and stop the spread of fake news, namely journalists. In addition, another valid Flemish media actor, the news ombudsman, has been interviewed to gain a better understanding of these insights and to find an answer on the research question.

In other words, this study provides insight into how Flemish media actors have experienced the Covid-19 'disinfodemic' during the pandemic's first six months. Previous studies have suggested that Belgium is considered to be highly resilient to online disinformation and that the impact of disinformation is fairly limited (e.g. Alaphilippe et al., 2018; Humprecht et al., 2020). On the other hand, Belgians have been found to score lower than average in terms of media literacy (e.g. Coche, 2018a; Newman et al., 2018), which implies it is hard for them to identify disinformation. Consequently, journalists are expected to identify and stop the spread of fake news stories, as the media is considered by Belgians to be the main actor that should stop the spread of fake news (European Commission, 2018). Moreover, the Flemish region of Belgium has been subject to political polarization over the past years and the presence and impact of disinformation in the region has been highly under researched so far (Bechmann & O'Loughlin, 2020).

One of the reasons why Belgium is an important case that deserved to be studied is that in 2018 Belgians were found to be "least likely to say false news is a problem in their country" compared

to citizens from any other European member state (Bechmann & O'Loughlin, 2020, p. 5; see also European Commission, 2018). Secondly, in the same Flash Eurobarometer it was found that news media and in specific printed (shared fourth place with Finland) and online newspapers and news magazines (third place) enjoyed the highest levels of trust among the other member states (European Commission, 2018). However, at the same time, Belgian citizens express "very low confidence in their own ability to identify false news", and are one of the European member states which are least likely to say that "citizens themselves should act to stop the spread of *fake news*" (European Commission, 2018, p. 25). According to Belgians, journalists are most responsible to stop the spread of fake news (European Commission, 2018).

More specifically, we take the Flemish region of Belgium as a case-study. One of the reasons is that it has been noted that in this region political polarization has been increasing the past years, which was confirmed when in "May 2019 federal elections saw a far-right party [Vlaams Belang] surge from relative obscurity to take second place at the polls after spending significant sums on campaigning" (Bechmann & O'Loughlin, 2020, p. 6). As a consequence, researchers posed the question: "Is this small corner of European prosperity, stability and security succumbing to wider forces across all democracies, and what can we learn from this experience?" (ibid.). The particular political situation of Belgium during the biggest part of the pandemic so far, also raised concerns regarding its democracy and constitutionality, as a transitional minority government led by Prime Minister Sophie Wilmès governed from the beginning of the pandemic until 1 October, when finally a federal government was formed.[14]

Another reason, why this thesis has the Belgian region of Flanders as a subject is because the presence of disinformation there is highly under researched (e.g. Alaphilippe et al., 2018; Coche, 2018a). This way this thesis hopes to contribute and make the research gap concerning Flanders and disinformation slightly smaller and raise awareness on the issue. Lastly, Flanders is said to "stand strong for multilateralism, human rights, and a politics of compromise in the international sphere" (Bechmann & O'Loughlin, 2020, p. 8). For that reason, the region and the whole of Belgium "project a narrative that anti-liberal and anti-democratic forces are trying to undermine" (ibid.). Consequently, gaining a better understanding of how fake news becomes present in this region might serve to be useful to open "up our understanding of the mechanisms through which that geopolitical struggle is being waged" (ibid.).

[14] For example, concerns were raised regarding the way this government dealt with the citizens' constitutionally guaranteed freedoms in connection to the adopted emergency measures created to curb the Covid-19 pandemic (De Groote & Verelst, 2020).

First some background information on the Flemish media landscape and on the phenomenon of disinformation in Belgium as a whole and in the region in specific is given in order to gain a better understanding of the context in which the research is made. Then, the already apparent effects of the pan- and disinfodemic on Flemish reporters are discussed and additionally some examples of Covid-19 related disinformation are given. Lastly, the interview method and results are discussed, followed by a general discussion.

Context

The Flemish journalist

A survey made in 2008 states that the "average Flemish journalist is a white, 42-year-old, highly educated male" (Raeymaeckers et al., 2012, p. 144). In terms of ideology and politics, "journalists call themselves progressive and situate themselves predominantly on the left of the political spectrum", which corresponds with their international counterparts (Raeymaeckers et al., 2012, p. 152). One decade later, women are still found to be underrepresented in the overall Belgian media, "both as 'news subjects' and as 'reporters or presenters', in both online and traditional media" (Valcke et al., 2018, p. 11). In total 31,6% of professional journalists in Flanders are women, while 68,4% are men (Van Leuven et al., 2020, p. 6). Even though this seems to be an enormous difference, the gender distribution is evenly balanced with beginning journalists that are younger than 35 years (Van Leuven et al., 2020, p. 30).

It has been noted that influenced by the arrival of the Internet, there exists a "trend toward a more 'sedentary journalism'", which results in Flemish journalists spending more time at their desks (Raeymaeckers et al., 2012, p. 147). This results, together with the increasing pressure to work in a cost-efficient way, in the use of sources that are easily accessible, examples of such sources are "press releases and material from public relations agencies" (Raeymaeckers et al., 2012, p. 148). In recent years, journalists' workload has increased, and a more flexible attitude of Flemish journalists is expected, which is in line with global trends. Nevertheless, research proves that the overall job satisfaction is relatively high. Mainly the "diversity of content in the media, the high number of social contacts, and the creative aspects of journalism" are appreciated by journalists in Flanders (Raeymaeckers et al., 2012, p. 149). This despite the fact that recent research proves that there are some problems in the sector concerning job security.

For example, in 2017 only an average of 12% of journalism students had the chance to find a job in the field in their first year after graduating (Valcke et al., 2018).

The Flemish media landscape

The Belgian media landscape is a fragmented one. The country is divided in three linguistic communities: the Flemish (Dutch), French and German-speaking Community. These communities have their own authority in terms of regulating their respective radio and television broadcasting markets, which entails that "each Community has its own (audiovisual) media law and a separate media regulator" (Valcke et al., 2018, p. 2). This fragmentation resulted in two economically separate media markets, since the Flemish and French-speaking Communities are the two largest communities. Media companies concentrate either on mainly Flemish speaking Flanders in the north of Belgium, or predominantly French speaking Wallonia in the south of the country. Though, the population does have access "to all media outlets provided in both languages irrespective of location" (ibid.).

Belgian media in general have traditionally enjoyed high levels of trust (Newman et al., 2019). The public broadcasting channel, VRT takes center stage in the Flemish media landscape, and VRT News is considered to be the most reliable news source (ibid.). VTM News, the news of the Flemish commercial broadcaster VTM, is with a brand trust score of 7.12 – compared to VRT News's score of 7.32 – highly trusted as well (Newman et al., 2019). Remarkably, in 2019 there was a drop in the high level of trust Belgian news brands traditionally enjoy, since the trust in the overall news decreased from 53% to 49% (ibid.). In their *Digital News Report 2019* Reuters Institute for the Study of Journalism points out that "[t]here are recurring instances of both politicians and citizens adopting a harsher tone towards journalists. It is telling that the Flemish Association of Journalists has installed a complaints office for journalists who are victim of verbal and physical harassment" (Newman et al., 2019, p. 72).

Interestingly, specifically in Flanders trust in news in general knows a great decline; the overall trust dropped 7% in 2019 compared to the year before (ibid.). Generally speaking, however, the Flemish news media is trusted more than their French-speaking counterparts. The trust in the news overall amounts to 55% in Flanders, and the trust in the news media respondents use themselves sums up to be 59% (ibid.). This small discrepancy points to a news landscape that

knows little polarization in terms of trust, according to Mediawijs, the Flemish Knowledge Centre for Digital and Media Literacy (Picone, 2017).

Moreover, these amounts are higher than the average level of trust of the *Digital News Report 2019*'s participating countries, since "[a]cross all countries, the average level of trust in the news in general is down 2 percentage points to 42% and less than half (49%) agree that they trust the news media they themselves use" (Newman et al., 2019, p. 9). Bearing this in mind, the trust score in Flanders seems not immediately problematic, even though there has been a decline.

Media ownership concentration is high due to the relatively small size of these regional markets, there are only four "(cross)-media companies supplying a significant portion of the audience with news: DPGMedia, Mediahuis, Roularta, and VRT", for example (Picone & Donders, 2020, p. 349). In the Flemish market the public broadcaster, VRT, takes up the role as Public Service Media (PSM), which means its main role is to inform the public (Picone & Donders, 2020). In terms of news on television, there are only two main news bulletins in Flanders. These are the news bulletins broadcasted on the TV-channel één (VRT) and on VTM (DPGMedia) and "are comparable in terms of length, frequency, and format" (Picone & Donders, 2020, p. 353).

Even though the Flemish and French speaking Community both score high on media ownership concentration, these results can be mitigated. First of all, Belgium has a "well developed regulation on ownership transparency", and "strong and effective rules on transparency and merger control" (Valcke et al., 2018, p. 7). Second of all, it is important to bear in mind that because of the linguistic overlap, the media of neighboring countries such as France, Germany and the Netherlands, also play an important role within the Belgian media landscape. For instance, the majority of the German speaking Community's population mostly watches audiovisual content made in Germany (Valcke et al., 2018).

Belgium scores relatively well in terms of freedom of the press. In 2019 the country ranked 9th place out of 180 countries on the Reporters Without Borders's (RSF) World Press Freedom Index (Reporters Without Borders (RSF), 2019). At the time of writing Belgium dropped to the 12th position in 2020 (Reporters Without Borders (RSF), 2020). In case of the Flemish Community this drop is linked to budget cuts at the public Flemish Radio and Television broadcasting company (VRT) (ibid.); since 2007 government funding has been reduced (Picone & Donders, 2020). Furthermore, Belgium scores well in terms of media pluralism, even though the country does face some challenges (Valcke et al., 2018). In 2017, the country scored

remarkably well on the protection of its press and media, and values fundamental rights highly. In addition, Belgium received a positive score on the indicator on political independence of its media (ibid.).

Several guarantees exist which preserve the independence of the Belgian press. These guarantees, however, have been pointed out to be "paper guarantees" by experts, meaning that these are not always applied in practice (Valcke et al., 2018, p. 3). Belgian media scores – compared to other factors –quite low on social inclusiveness. One of the reasons lies at the core of the media landscape, since its fragmentation does not allow the communities to define "clear categories of minorities due to politically sensitive language legislation" (Valcke et al., 2018, p. 10). This policy fragmentation results in the fact that the access to media for minority groups is mainly "based on rather abstract, generic anti-discrimination regulation" (ibid.). Data about minorities and media is still limited, yet experts have suggested that "the economic difficulties of the past decade have caused any offer to minorities to be greatly reduced, leaving much room for improvement" (ibid.).

Belgians' biggest news source is found online; in 2020 77% of Belgians accessed their news online (Newman et al., 2020, p. 63). The most visited Flemish news websites are VRT NWS and online version of the newspapers *Het Laatste Nieuws*, *Het Nieuwsblad*, *De Standaard* and *De Morgen* (Newman et al., 2020, p. 63). The public broadcaster VRT is generally the most used news source in Flanders, as "[a]ll VRT channels and brands combined are regularly used by 60% of Flemish news users" (Picone & Donders, 2020, p. 352).

Interestingly, online this is not the case, less than a quarter (23%) of Flemish news users access VRT NWS on a regular basis (Picone & Donders, 2020). The online version of commercial newspaper *Het Laatste Nieuws* is with 39% news consumers more frequently accessed and VRT NWS is only one percent more regularly used than *Het Nieuwsblad* (22%) (Picone & Donders, 2020). It is worth noting that *Het Laatste Nieuws* does not owe its popularity because it offers accurate and reliable news, but because consumers find it the best news site for amusement and entertainment purposes (Newman et al., 2017). Although not being the most widely used news website, VRT NWS has proven to be the most trusted of the news brands mentioned above (Picone & Donders, 2020). Additionally, this is illustrated by "the high market share of VRT NWS during the Coronavirus crisis" (Picone & Donders, 2020, p. 354).

Disinformation and Covid-19 in Belgium

Belgian media and disinformation

In 2018 Belgium was reported to be the country where its citizens are the least worried about fake news than in any other European member state (European Commission, 2018). On top of that, only 28% of the Belgian respondents agreed that "the existence of news or information that misrepresent reality or is even false" is definitely a problem (European Commission, 2018, p. T12). This number is in stark contrast with the average of the European population as 44% indicated fake news to be definitely a problem.

This raises the question if the unconcerned attitude of some Belgians is justified. This section takes a closer look to Belgium's resilience to online disinformation, and to the different ways fake news and disinformation have surfaced in the past. Furthermore, it looks into what so far the response to the issue has been.

