

Fake News on Social Media: Understanding the factors that influence the credibility of Fake News online.

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“Massive digital misinformation is becoming pervasive in online social media to the extent that it has been listed by the World Economic Forum as one of the main threats to our society.”

Acknowledgments

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Resumo

As redes sociais e o conteúdo não monitorizado e criado pelo próprio utilizador influenciam, sem dúvida, a forma como os consumidores formam opiniões e tomam decisões. As plataformas de redes sociais permitiram a exposição a um número elevado e variedade sem precedentes de notícias falsas, *Fake News*. Nos últimos anos esta tendência tem vindo a acentuar-se. Os consumidores são inundados, no seu quotidiano, com informação, que filtram, mantendo apenas o que consideram útil. A credibilidade é um dos critérios utilizados para filtrar a informação, tornando-se importante entender como os consumidores decidem no que acreditar

O presente estudo pretende, assim, determinar quais os fatores que influenciam a percepção de credibilidade das *Fake News* nas redes sociais. A investigação incluiu artigos contendo *Fake News*, sobre o tema da vacinação COVID-19 em Portugal, divulgados na plataforma *Facebook*. Vários *posts* manipulados, utilizando o mesmo artigo falso, foram apresentados, através de um questionário online, aplicado a uma amostra de 363 indivíduos.

Os resultados revelaram que a percepção de credibilidade de *Fake News*, por parte dos utilizadores de redes sociais, é influenciada pela credibilidade que atribuem às próprias plataformas de redes sociais, e à frequência de utilização das mesmas. A atitude dos consumidores em relação ao tema representado nos *posts*, a vacinação COVID-19, também influenciou. Sentimentos de desconfiança em relação à vacinação contra a COVID-19 e preferência pela imunidade natural revelaram-se determinantes da percepção de credibilidade das *Fake News* nas redes sociais. Atitudes de confiança na eficácia da vacinação e preocupações com a vacinação parecem não ter influenciado os julgamentos de credibilidade. Além disso, a consciencialização para o tema das *Fake News* influenciou negativamente, tanto a percepção de credibilidade de *Fake News* nas redes sociais, como também a percepção de credibilidade das plataformas de redes sociais. A percepção de credibilidade de *Fake News* nas redes sociais também é um bom preditor da intenção de partilha.

Palavras-chave: *Fake News*; Redes Sociais; Credibilidade; Percepção de Credibilidade; Facebook; COVID-19; Vacinação COVID-19

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Abstract

Social media, and the unmonitored and user-created content it offers, undoubtedly influence how consumers form opinions and make decisions. People have been exposed to an unprecedented number and variety of fake news stories thanks to social media platforms, particularly in recent years. Consumers are flooded with information in their daily lives, the majority of which they filter out, keeping only what they find useful. Credibility is one of the criteria used to filter information. Given that credibility strongly influences the impact of a message, it becomes important to understand how consumers decide what to believe

Thus, this study intends to analyze what factors influence the perceptions of the credibility of Fake News on social media. The investigation focused on Fake News articles on the topic of COVID-19 vaccination in Portugal, disseminated on the social media platform Facebook. Several manipulated posts depicting the same Fake News social media article were presented in an online questionnaire, and 363 valid responses were obtained.

Results revealed that consumers perceived credibility of Fake News on social media is influenced by the perceived credibility of social media platforms and the frequency with which consumers use social media. Consumers' attitudes towards the issue depicted on the news post also influenced, with feelings of mistrust regarding COVID-19 vaccination having an effect on the perceived credibility of Fake News on social media, as well as a preference for natural immunity over vaccines. Attitudes of trust in vaccination effectiveness and concerns about the vaccination did not appear to influence the credibility judgments. Additionally, fake news awareness negatively influences both the perceived credibility of fake news on social media and the perceived credibility of social media platforms. Perceived credibility of Fake News on social media is also a good predictor of intention to share.

Keywords: Fake News; Social Media; Credibility; Perceived Credibility; Facebook; COVID-19; COVID-19 Vaccination

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CHAPTER 1

Introduction

Social Media is an inevitable issue when discussing marketing and its dimensions and problematics. With the tremendous growth of digital, social media has emerged as the leading communication channel, as well as information resource, allowing users to connect and share information in a ubiquitous and easily accessible manner (Hong, 2015). It has fully integrated consumers' everyday lives and profoundly altered the way people communicate and relate to each other, and how they do so with organizations and brands, and vice-versa.

As the influence of social media on attitudes and behaviors has continued to rise, organizations and brands have invested more resources and time in this channel (Institute for Public Relations of the University of Florida & DiStaso, 2017).