Belgium's resilience to online disinformation

A study that tries to map the conditions that influence modern democracies' resilience to online disinformation provides a cluster analysis that makes it possible to compare the resilience of 18 Western democracies (Humprecht et al., 2020). In this study, Belgium is part of the "media-supportive, more consensual" cluster of Northern and Western European countries and Canada (Humprecht et al., 2020, p. 505). The members of this group are the following countries: Austria, Belgium, Canada, Denmark, Finland, Germany, Ireland, the Netherlands, Norway, Sweden, Switzerland, and the United Kingdom (ibid). The majority of these countries have "democratic-corporate media systems", except for Canada, Ireland and the UK, which media systems are characterized by more liberal features (ibid.). Nevertheless, the three latter countries share strong similarities with the European democratic-corporate media systems, since "welfare expenditure, support for public broadcasting, and regulations of media ownership, advertising and electoral coverage" are quite similar in all the aforementioned countries (ibid.). In these countries the media enjoys the most support, as a consequence, they are characterized by "a high level of resilience" to online disinformation (ibid.).

The second kind of cluster is the one consisting of the Southern European countries (Greece, Italy, Portugal, and Spain). This cluster is "distinguished by comparatively high levels of

societal popularization, populist communication, and social media use for news consumption" (ibid.). Furthermore, these countries generally "have lower levels of trust in media and shared media use" (Humprecht et al., 2020, p. 505). This cluster is labelled as "polarized" since having a polarized media system is the main characteristic of the countries compromising the cluster (ibid.).

Lastly, the final cluster only consists of the United States, because of the country's "large advertisement market, its weak public service media and its comparatively fragmented news consumption" (Humprecht et al., 2020, p. 506). Furthermore, the US is an attractive target for producers of disinformation, because of the enormous market and the "competitive and commercial culture" (ibid.). Additionally, the American news media faces low levels of trust, and the country in general "is characterized by high levels of populist communication" (ibid.). All of these features result in the claim that the United States "must be considered the most vulnerable country regarding the spread of online disinformation" (ibid.).

Given the fact that Belgium is part of the first cluster, the country is considered to be relatively resilient to online disinformation and it "can be considered a minor problem at present" (Humprecht et al., 2020, p. 507). Unlike the US, this cluster's countries are considered to be highly resilient to online disinformation, because of their "low levels of polarization and populist communication, high levels of media trust and shared news consumption, and a strong PSB [public service broadcasting]" (Humprecht et al., 2020, p. 507). Additionally, cluster 1 countries are said to be highly resilient to online disinformation due to the fact that "they have stable, trusted institutions that enable citizens to obtain independent information and uncover manipulation attempts" (ibid.). However, this does not mean that these countries should rest on their laurels, as it is not excluded that online disinformation will become a larger threat in the future (Humprecht et al., 2020).

The *example par excellence* to illustrate this is the United Kingdom and the 2016 Brexit campaign. Even though the country belongs to the cluster in which countries are most armed against disinformation, and it "has a long democratic tradition and the BBC is a wide-reaching and greatly trusted media organization", disinformation proved to be a serious problem both during the campaign and in its aftermath (Humprecht et al., 2020, p. 508). The continued debate caused further polarization between 'Remainers' and 'Leavers', and impacted the political landscape profoundly, "i.e., the 'Brexit Party' of Nigel Farage constantly attacking the BBC" (ibid.). Thus, also in the first cluster countries should be on their guard for online disinformation.

Even though, as already mentioned above, the threat of disinformation in Belgium is relatively low and the examples of disinformation are rare compared to other countries, "the issue has featured on the political agenda" (Newman et al., 2019, p. 71). Case in point is the creation of an expert group on disinformation in 2018 by the former Minister for Digital Agenda, Alexander De Croo as part of the Stop Fake News project. In their report on fake news and disinformation, the expert group reiterates the low impact of disinformation in Belgium. Nevertheless, the researchers also point out that it is impossible to be completely certain that the impact of disinformation in Belgium will stay limited (Alaphilippe et al., 2018).

The report calls for more vigilance concerning propaganda and misleading information online in the case of radicalized Belgian youths leaving to Syria, for example (ibid.). Furthermore, the expert group argues that Belgians do get exposed to disinformation circulating in international news media and on social media. Consequently, the traditional Belgian media is blamed of withholding information by some, and an atmosphere of mistrust towards the traditional media is created (ibid.). This is identified in the report as a possible breeding ground for successful disinformation and the possible manipulation of a part of the Belgian population (ibid.). Another challenge Belgian media face is "sloppy or bad journalism whereby journalists barely get the time to check their sources and unintentionally spread incorrect or incomplete stories", which can be perceived as a different type of disinformation (Billiet et al., 2018, p. 50).

Government support for funds supporting the fight against disinformation and fake news has been rather low. For instance, the in 2018 announced fact-check fund, which creation was recommended by the expert group, had been cancelled because of the fall of the government which followed after disagreement on the UN Global Compact for Migration in December 2018. Interestingly, the political perils could be partially ascribed to the issue of fake news, since both sides in the government dispute accused their counterpart of following and spreading fake news (Vlaams Journalistiek Fonds, 2019). Furthermore, the expert group only published one report so far, and the Stop Fake News project does not seem to be active anymore.

How the newly formed federal government will cope with this problem is still unclear at the time of writing. It is clear, however, that the issue is still featured on the political agenda, as one part of the government agreement reads: "The government is strengthening measures to combat disinformation and the spread of fake news, which pose a real threat to democracy" (*Regeerakkoord 30 September 2020. Voor Een Welvarend, Solidair En Duurzaam België*, 2020, p. 83). If this would be in the form of legislative measures, then this would mean a rupture with the Belgian government's previous discourse on the matter. In the past, concerns were raised

that possible legislative measures to counter fake news could endanger freedom of expression and impose censorship (Coche, 2018a). This reluctant attitude contrasted with the legislative measures that were adopted by neighboring countries such as France and Germany (e.g. Le Monde, 2018; Miller, 2017).

Even though Belgium is part of the Western democracies that are most resilient to online disinformation, it has been an issue that is being more and more addressed and been featuring on the political agenda with varying degrees of success. Nevertheless, the message of its first and only report about fake news and disinformation is clear: even though the impact of disinformation might be rather low at the moment, there is no guarantee that it remains this way. Moreover, since fake news and disinformation are global phenomena, it is very unlikely that Belgium is not influenced by these (Coche, 2018b).

Fake news in Belgium

Even though it is said that the impact of disinformation is rather low in Belgium, there is no way of knowing this with certainty, as a lack of research on fake news and disinformation in Belgium, and in Flanders has been identified. The few studies that have been made pointed out some recent examples of fake news influencing the Belgian public debate and its media landscape (Coche, 2018a). The encountered instances of disinformation in Belgium range from fake news articles disguised as coming from mainstream news website to online manipulation by Russian internet trolls trying to incite hatred and intolerance. Furthermore, it was found that "'Fake news' is […] clearly present in the Belgian public discourse" (Coche, 2018a, p. 5).

Firstly, it has been established that Belgian politicians, both French and Flemish speaking ones, have been increasingly using "the term 'fake news' to discredit news media" and to silence criticism (Coche, 2018a, p. 4). In addition, there is a tendency of politicians to exclude traditional media by bypassing them through their social media accounts. In 2018, for example, the then Prime Minister Charles Michel caused controversy by bypassing the media when he posted a statement on his personal Facebook account about the Sudan migration scandal (Coche, 2018a).[15] This circumvention of the press is problematic as it "can contribute to the

[15]This scandal rocked Belgium and its government when after the forced repatriation of 100 Sudanese migrants – organized by the then Minister of Asylum and Migration Theo Francken together with the Khartoum government – it became clear that several deportees were tortured (see e.g. Boffey, 2018; Cerulus, 2018). On 27 October 2020 the European Court of Human Rights ruled that Belgium's deportation was unlawful (Amnesty International, 2020).

emergence of 'fake news'" (Coche, 2018a, p. 35), since "[t]he lack of editorial oversight on social media allows for false messages to be spread" (Coche, 2018a, p. 4).

Besides that, instances of intentional disinformation can also be observed in Belgium. In 2017, for example, an article that at first glance looked like it was published by the news website of *Le Soir*, a Belgian francophone newspaper, claimed that 30% of the presidential campaign of French president Emmanuel Macron had been financed by Saudi Arabia (Coche, 2018b). Even though the article had exactly the same lay-out as any other *Le Soir* news message, it was in reality shared by the fake news site 'lesoir.info' instead of the official 'lesoir.be'. It was suspected that the news article was Russian propaganda (Clappaert, 2017).

There is also ample evidence that Russian 'internet trolls'[16] were active in the Netherlands and Flanders after the 2016 Brussels bombings according to an investigation made by the Dutch broadsheet *NRC Handelsblad* (Kist & Wassens, 2018a, see also 2018b).[17] Shortly after the attacks more than 130 tweets in Dutch were sent by fake accounts that same day. These accounts were working for the Internet Research Agency (IRA), which is a 'troll farm' based in Saint Petersburg, Russia (ibid.). The investigation established that Dutch tweets were copied by the Russian trolls and posted with additional anti-Islamic hashtags in order to stir up anti-Muslim sentiments (ibid.). The 2016 Brussels bombings could be considered as a key moment in the Dutch speaking world concerning online disinformation as it is possibly the first moment that large numbers of internet trolls were active in Dutch (ibid.).

Moreover, there has been indications that disinformation has influenced the Belgian public debate. An example of when the Belgian democratic system has been severely affected was when a fast-track adoption of the extended settlement law was voted (Coche, 2018a).[18] An investigation conducted by Apache and Médor, both news platforms for in-depth investigative journalism, suggested that there were clear indications that the public opinion had been influenced by a 'black-pr campaign' organized by a fake news platform called Open Source Investigations. This was done in order to minimize the role of a specific billionaire who is

[16] These can be described as Internet users who, often under a false name, post messages to manipulate news and sow discord (see e.g. Kist & Wassens, 2018a; Pomerantsev, 2019).
[17] On 22 March 2016 two suicide-bombings at Brussels Airport in Zaventem and one in Maelbeek metro station in Brussels found place, leading to the death of 35 people, including three of the perpetrators. The Islamic State claimed the terrorist attack.
[18] Also known as the 'afkoopwet' in Belgium which allows for the clearing of criminal charges in return for payment.

claimed to have influenced the fast adoption of this law (Cochez, 2017; Walravens & Cochez, 2017).

As already mentioned, the phenomenon of fake news and disinformation is highly under-researched in the Belgian and Flemish context. This makes it hard to estimate in how far the issue affects Belgian society, and how much stays under the radar. It is clear that Belgians do get influenced by international (social) media fake news messages, and that global trends, such as politicians by-passing journalist with the aid of social media, have found their way to Brussels. Though the given examples are merely illustrative and not an exhaustive list, they do paint a worrying picture of how disinformation can appear in a country that is supposed to be highly resilient to it.

News media's response to fake news

Since disinformation is present in Belgium's media landscape, it is interesting to take a look at how the Belgian news media respond to this phenomenon.

In 2017 Belgian media reacted with a certain reluctance to the idea of developing fact-check collaborations with social media platforms, in contrast to their colleagues in France and the Netherlands (Coche, 2018a). In response to the French *Crosscheck* initiative[19] Daniel van Wylick, president of Lapresse.be asked: "if this cleaning is done in order to profit the image of Facebook and Google, is it our task to do it? Don't lose sight that they are our first competitors in terms of advertisement space as well as free content" (translation as quoted in Coche, 2018a, pp. 30–31; original quotation in French in Delhalle, 2017).

An article of Poynter points out Belgium's reluctance to participate as follows: "When Facebook shows a map of countries in which its fact-checking program is active, Belgium appears as a hole — right in the heart of Europe" (Tardáguila, 2019). Additionally, so far there is only one Belgian verified signatory of the International Fact-Checking Network (IFCN)'s Code of Principles, which is the Flemish *Knack,* a current affairs magazine with an online version.

[19] An initiative between Google Labs and First Draft which was created in 2017 a few months before the presidential elections started. The initiative brought French newsrooms together to fight against (political) disinformation.

Some explanations provided for Belgium's lack of presence in the fact-checking world is that due to the small market size people on both sides of the language border know all the media brands which make it easy for people to recognize when a news website is fake (Tardáguila, 2019). On the other hand, even though there are not that many news media, this does not mean that it is easy to control disinformation in the country. As illustrated above, fact-check initiatives would have in some instances been useful for Belgians to help them distinguish between facts and fiction, especially on social media.

One of these initiatives based in Flanders is *Factcheck.Vlaanderen*,[20] which is an online platform that uses artificial intelligence to detect disinformation and polarization for fact checkers to interpret and to combat it. Furthermore, Flemish and Dutch academics cooperated together in the development of "a novel claim detection tool for journalists specifically created for the Dutch language", which is probably, "the first and still the only such tool for Dutch" (Berendt et al., 2020, p. 1). This tool called *FactRank* is currently used by inter alia the VRT and *Knack*, and can help strengthen "the watchdog function of journalism" (Berendt et al., 2020, p. 23) .

More than engaging in fact-check initiatives, "[m]ost news media have, until now, mainly focused on creating awareness and educating people to distinguish between 'fake' and 'real' news" (Coche, 2018a, p. 31). This ranges from publishing articles about different types of mis- and disinformation, and fake news (see e.g. Deckmyn, 2016), to the organization of several events that aimed to raise awareness about the issue of fake news (Coche, 2018a). Additionally, there has also been government support for improving citizens' media literacy (ibid.).

Despite these efforts on creating awareness and the improvement of this skill, the Flemish news consumers score lower than average in terms of media literacy (Coche, 2018b; Newman et al., 2018). Given this fact, it is possible that they are more exposed to disinformation and fake news than they realize as media literacy makes the change bigger to identify different forms of disinformation (ibid.).

Covid-19 related disinformation in Flanders

This thesis does not aim to provide an exhaustive list of all Covid-19 disinformation instances in Flanders. However, below some interesting examples are provided that indicate that, despite

[20] https://factcheck.vlaanderen/

its high-quality and widely trusted traditional media, disinformation is present in Flanders, and has a considerable societal impact.

At the time of writing no flagrant disinformation is shared by Flemish traditional media. When instances of Covid-19 disinformation are covered by them, it is mostly in the form of fact-checks. For example, fact-checks on the pandemic have been carried out by the newsmagazine *Knack* and VRT NWS on a regular basis.

Conspiracy theories and groups are on the rise on social media platforms, such as Facebook. An organization called *Viruswaanzin vzw*, which literally translated means virus madness, has been questioning the pandemic often based on arguments that are rooted in disinformation or fake news messages. They went so far to file a complaint against one of the most prominent Flemish virologist Marc Van Ranst, and accused him of spreading misinformation, abusing his position as a medical doctor, and of sowing fear among the population (HL, 2020).

Furthermore, it has been determined that a general practitioner living in Wilrijk, Flanders, might be behind one of the most prominent global Covid-19 conspiracy theories that circulate online, namely that 5G causes the illness (De Coninck, 2020). As a result, multiple 5G transmission towers have been set on fire worldwide. So far, only one transmission mast has been set on fire in Belgium (ibid.). This incident illustrates that disinformation regarding the coronavirus has an impact on citizens and is by some believed.

Furthermore, there are indications that the framing of the pandemic in the news media negatively affect certain minority groups and stimulates ethnic discrimination. A recently published suggest that people of Maghrebian descent are more likely to be discriminated on the Belgian housing market during the pandemic than before (Verhaeghe & Ghekiere, 2020). One of the offered explanations is the fact that the "Belgian media especially paid attention to the potential higher prevalence of Covid among the Maghrebian and Turkish communities in Belgium", according to the researchers (Verhaeghe & Ghekiere, 2020, p. 13).

These abovementioned instances illustrate that Belgium is not isolated from the worldwide trend of Covid-19 conspiracy theories and disinformation. Furthermore, they also indicate that they impact its citizens and lead to cases as vandalism and discrimination of already vulnerable members of the population. In addition, this might be a sign of Belgians' low media literacy level (Newman et al., 2018).

Flemish journalism and Covid-19

There is a limited amount of data available on how the corona crisis has affect the Belgian, and Flemish media landscape at the time of writing. The biggest survey made so far has been the one of the Center for Journalism Studies (CJS) and the Flemish Association for Journalists (VVJ), which was conducted in April 2020. The arrival of the SARS-CoV-2 virus is labelled "a tipping point in the Flemish journalistic sector" (see the study's title Van Leuven et al., 2020). It was found that at least 70% of Flemish journalists are involved with the coverage on the coronavirus (Van Leuven et al., 2020). Evidently, a sharp increase in the number of coronavirus related articles found place when the virus' severity became clear. Initially, in January the Flemish media did not pay much attention to corona and mainly reported on developments in China. This changed in the course of February and especially when in the beginning of March "it became clear that the virus would seriously affect Flanders as well", the number of articles sharply increased (De Ridder, 2020, p. 5). While on average 72 daily articles on the coronavirus were published by Flemish news media in January 2020, the subject attracted far more attention in the subsequent months: in April an average of 231 articles per day was reached (Van Leuven et al., 2020).

In terms of journalistic sourcing, the pandemic has been challenging for many reporters. One third of the Flemish journalists, and 46% of freelance journalists struggle with finding reliable information when covering the pandemic, while 60% finds that a great amount of fake news stories on the coronavirus are circulating, "just at a time when correct information is of crucial importance" (Van Leuven et al., 2020, p. 10). In this context, the VVJ calls for more and continued investments in journalism, one of the reasons being the fight against disinformation and fake news on corona and other significant topics.

Importantly, even though there is a lot of pressure to publish news on the pandemic as soon as possible, the majority of journalists stress the importance of sufficiently verifying information before publication (Van Leuven et al., 2020). Several news media also actively go against Covid-19 fake news and disinformation, for example the VRT NWS's online '*Check-rubriek*' (Deltour, 2020).[21]

Just like in many other countries around the world, also in Belgium 'the corona-news paradox' became apparent. While news consumption rises, the Union of Belgian Advertisers (UBA) reported in April that 80% of the advertisers have postponed their advertising campaigns since

[21] https://www.vrt.be/vrtnws/nl/dossiers/2020/02/check/

the start of the corona crisis (Deltour, 2020). Media companies are facing huge losses, news company Mediahuis, for example, estimates a loss of at least €10 million this year for its declining sales in newspapers (ibid.). Unfortunately, this loss of advertising revenue is not compensated by the surge in news consumption (ibid.). The pandemic made – not for the first time – the news market's vulnerability clear and how much it depends on advertisement revenue.

Generally, the basic rules that constitute good journalism – such as informing the public in a clear, concise and correct way – are declared to be followed by the Flemish newsrooms (Deltour, 2020). Nevertheless, the corona crisis does create challenges for journalists and their ability to exercise their profession. First of all, journalists' working methods are considerably changed. This is on the one hand because of organizational reasons – the only press conferences are held by Internal Affairs and are on the coronavirus – but, evidently, also because of the adopted health measures that aim to curb the pandemic.

When the national government announced a far-reaching lockdown in the middle of March to stop the spread of the coronavirus, they also stated that journalism and the media are part of a crucial sector, which implies that their services are essential (Deltour, 2020). For this reason, the media was still able to work, but some changes were made. As with most of the jobs in Belgium, newsrooms were asked to have as many employees as possible working from home, and to apply social distancing. As opposed to some countries, the Belgian government did not interfere with the corona coverage, according to VVJ (Deltour, 2020).

Teleworking has proven to be positive in terms of work efficiency and speed, and there is a high likelihood that the corona crisis has nudged the profession's digitalization into a higher gear (Deltour, 2020). On the other hand, journalists have reported that they missed being physically present in their respective newsrooms and that it is still a highly valued way of working. Therefore, it is expected that teleworking will grow more popular in the future but that it will not totally replace working at the office (Deltour, 2020).

One remarkable finding is the shift in source material. Reporters conduct less interviews because it is either not possible with the social distancing measures in place, or they face technological problems when trying to do so digitally. For example, 29% have reported to have had some sort of problem while interviewing someone online, and 35% struggled with online tools in general (Van Leuven et al., 2020). Interestingly, this last number is far lower with freelance journalists, possibly because they are used to working from a distance and by doing

so with applying digital tools (ibid.). Evidently, some of these problem are just a matter of familiarity with such digital tools and while be solved over time.

Besides this lack of physical interviews, there are also far fewer press conferences held, for that reason journalists shift their focus to online sources. Mainly social media and websites have been increasingly used as news sources, as are international media (Van Leuven et al., 2020). This is a remarkable development in terms of journalistic sourcing, as seven years ago Van Leuven et al. identified a preference for the use of traditional journalistic sources in the news gathering process among Flemish journalists and a reluctance to use online sources, such as user-generated content and social media platforms (Van Leuven et al., 2013). Another source that is more frequently used are scientists, researchers and experts, 50% of journalists indicate that they use these people more frequently as a source than before the pandemic.

On the other hand, these new working conditions and shift in sources are also contested, since "the authenticity of physical interviews, reports and debates"[22] cannot be replaced by any digital tools (Deltour, 2020). Furthermore, research proves that besides the technological challenges, many journalists also experience difficulties to access certain sources. Around 20% of reporters have been denied access to important locations (e.g. courthouses and city council), and more than a quarter were not allowed to talk to certain ministers and scientists (Van Leuven et al., 2020). Therefore, it seems that "politicians and policymakers limit their accountability to a select group of media/journalists"[23] (Van Leuven et al., 2020, p. 22), and it should be prevented that health concerns are merely used as an excuse in order not to grant the press access (Deltour, 2020). Evidently, this is not how a media market in a democratic country is supposed to function.

Furthermore, solidarity between newsrooms has increased. Doing journalistic fieldwork is currently discouraged, just like big gatherings while conducting interviews with members of the government. As a consequence, 'pool working' has become increasingly popular. For example, Belgium's four biggest broadcasters VRT, VTM, RTBF and RTL decided to share images more quickly with each other than before (Deltour, 2020). Even though these developments are necessary in times like these, the VVJ (Flemish Association of Journalists) expresses its concern about this becoming the norm, as this way of working could endanger

[22] My translation, original sentence in Dutch
[23] My translation, original sentence in Dutch.

media pluralism and create less diverse news media when carried out in a structural way (Deltour, 2020).

Secondly, journalists' mental health is also affected by the coronavirus pandemic. Research shows that between 30% and 40% of journalists are feeling anxious and nervous because of recent developments (Van Leuven et al., 2020). Important to note is that they have the choice to refuse assignments if they are concerned these would endanger their health (Deltour, 2020). Additionally, for freelance journalists the current situation is especially challenging, as 73% are worried about financial losses and 65% indicate that they are concerned about employment security (Van Leuven et al., 2020).

On the one hand, the coronavirus pandemic is providing a chance to the media to show how indispensable and much needed their services are. Even in this so-called 'post-truth society' news media are the ones that deliver – especially nowadays even life-saving – facts. Moreover, overall news consumption has recently risen (see supra). Therefore, it is of the utmost importance "to valorize these gains in news consumption and news appreciation also for post-corona times" (Deltour, 2020).[24]

On the other hand, the crisis' negative impact is more likely to outweigh the positive impulses it creates. There are legitimate concerns about article 19 of the Universal Declaration of Human Rights (UDHR), the freedom of the press. Although many other countries are facing a situation that is far more severe than in Belgium, there have been some sore points identified. For instance, the first six months of the pandemic took place while Belgium found itself in an exceptional political situation. Until September 30, the formation of the Belgian federal government was after more than a year still ongoing, which meant that then ruling minority government had unusual proxies because of the corona crisis (De Groote & Verelst, 2020). This called for vigilance and was an argument in favor of more, instead of less journalists today (Deltour, 2020).

Moreover, insufficient media pluralism is still a source of concern. For example, in August *De Tijd*, a well-respected business newspaper, published an opinion piece on its website by Elke Cloots professor of media law at the University of Antwerp. In this article Cloots criticizes the Covid-19 coverage of the VRT. She writes that VRT has two roles being the public broadcaster: to adequately inform citizens about the corona crises, and as it is considered to be democracy's watchdog, to criticize the measures taken by the Belgian government (Cloots, 2020). While the

[24] My translation, original sentence in Dutch.

VRT succeeds in providing reliable information to citizens, its second role is claimed to be neglected (ibid.). This is problematic, states Cloots, as questioning government measures is "crucial for citizens to judge the legitimacy of the measures and the politicians who take them"[25] (ibid.).

Some instances where VRT's approach falls short is the moment when the mayor of Antwerp was asked on TV why not more severe measures were being taken to curb the growing corona cases in the city. This while stricter measures such as a curfew were introduced, something that has not been done since the Second World War (ibid.). Another example are the color codes assigned to countries and which prevent Belgian citizens to travel there. These are given by the expert group Celeval based on untransparent and arbitrary criteria, which is also not questioned by the VRT (ibid.). Thus, Cloots warns for a public broadcaster that becomes the state's mouthpiece (ibid.).

Method: interviews with Flemish media actors

In order to answer the thesis' research question: *how has the media landscape in a country with both a high level of press freedom and resilience to online disinformation been affected by this Covid-19 'disinfodemic'?*, Flemish media actors that either worked around the subjects of Covid-19 and fake news or have an overview on how the phenomenon of disinformation occurs in the media landscape were contacted by e-mail. Media actors working for different kinds of news outlets, either news websites or newspapers, were contacted in order to gather insights both from people that are employed in the mainstream media as from people working for alternative media or independent organizations. This was done with the aim of collecting diverse yet balanced perspectives on the matter.