The information posted on social media shows distinct characteristics when compared to other territories, such as traditional media. Traditional media moderates and curates information, having discrete topic boundaries, and the distinction among topics in online political discussion is blurred (Kim et al., 2016). Content on social media is designed to attract attention from fragmented audiences within limited word counts. Further influenced by their audiences' preferences for more negative and cynical news content (Trussler & Soroka, 2014), information online is more often found to be biased in comparison with traditional media (Bjoergum, 2014), and to contain significantly different sentiments (Soroka et al., 2018).

There is an ongoing academic debate about "information that is presumed to be true at encoding but later on, turns out to be false", purposely spread to deceive people (Ecker et al., 2011, p.570). This concept has been widely referred to as *Fake News* since Donald Trump's 2016 presidential campaign and the exit of the United Kingdom from the European Union, both events having been especially surrounded by the proliferation and intentional instrumentalization of Fake News on social media.

Recently, with the COVID-19 pandemic, experienced globally, it was conspicuous how social media allowed false information to reach an unprecedented, seemingly unstoppable flow. This global pandemic has altered the fact-checking landscape, as rumors, false information, and conspiracy theories have become crucial in the fight against the coronavirus (Dunwoody, 2020). This wave of false information spreading at maximum speed throughout all fringes of society has made bluntly evident how social media comprises a system that is accountable for influencing public opinion, and it is growing swiftly.

Regardless of these latest events that have generated discussion and alarm about Fake News, it has always been a significant topic in communication (McNair, 2017).

The plurality of content and opinions is important and necessary in a democracy. Nonetheless, when it comes to the facts, especially those that are relevant to the public, there must be at least some degree of agreement. The abundance of news in the public sphere in the times of fake news frequently calls into question how events occurred and makes it harder for people to tell the difference between the real world and fiction.

Considering the contextual framework exposed, the investigation of fake news on social media requires a deeper understanding of what leads consumers on social media to deem a piece of information relevant to the point of being influenced and modifying life decisions based on it.

Consumers encounter a great deal of information in their everyday lives, most of which they filter out, retaining only that which they find useful. One of the factors used to filter information is credibility (Wathen & Burkell 2002). The degree to which information is considered to be credible is referred to as information credibility (Fogg et al 2002; Simons 2002; Tseng & Fogg 1999), and it is a reliable indicator of the subsequent actions that an information consumer will do (McKnight & Kacmar 2006).

Given that credibility strongly influences the impact of a message, it becomes important to understand how consumers decide what to believe. The question of what marks a message as credible has been studied within various academic disciplines, including information science, psychology, sociology, marketing, communications, and health sciences.

Literature on credibility comprises several dimensions, attributing message credibility as a result of an interaction of source characteristics, message characteristics, and personal characteristics of the message receiver, which further complicates with the number of intermediaries brought into this equation by social media.

For today's information consumers, determining the reliability of the information existing on social media platforms has become crucial. Despite its importance, little empirical study has been conducted to investigate what factors influence information credibility on social media platforms (Li & Suh, 2015), thus limiting our understanding of the drivers of online information assessment.

Considering this context and problem, it is pertinent to conduct further research to deepen knowledge on this topic and help find tools to question it.

1.1. Research Problematic

Social media has grown to become a crucial platform for several forms of communication, including brand marketing efforts, but the potential influence fake news can have on companies and consumers could be extremely alarming (Berthon & Pitt, 2018).

Fake news and disinformation can introduce misleading beliefs in consumers, subsequently basing their decisions on those false beliefs (Ecker, et al. 2011), while also influencing their attitudes toward firms (Visenti et al., 2019). This issue can also have an impact on corporate reputation (Berthon et al., 2018), as we have seen with the example of boycotts of multinationals like Pepsi and New Balance because of online misinformation (Obada, 2019). And obviously, fake news can also be a financial hazard to companies (Binham, 2019).

Considering how fake news might have such an impact on brands and firms, it becomes urgent for organizations to develop criteria to better assess how consumers evaluate and decide on which information to deem valuable and which information to discard. Since this is one of the factors used to select information (Wathen & Burkell, 2002), how to assess the perceived credibility of content on social media platforms has become a crucial issue for today's consumers.

Thus, conducting further research on this problem is relevant to the field of marketing and marketing discourse, because of its emergence and extreme contemporaneity to a multitude of subjects, and to the technological society we live in. The world pandemic we experienced, and are still experiencing, as a global society has consolidated the emergency of approaching this issue from an operational angle, developing tools and mechanisms that will allow organizations to better understand how to handle this issue.

How do consumers evaluate the credibility of information online, and what factors impact this judgment?

1.2. Main Research Questions

This emphasizes the purpose (pertinence) of this study, as it reinforces the need to investigate what influences consumers' credibility judgment when presented with information online, specifically on social media. What are the factors connected to credibility perception that prove most important?

In consequence, the research question for this dissertation is:

What are the factors that influence the perceived credibility of Fake News, on social media?

This dissertation proposes to conduct further research, by reviewing the existent literature on factors that influence credibility, thus comprising the criteria proposed by authors into a theoretical model to use in the methodology.

The goal of this investigation is to understand:

- (1) how users evaluate fake news credibility on social media, and
- (2) what contextual cues and features (bandwagon effect, source credibility, medium credibility, social media use, fake news awareness, attitude on the issue depicted) impact their credibility judgment.

Further in this study constructs were discovered from the literature that revealed relevant to this investigation. Thus, this study proposes to attempt to understand whether the following constructs are relevant in terms of affecting the perceived credibility of Fake News on social media:

- **Bandwagon Effect:** are consumers' credibility judgments affected by the bandwagon effect (higher or lower numbers of likes/comments/reactions to a certain social media post)?
- **Source Type:** are consumers' credibility judgments affected by the type of source (news media organization or a trusted friend) that shares a fake news post?
- **Social Media Platform:** are consumers' credibility judgments affected by their credibility judgment on the social media platform that shares the information?
- **Frequency of Social Media Use:** are consumers' credibility judgments affected by the frequency with which they use social media?
- **Issue Attitude:** are consumers' credibility judgments affected by their attitude towards the issue depicted?
- **Fake News Awareness:** are consumers' credibility judgments affected by their previous awareness of fake news?

Considering the proliferation of Fake News on social media, and how it grows by the *shares* of users throughout, it is also pertinent to assess if the intention to share, on social media, is influenced by the perceived credibility of fake news.

1.3. Structure of the Study

For organizational purposes, this study is sectioned into different chapters.

First, there is an introduction and contextualization of the theme, followed by a literature review exploring the main concepts of the subject under analysis, as well as the formulation of the research hypotheses that will be later tested.

The third chapter will focus on a description of the methodology applied, as well as the scales of reference used to measure and validate the concepts under investigation, and the structure of the approaches used for information gathering.

In the fourth chapter, the analysis of the data retrieved from the survey will be developed. Starting with an evaluation of the reliability of the scales used to measure the variables, followed by the hypotheses testing process.

Finally, the research results will be discussed, and the conclusions of the study presented, as well as the managerial implications, the limitations of the research, and suggestions for future research.

CHAPTER 2

Literature Review**2.1. Social Media**

Kotler and Keller (2012) distinguished social media into three pivotal platforms: “online communities and forums, blogs, and social networks” (Kotler and Keller, 2012, p.562). With social media, a paradigm change happened, from individual to collective, where knowledge and wisdom shared are leveraged (Berthon et al., 2012).

Consequently, social media has expanded the territory in which marketing efforts potentially reach customers, more efficiently and cost-effectively, by quickly connecting millions of consumers. (Trusov et al., 2009).

Social media platforms have given businesses new opportunities to collaborate in more efficient and creative ways, with their customers (Culnan et al., 2010). Allowing for an interpersonal connection between brands and customers, enabling marketers to take advantage of this opportunity to advertise their products and services on online channels (Castronovo and Huang, 2012).

In this enhanced relationship, social media has provided, customers increase value when creating content and can even impact purchase decisions by using word-of-mouth interactions. (Sashi, 2012). Thus, it has become more difficult for brands and companies to control their relationship with consumers, as they are now driving the conversation on social networks, taking advantage of the immediacy and reach provided (Baird & Parasnis, 2011).

2.1.1. Information on Social Media

When compared to other channels (specifically traditional media) social media information has distinct characteristics. Traditional media edits and curates information, whereas internet political conversation doesn't always make a clear distinction between topics. (Kim et al., 2016). As User Generated Content - media content generated by users and posted online (Kaplan & Haenlein, 2010) - has established itself as the primary change in how people consume (Ye et al., 2011) and has developed into a widespread method of communication for both businesses and consumers (Liu et al., 2010).

Content on social media is designed to attract attention from fragmented audiences within limited words. Further influenced by their audiences' preferences for more negative and cynical news content (Trussler & Soroka, 2014), information online is more often found to be biased in comparison

with traditional media (Bjoergum, 2014), and to contain significantly different sentiments (Soroka et al., 2018).

Social media is increasingly becoming news services, as news websites use their social networking pages to publish their content, “the media create new paths to reach the public, and journalists gain a new lease of life exposure where the professional domain, sometimes, is diluted with the personal” (Rodrigues, 2011, p. 30), so these days, people are no longer limited to traditional media to access the news. Through social networks, the mass media have acquired powerful instruments to disseminate information.