Three kinds of profiles of Flemish media actors were selected: Flemish journalists, fact-checkers and a news ombudsman. The reason why journalists were picked is quite evident: they are the actors most likely to be named by Belgians when asked whose responsibility it is to stop the spread of fake news (European Commission, 2018). Furthermore, since this thesis investigates how Flanders' media landscape is affected by the Covid-19 'disinfodemic', they are in the appropriate position to share their thoughts on how (and if) they experienced a shift while performing their job during the past six to seven months, since the beginning of the

[25] My translation, original sentence in Dutch.

pandemic in Belgium (3 February)[26]. Secondly, journalists that mainly work as fact-checkers were asked to participate, as fact-checkers are part of the media landscape, though they are not easy to categorize, since they belong to "a spectrum between reporters, concerned mainly with providing information to citizens, and reformers, focused on promoting institutional development or change in politics and/or the news media" (Graves & Cherubini, 2016, p. 8). These actors are particularly interesting since they completely devote their time to verifying information, and therefore are able to indicate whether there is a surge in circulating mis-and disinformation.

Lastly, the Flemish news ombudsman was interviewed. He has a unique position in the Flemish media landscape, as he is the one that monitors if VRT News respects its own editorial statute, defends or critique the choices made by VRT News, mediates between the public broadcaster and the public, and the one that answers the public's major questions. Furthermore, he was a member of the expert group that made the only report so far on fake news and disinformation in Belgium that was requested by the Belgian government (see Alaphilippe et al., 2018). Thus, he is a media professional that has a thorough understanding of disinformation's presence in Belgium in general, and in the Flemish media landscape in specific.

In total nine interviews were conducted between 29 September and 20 October 2020. All research participants had an insight into the phenomenon of Covid-19 related disinformation. Out of the eight journalists, four of them work for mainstream major Flemish news outlets, ranging from popular newspapers to the public broadcaster, and one journalist is employed at an alternative independent news magazine. Three journalists mainly work as fact-checkers. One is employed at the public broadcaster, while two are fact-checking for an independent fact-check organization. One interviewee works as the public broadcaster's news ombudsman. Eight interviewees were male and one was female; three of them work in senior roles.

The nine qualitative interviews were conducted via online videocalls due to the Covid-19 social distancing measures, which made it difficult to meet in person, in place at the time. The reason why it was decided to conduct qualitative interviews was because it "enables the researcher to portray a context in greater complexity and depth, thereby allowing individual opinions and attitudes to surface" (Lecheler & Hinrichsen, 2010, p. 79). An interview guide was made with semi-structured open-ended questions as with this approach one is able to "explore a topic more openly and to allow interviewees to express their opinions and ideas in their own words"

[26] On this date the first case of Covid-19 was reported by Belgium. A person who was repatriated from Wuhan tested positive (Galindo, 2020).

(Esterberg, 2002, p. 87). Furthermore, it has been noted that with this method "the interviewed subjects' viewpoints are more likely to be expressed in an openly designed interview situation than in a standardized interview or questionnaire" (Flick, 2014, p. 150). Before the start of the interviews, the respondents were informed via a consent form that the interview would be recorded and that their participation happens completely on a voluntary basis. It also assured them that the collected data would be anonymized.[27] The average interview time was 38 minutes. The number of nine interviews surpass the recommendation "of eight respondents for qualitative, semi-structured interview" (Schapals, 2018, p. 983).

Data analysis

The recorded interviews were afterwards transcribed verbatim in their original language (Dutch). Next, the interview transcripts were analyzed by means of the method of qualitative content analysis as introduced by Mayring (2000). The concept of qualitative concept analysis refers to "an approach of empirical, methodological controlled analysis of texts within their context of communication, following content analytical rules and step by step models, without rash quantification" (ibid.). Tentative categories were deduced after having read the gathered material several times. Subsequently, with the help of a feedback loop these different categories were revised and ultimately reduced to main categories. The subjects that are discussed in the results section below have been selected based on similarity of response, and exceptionality of response, and are based on statements that have great explanatory power. Finally, the quoted citations were translated as close as possible into English.

Results

The interviewed media actors touched upon major topics such as journalistic sourcing and the role of the news media so far in the pan- and disinfodemic. Furthermore, the presence of disinformation in Flanders and Belgium has been extensively discussed.

[27] When anonymity could not be guaranteed due to the interviewee's unique job position, explicit permission was asked for the used citations.

Journalists and the disinfodemic

Several interviewed journalists emphasize their role of providing reliable information to the public and underline their role as journalists in curbing fake news and disinformation. Generally, the interviewees were positive about the Flemish media's performance regarding coverage on the pandemic. The information on the corona crisis that was shared by traditional media was deemed to be reliable and informative. Nevertheless, it has been repeatedly acknowledged that there is room for improvement.

A journalist working at a tabloid newspaper told that

> I do think that the media, with all its limitations, has played a positive role as far as possible. (Personal communication, 15 October 2020)

Another reporter said similarly that

> I think a lot of newspapers have performed very well. I think there have only been a few newspapers in the world where the severity of the epidemic has been recognized so quickly as in the Flemish ones. I think we have helped to raise awareness among the population. In addition, I think all journalists have made very few really serious mistakes. (Personal communication, 9 October 2020)

Even though all interviewees praised the quality of the Flemish media landscape, they were also critical towards it, indicating that Flemish media should not rest on its laurels. It was argued that time pressure was often a reason why some sources could not be extensively enough verified. It was emphasized that the media should focus on offering more resistance to disinformation, and actively oppose disinformation and fake news through fact-checking. Several sources, however, stressed that the financial side of that endeavor should not be carried by the media. For example, the Flemish news ombudsman remarked the following about Covid-19 reporting

> I don't think the Flemish media did a bad job. The filter has worked well, we just haven't debunked enough and if we do, we don't have enough impact on social media. We still have quite strong media in Flanders. Even our most popular newspapers, which could be much less responsible, behave quite responsibly. Certainly, in connection with corona, I don't really see a lot of things that have gone wrong in the journalistic media. (Personal communication, 20 October 2020)

Furthermore, some questioned why news media – even though they are in a good position to decide about fact – should be in charge of stopping fake news, as they are not the one causing it. The ombudsman complains:

> It is fundamentally problematic that social media would decide for themselves what is true and what is not. On the other hand, it is equally problematic that the government

> would decide this. This is not an unsolvable problem since there are people whose job it is to decide what is true and what is not. The two categories of people that do so arejournalists and scientists. Only, these people don't have the finances to thoroughly oppose fake news. Further, it is highly problematic that media groups actually have to clean up the garbage of others. On the editorial staff they often ask themselves the question when a fake news report comes out: we haven't published it, why do we have to correct something that someone else has published? Actually, the polluter, in this case social media, should pay. (ibid.)

Journalistic sources

Almost all respondents indicate that the Covid-19 circulating disinformation did not affect their ability to obtain reliable information and sources, also when these sources were online.

Several interviewees indicated that the enormous amount of information circulating on the coronavirus pandemic was more challenging than the circulating disinformation in terms of journalistic sourcing. Their statements were in line with what Himma-Kadakas and Palmiste have indicated as one of the major challenges of the enormous amount of online information, namely the time it takes to filter it (Himma-Kadakas, 2017; Himma-Kadakas & Palmiste, 2019). For example, when thinking about the past months – since the beginning of the pandemic in Belgium – a journalist who at the time was working for the public broadcaster's news website, said

> I didn't really have the feeling that I came into contact with a lot of disinformation. I did get in touch with an overload of information that changed rapidly. Making it sometimes very difficult to share the right information. In addition, it was very hard to filter relevant information from that abundance. If I'm honest, I can't be sure that at certain moments no incorrect information was sent into the world because of the overload and the rapid change of the information. Of course, I did this without any bad intentions. (Personal communication, 1 October 2020)

More specifically, numerous journalists referred to the dangers of using non-peer reviewed scientific sources when writing about the pandemic. One science journalist working at a broadsheet explained that

> What makes it difficult to report on this pandemic is that a lot of non-peer reviewed studies have been published online before they were peer-reviewed and published in a scientific journal. This is a new phenomenon and makes it harder to verify the scientific results in such studies. (Personal communication, 9 October 2020)

Generally, the interviewed journalists had no difficulties finding reliable sources, as experts, such as virologists, and politicians were reported to be very open for questions and interviews.

Furthermore, government websites were fast to publish trustworthy data on e.g. the amount of corona cases. One journalist working at a popular newspaper phrased it as follows

> I know a lot has been said and written about fake news, but Covid-19 disinformation hasn't really bothered me much. The information that was shared by official channels has sometimes turned out to be wrong simply because the initial insights on the coronavirus were different than they are now. Certainly, in Flanders, I have the feeling that the government, politicians, and a specific group of virologists have always been extremely accessible and have communicated very smoothly. For that reason, I feel that they have more than drowned out the Covid-19 fake news that is circulating on social media. (Personal communication, 9 October 2020)

However, a discrepancy regarding this was present, as not every interviewee was that convinced by the state's communication. This could be related to the exceptional political situation in which Belgium found itself in the pandemic's first half year. A political journalist complained that

> There have been painful moments when it was very difficult to hold someone accountable. When the authority is not clearly in the hands of one politician this is always the case, e.g. at one moment five ministers were authorized for everything that was involved with mouth masks. Then, a kind of dance of passing the buck started. Because these new political powers came into being during the pandemic, they sometimes functioned as an excuse not to be held accountable and led to scarce communication from some politicians. (Personal communication, 1 October 2020)

Covid-19 disinformation

All interviewees indicated unanimously that – besides some cases of sloppy journalism and the use of sensational titles in articles published by a tabloid newspaper – no real, intentional disinformation was spread by the traditional news media. When disinformation and fake news messages were repeated it was in the contexts of fact-checks. Journalists interviewed whose main job is fact-checking, were conscious of the counterproductive effects this can have and were also skeptical about its impact.

One fact-checker mentioned

> I'm not even sure that fact-checking is *a* solution. We will never reach the real conspiracy thinkers. I don't think there is a silver bullet in the fight against fake news. (Personal communication, 29 September 2020)

Interestingly, fact-checkers point out that since the Covid-19 pandemic they are experiencing more hostility of the public when they publish fact-checks on corona related issue. One states that this could be due to the fact that before the corona crisis the concepts of fact-checkers was an unknown concept for many Flemings.

This independent fact-checker believes that

> Since the pandemic fact-checker has become a word that people use as an insult. The problem is also that people don't really understand what a fact-check is. They think we somehow invent the truth, but that's not the case at all. We simply consult sources that show that something is true or false. (Personal communication, 14 October 2020)

It was repeatedly said that only using fact-checking as a fake news strategy is insufficient and that there should be an awareness about how news media is influenced by the roles of social media, and that the latter should take its responsibility in this matter. Subsequently, it was argued that social media's obligations in relation to stopping fake news should lead to the state adopting legislation revolving this.

In relation to this a journalist working at an alternative independent news magazine pointed out that journalism should aim higher than fact-checking, as

> Above all, journalism must dare to lobby for stricter regulations and stricter standards related to social media and fake news. Journalism should dare to be less dependent on social media. There are media companies that blindly follow social media platforms' modus operandi and do not stray from it. That's not journalism, that's entertainment. (Personal communication, 15 October 2020)

Many identified the corona crisis as a possible tipping point in terms of disinformation in Flanders and the rest of Belgium. A rise in conspiracy Facebook groups and websites, such as

Viruswaanzin, has been noted which share mis- and disinformation on the coronavirus based on several conspiracy theories. Several media actors signal worrying phenomena, which suggest that the corona crisis might have caused an acceleration of already existing disinformation developments in Flanders.

The journalist working at an independent alternative newsmagazine explained:

> There is little better than a pandemic to spread conspiracy theories. There are a lot of factors involved, more people are inside, more people are isolated. These are all risk factors for radicalization and increase vulnerability to conspiracy theories. It's a period of much and rapid change that also encourages this. Should we be worried in Flanders? I hope we already are. (Ibid.)

The news ombudsman points out a worrying evolution. After having received a lot of support for the work of the public broadcaster from March until May, he noticed an interesting shift in August, as he explains

> In August the big turnaround came. Suddenly I noticed a totally different atmosphere with a lot more disinformation, which is now decreasing again. I have no real explanation for this, except that I'm afraid it might be organized. This is a feeling. I cannot prove it. I have no evidence of there being foreign influence. However, there is a research published by the collective Pointer in the Netherlands which has found 50 fake twitter accounts that deliberately spread disinformation. I don't see why, if that'sthe case in the Netherlands, it wouldn't be the case in Flanders. (personal communication, 20 October 2020)

These findings will be discussed further below in the discussion section.

Discussion

Three major subjects came up in almost every interview: the role of the journalist during the pan- and disinfodemic, the availability of reliable journalistic sources, and the presence of Covid-19 disinformation in Belgium. The findings discussed above provide first insights into how Flemish news media actors have experienced the Covid-19 disinfodemic so far, and how this pandemic impacted the phenomenon of disinformation in a country that is claimed to be highly resilient to it. Further, it adds insight into the understanding of the journalistic news production process in times of crisis in general, and in times of a pandemic in specific. The statements regarding sourcing were in line with what Van Der Meer et al. (2017) determined about reporters falling back on “routine sources” in times of crisis, in this case this were sources such as the government and health experts/virologist (Van Der Meer et al., 2017, p. 1119).

In many cases statements on the role of journalists in the disinfodemic referred to the practice of gatekeeping and being a watchdog. Sources also agreed that Flemish news media did a relatively good job in covering the pandemic and in filtering the "tsunami of information" down to comprehensive and clear-cut information for their reader (Zarocostas, 2020). Some cases of sloppy journalism were noted but this is not necessarily a new issue that was caused by the pandemic, as earlier research has established similar findings (Billiet et al., 2018). A new development noted is that due to the coronavirus pandemic there is a growing focus on fact-checking, which was not the case in the past (Tardáguila, 2019). Despite many sources acknowledging that news media is well-placed to contribute to the curbing and fact-checking of fake news, and disinformation in general, multiple times the frustrated question was raised if this really *should* be the role of journalists, even if they *could* and *are* doing it.

Multiple times, social media companies' responsibility in the dissemination of online disinformation was raised as an argument that it should also be their responsibility to combat it. In doing so, the influence of these platforms on the news production process were also questioned. However, many are also aware of the contradictory position news media take: they warn people about not using social media platforms as a lot of fake news circulates on these platforms, yet news media use these platforms themselves to promote their own publications.

Lastly, the interviews' findings are valuable as they provide us with preliminary insights into how much Flemish news media and the region in general has been affected by the disinfodemic in terms of the presence of disinformation. Interviewees indicated the strength and high quality of the Belgian and Flemish news media and remarked that Covid-19 disinformation has, so far, not prevented reliable and verified information to be shared by the traditional media. This confirms that the reason why Belgium is very resilient towards online disinformation is partially because of the quality of its news media (e.g. Humprecht et al., 2020).

However, all interviewees indicated that a tipping point has been reached due to the pandemic, as a huge increase on online circulating disinformation was noticed. Naturally, there is the issue that the presence of (online) disinformation is under-researched which makes it hard to estimate in how much fake news has been around before the pandemic. Several statements made, stress that Belgians and their leaders should certainly be more aware of the issue of disinformation and take it more seriously, which they did not do in the past (e.g. European Commission, 2018).

It is important to interpret the abovementioned findings with the thesis' research limitations in mind. First of all, the Covid-19 pandemic is still very much ongoing, which implies it to be too

premature to make definite assumption. However, there are implications that certain things are turned upside down by the crisis.

Furthermore, only a limited amount of media actors were interviewed from which everyone, except for the news ombudsman, are employed either in print media or at news websites, or both. In order to make the research more diverse also journalists working for broadcast news should be included, for example. Furthermore, there is no gender balance in the sampling, as only one out of nine interviewees is female. However, more female journalists were contacted but chose not to participate. For these reasons, the results might not be representative, and are consequently not generalizable, for the total Flemish news media sector.

Lastly, it is acknowledged that news construction depends on the country's journalistic culture, which implies that there are local and national differences (Schapals, 2018; e.g. Tiffen et al., 2014). Thus, since this particular study sample is based in Flanders, it is entirely possible that its results are not valid in other countries. The results do, however, illustrate how certain aspects of a democratic media landscape situated in a country with high resilience to disinformation is affected by the Covid-19 disinfodemic.

Conclusion

It seems that with the Covid-19 infodemic we have entered a new era in contemporary (medical) mis- and disinformation. It is not a novel phenomenon that people share homemade cures with their family on WhatsApp, or that political leaders share falsehoods on Twitter. It is, however, new that due to the vast amount of fake news messages, an infodemic has been labelled the "first true social-media infodemic" as health threatening false messages are widely shared and drowning out reliable – and possibly life-saving – information (Hao & Basu, 2020). Further, the Covid-19 pandemic has been labelled a tipping-point, both in terms of disinformation dissemination and in terms of its impact on the journalistic sector.

Firstly, in terms of disinformation this so-called "tipping-point of a long simmering process" revealed and exacerbated several global societal developments which were already taking place for years (A. Nguyen & Catalan-Matamoros, 2020, p. 324). Decreasing levels of confidence in government institutions, a lack of resources for science and investigative journalism, the increasing power of authoritarian regimes, a worldwide decline in freedom of speech and of the press, the organized spread of divisive and polarizing fake news… in all of these trends and more the infodemic has to some extent been a catalyst.

Secondly, the corona crisis put the journalistic sector in a paradoxical situation. News media have proved, once again, that their role of providing the public with reliable information is essential for having a well-informed society. Further, globally the amount of news consumers has risen, which indicates that the public also acknowledges the value of quality news. Furthermore, journalists have focused on curbing Covid-19 disinformation and fake news by publishing reliable information and by stepping up fact-checking efforts. Not for the first time, the question was raised if this really should be the role of a journalist, which fit into the debate on journalistic roles in the digital age.

On the other hand, "the biggest journalistic story in times" has an adverse effect on the journalistic sector, as the pandemic has led to a significant decline in advertisement revenue and severe financial losses (De Coninck et al., 2020, p. 65). When this is combined with severe budget cuts, news media find themselves at the verge of ruin and consequently, this leads to a weakened media landscape. The pandemic, thus, also reveals that just like health care, news media are under-funded. This is problematic as it clearly matters to have access to reliable and quality news. Especially in an ecosystem where fake news does not face these challenges and does not play by the same rules.

On paper, Belgium looks like a country where its citizens should not be preoccupied by the phenomenon of disinformation. This is equally valid for Flanders. It does not have a highly polarized media landscape, its tabloid newspapers behave relatively responsible, and government institutions are still well-trusted. Furthermore, since internet-trolls do not seem to have mastered Dutch yet, the Flemish seem to be on the safe side of this so-called 'post-truth age'. This assumption is for some instances based on reasonable grounds. It is a fact that freedom of the press is high, and that news media have been adequately filtering out disinformation in their reporting.

However, when looking at the few in-depth literature that exist on disinformation in the Belgian/Flemish context, the gathered data, and worldwide trends, Flanders and Belgium seem more affected by disinformation than one would expect on first sight. There are known examples of false messages that were intentionally created and disseminated with the aim of disrupting the public debate and society.

Though Belgians might indicate that the problem of fake news do not really concern them, a third tipping-point caused by the Covid-19 pandemic can be discerned. Almost all media actors interviewed indicate that the coronavirus might have opened the floodgates in terms of online disinformation. This is in line with global developments and raises questions about social media's legal responsibilities in the fight against fake news. Further, several of these global trends connected to the coronavirus pandemic could be observed in the small region of Flanders. Even though it should also be nuanced that no major disproportionate infringements on the freedom of speech and the press are made in Belgium.

Thus, the media landscape in a democratic country with a high freedom of the press and resilience to online disinformation does not fall prey to a disinfodemic. Though the media landscape remains unchanged in terms of quality coverage, its journalistic practice was disturbed and a shift to the use of more online sources was established. Furthermore, it was established that the biggest problem is what is happening on social media, as there were several indications that conspiracy theories shared on these platforms do impact Belgian citizens and their attitude towards traditional media. The case-study points out the Achilles' heel of contemporary fake news mitigation: namely that combatting fake news is wrongly passed on as the responsibility of the news media.

This thesis hopes to contribute and make the research gap concerning Flanders and disinformation slightly smaller and raise awareness on the issue. The decision to focus on the

Flemish media landscape can also be useful for other democratic countries that similarly are resilient to online disinformation. Furthermore, the case of Flanders illustrates that the issue of online disinformation is on the rise in these societies, thus with this line of thought, it can serve as a warning for countries with a similar context such as the Netherlands and Denmark. Additionally, the case can be used to strive for more legislative matters to regulate online disinformation on a European level.

The thesis has only begun to scratch the surface of the Covid-19 infodemic and its impact and consequences on both the phenomenon of disinformation and countries that are considered to be resilient to it. Since the pandemic is still very much ongoing it is hard to predict what the societal, economical and socio-cultural impact will be and how the disinfodemic will develop. This thesis tried to give a snapshot of the impact of approximately six months of coronavirus on a stable media landscape. So far it seems that Flemish news media have passed the test even though there have been some cases of sloppy journalism and of framing that stigmatizes ethnic minorities. However, this might change during the duration of the corona crisis, as an interviewee indicates, the pandemic embodies a point of transition for Flemish journalists:

> It is not the first time in history that we experience disinformation, but you could say that we are in a point of transition because we are dealing with such large amounts of disinformation, spread in a way that we can't deal with yet. (Personal communication, 15 October 2020)

Bibliography

Abbas, A. H. (2020). Politicizing the Pandemic: A Schemata Analysis of COVID-19 News in Two Selected Newspapers. *International Journal for the Semiotics of Law*, *0123456789*. https://doi.org/10.1007/s11196-020-09745-2

Ahinkorah, B. O., Ameyaw, E. K., Hagan, J. E., Seidu, A.-A., & Schack, T. (2020). Rising Above Misinformation or Fake News in Africa: Another Strategy to Control COVID-19 Spread. *Frontiers in Communication*, *5*(June). https://doi.org/10.3389/fcomm.2020.00045

Alaphilippe, A., De Marez, L., Gerlache, A., Lievens, E., Pauwels, T., Picone, I., & Rouvroy, A. (2018). *Verslag van de Belgische expertengroep inzake fake news en desinformatie*. https://www.decroo.belgium.be/nl/expertengroep-formuleert-aanbevelingen-voor-aanpak-fake-news

Alimardnai, M., & Elswah, M. (2020). Trust, Religion, and Politics: Coronavirus Misinformation in Iran. In *2020 Misinfodemic Report: COVID-19 in Emerging Economies*. https://meedan.com/reports/trust-religion-and-politics-coronavirus-misinformation-in-iran/

Allcott, H., & Gentzkow, M. (2017). Social media and fake news in the 2016 election. *Journal of Economic Perspectives*, *31*(2), 211–236.

Alvarez-Risco, A., Mejia, C. R., Delgado-Zegarra, J., Del-Aguila-Arcentales, S., Arce-Esquivel, A. A., Valladares-Garrido, M. J., Rosas Del Portal, M., Villegas, L. F., Curioso, W. H., Sekar, M. C., & Yáñez, J. A. (2020). The Peru Approach against the COVID-19 Infodemic: Insights and Strategies. *The American Journal of Tropical Medicine and Hygiene*, *103*(2), 583–586. https://doi.org/10.4269/ajtmh.20-0536

Amnesty International. (2020, October 27). *Belgium: European court rules deportation to Sudan was unlawful*. https://www.amnesty.org/en/latest/news/2020/10/belgium-european-court-rules-deportation-to-sudan-was-unlawful/

Arnaudo, D. (2017). Computational Propaganda in Brazil: Social Bots during Elections. *Computational Propaganda Research Project*, *8*, 1–39. https://ora.ox.ac.uk/objects/uuid:e88de32c-baaa-4835-bb76-e00473457f46/download_file?file_format=pdf&safe_filename=Comprop-Brazil-1.pdf&type_of_work=Working+paper

Bae, P., Lüders, M., Spangenberg, J., Rath-Wiggins, L., & Følstad, A. (2015). Emerging journalistic verification practices concerning social media. *Journalism Practice*, *10*(3), 323–342. https://doi.org/10.1080/17512786.2015.1020331

Barberia, L. G., & Gómez, E. J. (2020). Political and institutional perils of Brazil's COVID-19 crisis. *The Lancet*, *396*(10248), 367–368. https://doi.org/10.1016/S0140-6736(20)31681-0

BBC. (2020a, April 24). Coronavirus: Outcry after Trump suggests injecting disinfectant as treatment. *BBC*. https://www.bbc.com/news/world-us-canada-52407177

BBC. (2020b, June 3). Social media firms fail to act on Covid-19 fake news. *BBC*. https://www.bbc.com/news/technology-52903680

BBC. (2020c, June 24). President Trump calls coronavirus "kung flu." *BBC*.

https://www.bbc.com/news/av/world-us-canada-53173436

BBC. (2020d, October 11). Covid: Brazil's coronavirus death toll passes 150,000. *BBC*. https://www.bbc.com/news/world-latin-america-54496354

Bechmann, A., & O'Loughlin, B. (2020). *Democracy & disinformation: A turn in the debate - KVAB Thinkers ' Report*. https://pure.royalholloway.ac.uk/portal/files/37942977/Final_Report_Dem_Disinfo.pdf

Bennett, W. L., & Livingston, S. (2018). The disinformation order: Disruptive communication and the decline of democratic institutions. *European Journal of Communication*, *33*(2), 122–139.

Berendt, B., Burger, P., Hautekiet, R., Jagers, J., & Pleijter, A. (2020). *FactRank : Developing Automated Claim Detection for Dutch-Language Fact-Checkers*. 1–27. https://people.cs.kuleuven.be/~bettina.berendt/FactRank/

Bevins, V. (2017, September 30). In Indonesia, the 'fake news' that fueled a Cold War massacre is still potent five decades later. *The Washington Post*. https://www.washingtonpost.com/news/worldviews/wp/2017/09/30/in-indonesia-the-fake-news-that-fueled-a-cold-war-massacre-is-still-potent-five-decades-later/

Billiet, J., Opgenhaffen, M., Pattyn, B., & Van Aelst, P. (2018). The battle for the truth. Fake news and disinformation in the digital media world. *KVAB Position Paper, 62 b*. https://www.kvab.be/sites/default/rest/blobs/2127/mw_battlefortruth.pdf

Bode, L., & Vraga, E. K. (2015). In Related News, That Was Wrong: The Correction of Misinformation Through Related Stories Functionality in Social Media. *Journal of Communication*, *65*(4), 619–638. https://doi.org/10.1111/jcom.12166

Boffey, D. (2018, January 8). Belgian government at risk of collapse over Sudan migrants scandal. *The Guardian*. https://www.theguardian.com/world/2018/jan/08/belgium-coalition-government-risk-collapse-sudan-migrants-scandal

Brandtzaeg, P. B., Følstad, A., & Chaparro Domínguez, M. Á. (2018). How Journalists and Social Media Users Perceive Online Fact-Checking and Verification Services. *Journalism Practice*, *12*(9), 1109–1129. https://doi.org/10.1080/17512786.2017.1363657

Brennen, B. (2009). The future of journalism. *Journalism*, *10*(3), 300–302. https://doi.org/10.1177/1464884909102584

Burkhardt, J. M. (2017). History of Fake News. *Library Technology Reports*, *53*(8), 1–33. https://doi.org/10.5860/ltr.53n8

Busari, S., & Adebayo, B. (2020, March 23). Nigeria Records Chloroquine Poisoning After Trump Endorses it for Coronavirus Treatment. *CNN*. https://edition.cnn.com/2020/03/23/africa/chloroquine-trump-nigeria-intl/index.html

Cacciatore, M. A., Anderson, A. A., Choi, D. H., Brossard, D., Scheufele, D. A., Liang, X., Ladwig, P. J., Xenos, M., & Dudo, A. (2012). Coverage of emerging technologies: A comparison between print and online media. *New Media and Society*, *14*(6), 1039–1059. https://doi.org/10.1177/1461444812439061

Catalan-Matamoros, D., & Elías, C. (2020). Vaccine hesitancy in the age of coronavirus and fake news: Analysis of journalistic sources in the Spanish quality press. *International Journal of Environmental Research and Public Health*, *17*(21), 1–15. https://doi.org/10.3390/ijerph17218136

Caulfield, T. (2020). *Does Debunking Work ? Correcting COVID-19 Misinformation on Social Media*. 1–13. https://doi.org/10.2196/19016.13

Cerulus, L. (2018, January 9). Belgian government pulls back from brink in Sudanese migrant crisis. *Politico*. https://www.politico.eu/article/theo-francken-belgian-government-pulls-back-from-brink-in-sudanese-migrant-crisis/

Chitungo, I., Dzobo, M., Hlongwa, M., & Dzinamarira, T. (2020). COVID-19: Unpacking the low number of cases in Africa. *Public Health in Practice*, *1*(September), 100038. https://doi.org/10.1016/j.puhip.2020.100038

Chiu, A. (2020, March 20). Trump has no qualms about calling coronavirus the 'Chinese Virus.' That's a dangerous attitude, experts say. *The Washington Post*. https://www.washingtonpost.com/nation/2020/03/20/coronavirus-trump-chinese-virus/

Christians, C. G., Glasser, T., McQuail, D., Nordenstreng, K., & White, R. A. (2010). *Normative Theories of the Media: Journalism in Democratic Societies*. University of Illinois Press.

Clappaert, E. (2017, August 21). Opgepast voor nepnieuws vermomd als artikels van "Le Soir" en "The Guardian." *VRTNWS*. https://www.vrt.be/vrtnws/nl/2017/08/21/opgepast_voor_nepnieuwsvermomdalsartikelsvanlesoirentheguardian-1-3052069/

Cloots, E. (2020, August 5). De VRT en corona: mag het iets meer zijn? *De Tijd*. https://www.tijd.be/opinie/algemeen/de-vrt-en-corona-mag-het-iets-meer-zijn/10243315.html

Coche, E. (2018a). *Fake News' and Online Disinformation: Case Study -Belgium* (Issue June).

Coche, E. (2018b). "Fake news" en desinformatie in Belgie: weinig zorgen, problemen voor morgen? *Mediaforum*, *6*, 185–189. https://www.ivir.nl/publicaties/

Cochez, T. (2017, May 5). Fake news in Kazachgate-affaire raakt aan essentie van onze democratie. *Knack*. https://www.knack.be/nieuws/belgie/fake-news-in-kazachgate-affaire-raakt-aan-essentie-van-onze-democratie/article-opinion-849073.html

Collard, C. (2014). Bye bye Belgium: Remediating Flemish nationalism in prime time. In *Rethinking History* (Vol. 18, Issue 4, pp. 543–555). Taylor & Francis. https://doi.org/10.1080/13642529.2014.893661

De Coninck, D. (2020, April 26). De bron van een wereldwijd viraal gaande 5g complottheorie: een huisarts in Wilrijk. *De Morgen*. https://www.demorgen.be/nieuws/de-bron-van-een-wereldwijd-viraal-gaande-5g-complottheorie-een-huisarts-uit-wilrijk~b10bd98b/

De Coninck, D., D'Haenens, L., & Matthijs, K. (2020). Forgotten key players in public health: news media as agents of information and persuasion during the COVID-19 pandemic. *Public Health*, *June*(183), 65–66.

De Giorgi, M. (2019). *Journalists Against Disinformation: Defining European journalists' role and self-perception in the conflict against disinformation #tacklingfakenews* [Vrije Universiteit Brussel]. https://doi.org/10.13140/RG.2.2.18336.02562

De Groote, J., & Verelst, K. (2020, April 9). "Tussen democratie en pandemie: spant repressie in tijden van corona de kroon?" *Knack*. https://www.knack.be/nieuws/belgie/tussen-

democratie-en-pandemie-spant-repressie-in-tijden-van-corona-de-kroon/article-opinion-1586351.html

De Ridder, B. (2020). When the Analogy Breaks. Historical References in Flemish News Media at the Onset ofthe COVID-19 Pandemic. *Journal of Applied History*, 1–16. https://doi.org/10.1163/25895893-bja10003

Deckmyn, D. (2016, November 29). Verzonnen interviews, grappen en hoaxes. *De Standaard*. https://m.standaard.be/cnt/dmf20161128_02597453?shareId=4f7ece98b4ca3173ccd59b679&articlehash=AD2C8669F097A5EC5B86841F7D0A574799799701D7DB0DA45B5C52423E22F2DA32BDC18140C23AD220489C234A70B317F42D31225191C9FB3782BD730628CFCB

Delhalle, D. (2017, February 8). *Des médias s'associent avec Facebook et Google pour chasser les fausses infos*. https://www.rtbf.be/info/medias/detail_des-media-verifient-des-informations-que-propagent-facebook-et-google?id=9524988

Deltour, P. (2020, April 10). Een maand coronacrisis: de impact op de (Vlaamse) journalistiek. *VVJ*. https://journalist.be/2020/04/een-maand-coronacrisis-de-impact-op-de-vlaamse-journalistiek

Deuze, M. (2003). The web and its journalisms: Considering the consequences of different types of newsmedia online. *New Media and Society*, *5*(2), 203–230. https://doi.org/10.1177/1461444803005002004

Dewey, C. (2016, November 17). Facebook Fake-News Writer: "I Think Donald Trump is in the White House because of Me." *The Washington Post*.

Donsbach, W. (2012). Journalists' Role Perception. In *The International Encyclopedia of Communication*. https://doi.org/10.1002/9781405186407.wbiecj010.pub2

Dunwoody, S. (2020). Science Journalism and Pandemic Uncertainty. *Media and Communication*, *8*(2), 471–474. https://doi.org/10.17645/mac.v8i2.3224

Egelhofer, J. L., & Lecheler, S. (2019). Fake news as a two-dimensional phenomenon: a framework and research agenda. *Annals of the International Communication Association*, *43*(2), 97–116. https://doi.org/10.1080/23808985.2019.1602782

Encabo, M. N. (1995). The Ethics of Journalism and Democracy. *European Journal of Communication*, *10*(4).

Esterberg, K. (2002). *Qualitative Methods in Social Research*. McGraw Hill.

European Comission. (2018). *A multi-dimensional approach to disinformation.* https://doi.org/10.2759/0156

European Commission. (2014). Special Eurobarometer 419: Public perceptions of science, research and innovation. In *Public perceptions of science, research and innovation* (Issue October). https://doi.org/10.2777/95599

European Commission. (2018). *Flash Eurobarometer 464 - Fake news and disinformation online*. https://doi.org/doi:10.2759/559993

European Commission. (2020). *Joint Communication to the European Parliament, the European Council, the Council, the European and Social Committee and the Committee of the Regions. Tackling COVID-19 Disinformation - Getting the Facts Right*.

https://op.europa.eu/en/publication-detail/-/publication/08c7a6a3-ab40-11ea-bb7a-01aa75ed71a1

Fisher, M., Woodrow Cox, J., & Hermann, P. (2016, December 6). Pizzagate: From rumor, to hashtag, to gunfire in D.C. *The Washington Post*.

Fletcher, R., Cornia, A., Graves, L., & Nielsen, R. K. (2018). Measuring the reach of "fake news" and online disinformation in Europe. *Factsheet Reuters Institute (February)*, 1–10. https://reutersinstitute.politics.ox.ac.uk/our-research/measuring-reach-fake-news-and-online-disinformation-europe

Flick, U. (2014). *An Introduction to Qualitative Research* (5th Edition (Ed.)). Sage Publications.

Galindo, G. (2020, February 4). First case of coronavirus confirmed in Belgium. *The Brussels Times*. https://www.brusselstimes.com/news/belgium-all-news/93361/first-case-of-coronavirus-confirmed-in-belgium/

Galvão, J. (2020). COVID-19: the deadly threat of misinformation. *The Lancet. Infectious Diseases*, *3099*(20), 30721. https://doi.org/10.1016/S1473-3099(20)30721-0

Garcia, L. P., & Duarte, E. (2020). Infodemia: excesso de quantidade em detrimento da qualidade das informações sobre a COVID-19. *Epidemiologia e Servicos de Saude : Revista Do Sistema Unico de Saude Do Brasil*, *29*(4), e2020186. https://doi.org/10.1590/S1679-49742020000400019

Graves, L., & Cherubini, F. (2016). Fact Checking Sites in Europe. *Reuters Institute Digital News Report*. https://ora.ox.ac.uk/objects/uuid:d55ef650-e351-4526-b942-6c9e00129ad7/download_file?file_format=pdf&safe_filename=The%2BRise%2Bof%2BFact-Checking%2BSites%2Bin%2BEurope.pdf&type_of_work=Report

Grinberg, N., Joseph, K., Friedland, L., Swire-Thompson, B., & Lazer, D. (2019). Political science: Fake news on Twitter during the 2016 U.S. presidential election. *Science*, *363*(6425), 374–378. https://doi.org/10.1126/science.aau2706

Guess, A., Nagler, J., & Tucker, J. (2019). Less than you think: Prevalence and predictors of fake news dissemination on Facebook. *Science Advances*, *5*(1), 1–8. https://doi.org/10.1126/sciadv.aau4586

Hanitzsch, T. (2019). Journalistic Roles. *The International Encyclopedia of Journalism Studies*. https://doi.org/10.1002/9781118841570.iejs0029

Hanitzsch, T., & Vos, T. P. (2018). Journalism beyond democracy: A new look into journalistic roles in political and everyday life. *Journalism*, *19*(2), 146–164. https://doi.org/10.1177/1464884916673386

Hao, K., & Basu, T. (2020, February 12). The coronavirus is the first true social-media "infodemic." *MIT Technology Review*. https://www.technologyreview.com/2020/02/12/844851/the-coronavirus-is-the-first-true-social-media-infodemic/

Hayes, A. S., Singer, J. B., & Ceppos, J. (2007). Shifting Roles, Enduring Values: The Credible Journalist in a Digital Age. *Journal of Mass Media Ethics*, *22*(4), 262–279. https://doi.org/10.1080/08900520701583545

Himma-Kadakas, M. (2017). Alternative facts and fake news entering journalistic content production cycle. *Cosmopolitan Civil Societies*, *9*(2), 25–41.

https://doi.org/10.5130/ccs.v9i2.5469

Himma-Kadakas, M., & Palmiste, G. (2019). Expectations and the actual performance of skills in online journalism. *Journal of Baltic Studies*, *50*(2), 251–267. https://doi.org/10.1080/01629778.2018.1479718

HL. (2020, August 24). Viruswaanzin dient klacht in tegen Marc Van Ranst bij de Orde der Geneesheren. *De Morgen*.

Humprecht, E., Esser, F., & Van Aelst, P. (2020). Resilience to Online Disinformation: A Framework for Cross-National Comparative Research. *International Journal of Press/Politics*, *25*(3), 493–516. https://doi.org/10.1177/1940161219900126

IFCN. (2016, November 17). An open letter to Mark Zuckerberg from the world's fact-checkers (including TheJournal.ie). *Thejournal.Ie*. https://www.thejournal.ie/readme/international-fact-checking-network-open-letter-to-mark-zuckerberg-facebook-fake-news-3087057-Nov2016/

IFCN. (2020). *Corona Virus Facts Alliance*. Poynter Institute. https://www.poynter.org/coronavirusfactsalliance/

IPI. (2020a). *COVID-19 Media Freedom Monitoring*. https://ipi.media/covid19-media-freedom-monitoring/

IPI. (2020b, April 2). *COVID-19: Abuse of emergency powers to stifle media grows*. https://ipi.media/covid-19-abuse-of-emergency-powers-to-stifle-media-grows/

IPI. (2020c, May 1). *WPFD 2020: COVID-19 accelerating a global decline in media freedom*. https://ipi.media/wpfd-2020-covid-19-accelerating-a-global-decline-in-media-freedom/

IPI. (2020d, May 8). *New "fake news" law stifles independent reporting in Russia on COVID-19*. https://ipi.media/new-fake-news-law-stifles-independent-reporting-in-russia-on-covid-19/

IPI. (2020e, May 15). *India increasing abuse of laws to harass journalists*. https://ipi.media/india-increasing-abuse-of-laws-to-harass-journalists/

IPI Advocacy Officer Jamie Wiseman. (2020a, April 10). *European media freedom suffers under COVID-19 response*. https://ipi.media/european-media-freedom-suffers-covid-19-response/

IPI Advocacy Officer Jamie Wiseman. (2020b, April 23). *Azerbaijan abuses quarantine rules to jail critical journalists and bloggers*. https://ipi.media/azerbaijan-abuses-quarantine-rules-to-jail-critical-journalists-and-bloggers/

IPI contributer: The Manifold. (2020, August 6). *The Covid-19 crisis highlights Greece's media problem*. https://ipi.media/the-covid-19-crisis-highlights-greeces-media-problem

IPI contributer Monika Martinovic. (2020, May 7). *Pandemic exacerbates repression of independent journalism in Cuba*. https://ipi.media/pandemic-exacerbates-repression-of-independent-journalism-in-cuba/

IPI Correspondent Marton Bede. (2020, September 23). *In Hungary a government rattled by the pandemic finds new ways to suppress independent media*. https://ipi.media/in-hungary-a-government-rattled-by-the-pandemic-finds-new-ways-to-suppress-independent-media/

JHU. (2020). *COVID-19 Dashboard by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (JHU)*. https://gisanddata.maps.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6

John, B. (2020, September 28). The first six months of the pandemic, as told by the fact checks. *First Draft*. https://firstdraftnews.org/latest/the-first-six-months-of-the-pandemic-as-told-by-the-fact-checks/

Johnston, J., & Forde, S. (2017). Churnalism: Revised and revisited. *Digital Journalism*, *5*(8), 943–946. https://doi.org/10.1080/21670811.2017.1355026

Kaminska, I. (2017, January 17). A lesson in fake news from the info-wars of ancient Rome. *The Financial Times*.

Kist, R., & Wassens, R. (2018a, July 15). Russische trollenleger ook actief in Nederland. *NRC*. https://www.nrc.nl/nieuws/2018/07/15/de-russische-trollen-zijn-anti-islam-en-voor-wilders-a1610155

Kist, R., & Wassens, R. (2018b, July 17). Russische trollen ook in België actief. *De Standaard*. https://www.standaard.be/cnt/dmf20180716_03616812?&articlehash=44934CD8BA8ACBE298CA252F779D88C427707A310FA7243BB0B2EF5AF5E6CE529E06C9501254807D613F691DD4DBBE4BCFE3111959DD9F17FB1FA627DE3BE180

Krause, N. M., Freiling, I., Beets, B., & Brossard, D. (2020). Fact-checking as risk communication: the multi-layered risk of misinformation in times of COVID-19. *Journal of Risk Research*, 1–8. https://doi.org/10.1080/13669877.2020.1756385

Kreps, S. E., & Kriner, D. (2020). Medical Misinformation in the COVID-19 Pandemic. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3624510

Kuklinski, J. H., Quirk, P. J., Jerit, J., Schwieder, D., & Rich, R. F. (2000). Misinformation and the currency of Democratic Citizenship. *Journal of Politics*, *62*(3), 790–816.

Le Figaro avec AFP. (2020, May 2). Coronavirus : le gouvernement défend son site contre les «fake news». *Le Figaro*. https://www.lefigaro.fr/flash-eco/coronavirus-le-gouvernement-defend-son-site-contre-les-fake-news-20200502

Le Monde. (2018, January 3). Emmanuel Macron annonce une loi pour lutter contre les “fake news.” *Le Monde*. https://www.lemonde.fr/politique/video/2018/01/03/emmanuel-macron-annonce-une-loi-pour-lutter-contre-les-fake-news_5237300_823448.html

Lecheler, S., & Hinrichsen, M. (2010). Role conceptions of Brussels correspondents from the new member states. *Javnost*, *17*(1), 73–86. https://doi.org/10.1080/13183222.2010.11009027

Lecheler, S., & Kruikemeier, S. (2016). Re-evaluating journalistic routines in a digital age: A review of research on the use of online sources. *New Media and Society*, *18*(1), 156–171. https://doi.org/10.1177/1461444815600412

Leng, Y., Zhai, Y., Sun, S., Wu, Y., Selzer, J., Strover, S., Fensel, J., Pentland, A., & Ding, Y. (2020). *Analysis of misinformation during the COVID-19 outbreak in China: cultural, social and political entanglements*. http://arxiv.org/abs/2005.10414

Lewandowsky, S., Ecker, U. K. H., Seifert, C. M., Schwarz, N., & Cook, J. (2012). Misinformation and Its Correction: Continued Influence and Successful Debiasing.

Psychological Science in the Public Interest, *13*(3), 106–131. https://doi.org/10.1177/1529100612451018

Lichtenstein, A., Ajayi, R., & Egbunike, N. (2020, March 25). Across Africa, COVID-19 heightens tension between faith and science. *GlobalVoices*. https://globalvoices.org/2020/03/25/across-africa-covid-19-heightens-tension-between-faith-and-science/

Longoria, J., Acosta Ramos, D., & Webb, M. (2020, August 27). "An unquestionable truth": Religious misinformation in the coronavirus pandemic. *First Draft*. https://firstdraftnews.org/latest/religious-misinformation-in-the-coronavirus-pandemic/

Lovari, A. (2020). Spreading (Dis)Trust: Covid-19 Misinformation and Government Intervention in Italy. *Media and Communication*, *8*(2), 458–461. https://doi.org/10.17645/mac.v8i2.3219

Macguire, E. (2020, April 5). Anti-Asian hate continues to spread online amid COVID-19 pandemic. *Al Jazeera*. https://www.aljazeera.com/news/2020/04/05/anti-asian-hate-continues-to-spread-online-amid-covid-19-pandemic/

Mayring, P. (2000). Qualitative Content Analysis. *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research*, *1*(2). https://doi.org/http://dx.doi.org/10.17169/fqs-1.2.1089

McLaughlin, E. C. (2020, March 24). Chloroquine and hydroxychloroquine: what to know about the potential coronavirus drugs. *CNN*. https://edition.cnn.com/2020/03/23/health/chloroquine-hydroxycholoroquine-drugs-explained/index.html

Meier, K., & Wyss, V. (2020, April 9). Journalismus in der Krise: die fünf Defizite der Corona-Berichterstattung. *Meedia*. https://meedia.de/2020/04/09/journalismus-in-der-krise-die-fuenf-defizite-der-corona-berichterstattung/

Mellado, C. (2015). Professional Roles in News Content: Six dimensions of journalistic role performance. *Journalism Studies*, *16*(4), 596–614. https://doi.org/10.1080/1461670X.2014.922276

Mena, P. (2018). Principles and Boundaries of Fact-checking: Journalists' Perceptions. *Journalism Practice*, *13*(6), 657–672. https://doi.org/10.1080/17512786.2018.1547655

Miller, J. (2017, June 30). Germany votes for 50m euro social media fines. *BBC*. https://www.bbc.com/news/technology-40444354

Newman, N., Fletcher, R., Kalogeropoulos, A., Levy, D. A. L., & Nielsen, R. K. (2017). *Reuters Institute Digital News Report 2017*. https://reutersinstitute.politics.ox.ac.uk/sites/default/files/Digital News Report 2017 web_0.pdf

Newman, N., Fletcher, R., Kalogeropoulos, A., Levy, D. A. L., & Nielsen, R. K. (2018). Reuters Institute Digital News Report 2018. In *Reuters Institute Digital News*. https://s3-eu-west-1.amazonaws.com/media.digitalnewsreport.org/wp-content/uploads/2018/06/digital-news-report-2018.pdf

Newman, N., Fletcher, R., Kalogeropoulos, A., & Nielsen, R. K. (2019). Reuters Institute Digital News Report 2019. In *Reuters Institute for the Study of Journalism*. https://reutersinstitute.politics.ox.ac.uk/sites/default/files/inline-

files/DNR_2019_FINAL.pdf

Newman, N., Richard Fletcher, W., Schulz, A., Andı, S., & Kleis Nielsen, R. (2020). Reuters Institute Digital News Report 2020. In *Reuters Institute for the Study of Journalism*. https://reutersinstitute.politics.ox.ac.uk/sites/default/files/2020-06/DNR_2020_FINAL.pdf

Nguyen, A., & Catalan-Matamoros, D. (2020). Digital Mis/Disinformation and Public Engagment with Health and Science Controversies: Fresh Perspectives from Covid-19. *Media and Communication*, *8*(2), 323–328. https://doi.org/10.17645/mac.v8i2.3352

Nguyen, H., & Nguyen, A. (2020). Covid-19 Misinformation and the Social (Media) Amplification of Risk: A Vietnamese Perspective. *Media and Communication*, *8*(2), 444. https://doi.org/10.17645/mac.v8i2.3227

Nielsen, R. K., & Graves, L. (2017). "News you don't believe": Audience perspectives on fake news. *Reuters Institute for the Study of Journalism*, *October*, 1–8. https://reutersinstitute.politics.ox.ac.uk/sites/default/files/2017-10/Nielsen%26Graves_factsheet_1710v3_FINAL_download.pdf

Nisbet, M. C., & Fahy, D. (2015). The Need for Knowledge-Based Journalism in Politicized Science Debates. *Annals of the American Academy of Political and Social Science*, *658*(1), 223–234. https://doi.org/10.1177/0002716214559887

Nougayrède, N. (2018, January 31). In this age of propaganda, we must defend ourselves. Here's how. *The Guardian*. https://www.theguardian.com/commentisfree/2018/jan/31/propaganda-defend-russia-technology

Nyhan, B. (2020). Facts and myths about misperceptions. *Journal of Economic Perspectives*, *34*(3), 220–236. https://doi.org/10.1257/jep.34.3.220

O'Sullivan, J., & Heinonen, A. (2008). Old values, new media: Journalism role perceptions in a changing world. *Journalism Practice*, *2*(3), 357–371. https://doi.org/10.1080/17512780802281081

Ogola, G. (2020). Africa and the Covid-19 Information Framing Crisis. *Media and Communication*, *8*(2), 440–443. https://doi.org/10.17645/mac.v8i2.3223

Oxford Analytica. (2020). *Fake News Will Undermine African Response to COVID-19. Emerald Expert Briefings*. https://www.emerald.com/insight/content/doi/10.1108/OXAN-DB253447/full/html

Oyeyemi, S. O., Gabarron, E., & Wynn, R. (2014). Ebola, Twitter, and misinformation: A dangerous combination? *BMJ (Online)*, *349*. https://doi.org/10.1136/bmj.g6178

Parkinson, H. J. (2016, November 14). Click and Elect: How Fake News Helped Donald Trump Win a Real Election. *The Guardian*.

Pickard, V. (2016). Media failures in the age of Trump. *The Political Economy of Communication*, *4*(2), 118–122.

Picone, I. (2017). Hoe is het in België gesteld met het vertrouwen in de pers? *Mediawijs*. https://mediawijs.be/dossiers/dossier-nieuws-en-informatiegeletterdheid/hoe-belgië-gesteld- vertrouwen-pers

Picone, I., & Donders, K. (2020). Reach or trust optimisation? A citizen trust analysis in the

flemish public broadcaster VRT. *Media and Communication, 8*(3), 348–358. https://doi.org/10.17645/mac.v8i3.3172

Pomerantsev, P. (2019). *This is NOT Propaganda: Adventures in the War Against Reality*. Faber & Faber.

Posetti, J., Bell, E., & Brown, P. (2020). *Journalism & the pandemic: a global snapshot of impacts*. https://www.icfj.org/sites/default/files/2020-10/Journalism and the Pandemic Project Report 1 2020_FINAL.pdf

Posetti, J., & Bontcheva, K. (2020). *Deciphering COVID-19 disinformation*. https://en.unesco.org/sites/default/files/disinfodemic_deciphering_covid19_disinformation.pdf

Posetti, J., & Matthews, A. (2018). A Short Guide to History of Fake News and Disinformation. *International Center for Journalists*. https://www.icfj.org/sites/default/files/2018-07/A Short Guide to History of Fake News and Disinformation_ICFJ Final.pdf

PRNigeria. (2020, March 18). Coronavirus: Saudi Suspends Praying in Mosques, Islamic Scholar Reacts. *PRNigeria*. https://prnigeria.com/2020/03/18/coronavirus-saudi-mosques-islamic-scholar/

Quandt, T., Boberg, S., Schatto-Eckrodt, T., & Frischlich, L. (2020). *Pandemic News: Facebook Pages of Mainstream News Media and the Coronavirus Crisis - A Computational Content Analysis [Working Paper]* (No. 2). http://arxiv.org/abs/2005.13290

Raeymaeckers, K., Paulussen, S., & De Keyser, J. (2012). A Survey of Professional Journalists in Flanders (Belgium). In David H. Weaver & L. Willnat (Eds.), *The Global Journalist in the 21st Century* (pp. 141–154). Routledge.

Read, M. (2016, November 9). Donald Trump Won because of Facebook. *New York Magazine*.

Regeerakkoord 30 September 2020. Voor een welvarend, solidair en duurzaam België. (2020). https://www.belgium.be/sites/default/files/Regeerakkoord_2020.pdf

Reporters Without Borders (RSF). (2019). *2019 World Press Freedom Index*. https://rsf.org/en/ranking/2019

Reporters Without Borders (RSF). (2020). *2020 World Press Freedom Index*. https://rsf.org/en/ranking/2020

Ressa, M. A. (2016, October 3). Propaganda war: Weaponizing the internet. *Rappler*. https://rappler.com/nation/propaganda-war-weaponizing-internet

Rodrigues, U. M., & Xu, J. (2020). Regulation of COVID-19 fake news infodemic in China and India. *Media International Australia*. https://doi.org/10.1177/1329878X20948202

Romer, D., & Jamieson, K. H. (2020). Conspiracy theories as barriers to controlling the spread of COVID-19 in the U.S. *Social Science & Medicine*. https://doi.org/10.1016/j.socscimed.2020.113356

Samios, Z. (2020, March 23). The other viral problem in the COVID-19 pandemic: online misinformation. *The Sydney Morning Herald*. https://www.smh.com.au/business/companies/the-other-viral-problem-in-the-covid-19-

pandemic-online-misinformation-20200318-p54bd3.html

Schapals, A. K. (2018). Fake News: Australian and British journalists' role perceptions in an era of "alternative facts." *Journalism Practice*, *12*(8), 976–985. https://doi.org/10.1080/17512786.2018.1511822

Schmid, P., & Betsch, C. (2019). Effective strategies for rebutting science denialism in public discussions. *Nature Human Behaviour*, *3*(9), 931–939. https://doi.org/10.1038/s41562-019-0632-4

Shaw, R., Kim, Y., & Hua, J. (2020). Governance, technology and citizen behavior in pandemic: Lessons from COVID-19 in East Asia. *Progress in Disaster Science*, *6*, 100090. https://doi.org/10.1016/j.pdisas.2020.100090

Spinner, J. (2020). Covering COVID-19: A health check for science journalism. *Gateway Journalism Review*, *49*(357), 4–5. https://link.gale.com/apps/doc/A632691930/AONE?u=43wien&sid=AONE&xid=4da73e25

Stanescu, G. (2020). The importance and role of the journalists during covid-19. Lessons learnd from home journalism. In D. Voinea & A. Strunga (Eds.), *Research Terminals in the Social Sciences* (pp. 105–115). SITECH Publishing House.

Staudenmaier, R. (2020, April 30). World's top coronavirus experts face fame, scorn amid pandemic. *DW*. https://www.dw.com/en/worlds-top-coronavirus-experts-face-fame-scorn-amid-pandemic/a-53294500

Strong, S. I. (2017). Alternative Facts and the Post-Truth Society. *University of Pennsylvania Law Review Online*, *165*(137), 137–146. http://www.pennlawreview.com/online/ 165-U-Pa-L-Rev-Online-137.pdf

Stroobant, J., De Dobbelaer, R., & Raeymaeckers, K. (2018). Tracing the Sources: A comparative content analysis of Belgian health news. *Journalism Practice*, *12*(3), 344–361. https://doi.org/10.1080/17512786.2017.1294027

Tandoc, E. C., Lim, Z. W., & Ling, R. (2018). Defining "Fake News": A typology of scholarly definitions. *Digital Journalism*, *6*(2), 137–153. https://doi.org/10.1080/21670811.2017.1360143

Tardáguila, C. (2019, September 18). Why doesn't Belgium show up on the fact-checking world map? *Poynter Institute*. https://www.poynter.org/fact-checking/2019/why-doesnt-belgium-show-up-on-the-fact-checking-world-map/

The European Commission. (2019). *Standard Eurobarometer 92 Autumn 2019. Public opinion in the European Union* (Issue November). file:///C:/Users/matth/AppData/Local/Temp/eb_92_public_opinion_en-1.pdf

The Lancet. (2020). COVID-19 in Brazil: "So what?" *The Lancet*, *395*(10235), 1461. https://doi.org/10.1016/S0140-6736(20)31095-3

The Times of India. (2020, April 5). People feel 50-80% Covid-19 news on social media "fake": Survey. *The Times of India*. https://timesofindia.indiatimes.com/india/people-feel-50-80-covid-19-news-on-social-media-fake-survey/articleshow/74990141.cms

Tiffen, R. (1989). *News and Power*. Allen and Unwin.

Tiffen, R., Jones, P. K., Rowe, D., Aalberg, T., Coen, S., Curran, J., Hayashi, K., Iyengar, S.,

Mazzoleni, G., Papathanassopoulos, S., Rojas, H., & Soroka, S. (2014). Sources in the News: A comparative study. *Journalism Studies*, *15*(4), 374–391. https://doi.org/10.1080/1461670X.2013.831239

Tsfati, Y., Boomgaarden, H. G., Strömbäck, J., Vliegenthart, R., Damstra, A., & Lindgren, E. (2020). Causes and consequences of mainstream media dissemination of fake news: literature review and synthesis. *Annals of the International Communication Association*, *44*(2), 157–173. https://doi.org/10.1080/23808985.2020.1759443

Valcke, P., Lambrecht, I., & Feci, N. (2018). Country Report: Belgium. In *Monitoring Media Pluralism in Europe: Application of the Media Pluralism Monitor 2016 in the European Union, Montenegro and Turkey.* https://doi.org/10.2870/959900

Van Der Meer, T. G. L. A., Verhoeven, P., Beentjes, J. W. J., & Vliegenthart, R. (2017). Disrupting gatekeeping practices: Journalists' source selection in times of crisis. *Journalism*, *18*(9), 1107–1124. https://doi.org/10.1177/1464884916648095

Van Leuven, S., Deprez, A., & Raeymaeckers, K. (2013). Towards more balanced news access? A study on the impact of cost-cutting and Web 2.0 on the mediated public sphere. *Journalism*, *15*(7), 850–867. https://doi.org/10.1177/1464884913501837

Van Leuven, S., Vanhaelewyn, B., Schelpe, F., & Raeymaeckers, K. (2020). *Corona als kantelpunt in de Vlaamse journalistieke sector: Bevindingen van een survey-onderzoek onder Vlaamse journalisten van 8-19 april 2020.* https://www.ugent.be/ps/communicatiewetenschappen/cjs/nl/onderzoek/rapport-gevolgen-corona-journalisten/at_download/file

Venkatraman, A., Mukhija, D., Kumar, N., & Nagpal, S. J. S. (2016). Zika virus misinformation on the internet. *Travel Medicine and Infectious Disease*, *14*(4), 421–422. https://doi.org/10.1016/j.tmaid.2016.05.018

Verhaeghe, P. P., & Ghekiere, A. (2020). The impact of the Covid-19 pandemic on ethnic discrimination on the housing market. *European Societies*. https://doi.org/10.1080/14616696.2020.1827447

Vlaams Journalistiek Fonds. (2019, March 13). *Factcheck fonds blijft dode letter*. https://www.vlaamsjournalistiekfonds.be/factcheck-fonds-blijft-dode-letter

Vos, T. P., & Thomas, R. J. (2019). The Discursive (Re)construction of Journalism's Gatekeeping Role. *Journalism Practice*, *13*(4), 396–412. https://doi.org/10.1080/17512786.2018.1478746

Wadvalla, B. A. (2020). How Africa has tackled covid-19. *The BMJ*, *370*. https://doi.org/10.1136/bmj.m2830

Waisbord, S. (2018). Truth is What Happens to News: On journalism, fake news, and post-truth. *Journalism Studies*, *19*(13), 1866–1878. https://doi.org/10.1080/1461670X.2018.1492881

Waldrop, T., Alsup, D., & McLaughlin, E. C. (2020, March 25). Fearing coronavirus, Arizona man dies after taking a form of chloroquine used to treat aquariums. *CNN*. https://edition.cnn.com/2020/03/23/health/arizona-coronavirus-chloroquine-death/index.html

Walravens, E., & Cochez, T. (2017, May 4). Fake news vergiftigt publieke opinie rond kazachgate. *Apache*. https://www.apache.be/2017/05/04/fake-news-vergiftigt-publieke-

opinie-rond-kazachgate/

Wang, A. B. (2016, November 16). ‘Post-truth’ named 2016 word of the year by Oxford Dictionaries. *The Washington Post*. https://www.washingtonpost.com/news/the-fix/wp/2016/11/16/post-truth-named-2016-word-of-the-year-by-oxford-dictionaries/

Wardle, C., & Derakhshan, H. (2017). Information Disorder: Toward an interdisciplinary framework for research and policy making. *Report to the Council of Europe*. https://rm.coe.int/information-disorder-toward-an-interdisciplinary-framework-for-researc/168076277c

Wazir, B. (2020, May 21). *Exclusive: Islamophobic disinformation and hate speech has swamped social media during the coronavirus pandemic*. https://www.codastory.com/disinformation/exclusive-islamophobic-disinformation-and-hate-speech-has-swamped-social-media-during-the-coronavirus-pandemic/

Weaver, D.H., & Wilhoit, G. C. (1996). *The American journalist in the 1990s: US news people at the end of an era*. Psychology Press.

WHO. (2020). *COVID-19 WHO African Region External Situation Report 31*. https://apps.who.int/iris/bitstream/handle/10665/335766/SITREP_COVID-19_WHOAFRO_20200930-eng.pdf

Wormer, H. (2020). German Media and Coronavirus: Exceptional Communication—Or Just a Catalyst for Existing Tendencies? *Media and Communication*, *8*(2), 467–470. https://doi.org/10.17645/mac.v8i2.3242

Zarocostas, J. (2020). How to fight an infodemic. *Lancet (London, England)*, *395*(10225), 676. https://doi.org/10.1016/S0140-6736(20)30461-X

Zelizer, B. (1993). Journalists as interpretive communities. *Critical Studies in Mass Communication*, *10*(3), 219–237. https://doi.org/10.1080/15295039309366865

Zhao, X. (2020). How China’s State Actors Create a “Us vs US” World during Covid-19 Pandemic on Social Media. *Media and Communication*, *8*(2), 452–457. https://doi.org/10.17645/mac.v8i2.3187