Additionally, heavy social media consumers also appear to be incidentally exposed to fake news at higher rates than the general population (David Lazer et al., 2018). Data shows that these individuals were constantly engaged in selective exposure behavior and were also far less likely to seek fact-checking information.

Social media and the unmonitored and user-created content it provides certainly have an impact on how consumers formulate opinions and make decisions.

2.2. Fake News

2.2.1. Definition and Background

Fake news has been defined as “news articles that are intentionally and verifiably false and could mislead readers” (Alcott, 2017, p.213). Misinformation can be defined as information that is initially presumed to be true but later on turns out to be false (Ecker et al., 2011). This is not the first time that fake news has appeared in our culture, the veracity of news has always been called into doubt. (Mohammed, 2012). Even before the rise of the Internet, some newspapers were known for their biases and potentially distorted reports (Gaziano, 1986). Rumor and false stories have most likely been around “as long as humans lived in groups where power matters” (Burkhardt, 2017, p.5). For ages, the capacity to influence what individuals know has been regarded as a valuable quality. (Burkhardt, 2017).

Nonetheless, the current issue of fake news, spread primarily through social media, became increasingly important during the 2016 presidential election in the United States (Alcott, 2017; Barthel et al 2016; Cerf, 2016). Despite having always been a fundamental part of communication (McNair, 2017), fake news has been at the center of an ongoing academic debate since the expression was popularized during Donald Trump’s presidential campaign. People had never been exposed to such a massive number and diversity of fake news stories before, or at least hadn’t been aware of it.

However, regarding facts, especially those that are relevant to the public, there must be at least some degree of agreement. In a democracy, it is critical and crucial to have a diversity of ideas and viewpoints. The abundance of news in the public domain, during the age of fake news, frequently

calls into question how events occurred, and makes it harder for people to tell the difference between what's real and what's not. Unfounded rumors and absolute lies are consumed by audiences just as much, if not more so, than real, thoroughly researched content as journalism moves from the print medium to the networked online arena (Zaryan, 2017).

2.2.2. Fake News and Advertising

Economic incentives in the twenty-first century have enhanced the drive to spread false information to the public. Instead of government funding, advertisements now support the internet. The principal objective of advertising is to reach as many consumers as possible with information about a product. Advertisers will pay a website owner for their advertisements to be visible on their website, just as they would do with a newspaper to print advertisements. Popular websites are desirable to advertisers because they get big numbers of visitors. The potential for increased sales grows with the number of consumers exposed to the advertised goods. The charge that advertisers pay to website owners encourages them to continue producing content that will bring in more visitors by rewarding them for posting well-liked information (Burkhardt, 2017).

Advertisers are more concerned with the number of people who could potentially come in contact with their products, instead of the accuracy or truth of the information on the page where the advertisement appears. Unfortunately, websites with dramatic headlines or suggestive material are frequently visited in large numbers, which presents an advertising opportunity. Some advertisers will take advantage of people's desire for the sensational by paying authors of popular material without taking into account the site's actual content. Anything can be reported on the internet as long as it gets a lot of traffic. This is how fake news is monetized, giving authors enticements to be sensational instead of accurate. Most startling news has the drawback of either not always being based on fact or having those facts manipulated in some way to make the story appear to be something it is not. Sometimes it is based on absolutely no information (Baum & Lazer, 2017).

2.2.3. Efforts being conducted by Social Media platforms to tackle Fake News

Social Media platforms have recognized this issue and conducted efforts to try and mitigate it.

Several fact-checking initiatives have been developed (Graves, 2016; Lowrey, 2017), but according to some studies (Wintersieck, 2017), fact-checking only works when it is presented at the time of news consumption (Shao et al, 2016). News articles, especially on the internet, have a short "shelf life" and by the time the results of fact-checking are shared, most people have already read the article and processed the fake news.

Twitter's efforts have mostly focused on the display of fact-check tags on dubious tweets, along with a message encouraging users to open links to articles and read them before sharing

(Combating Online Racist Abuse: An Update Following the Euros, 2020). The platform has also banned public figures that are known for spreading disinformation and inflamed discourse, as was the case with former US President Donald Trump, after the January 2021 attack on the US Capitol (“Permanent Suspension of @realDonaldTrump,” 2021). However, the company doesn’t have a transparent blocking policy founded on a solid fact-checking policy.

Facebook has taken a public stance to ensure all its users have access to accurate information and is committed to removing harmful content regarding the COVID-19 pandemic. Using a combination of technology and human review, it relies on third-party fact-checkers (certified by the International Fact-Checking Network) to flag problematic content and removes posts that don’t pass the tests. This approach nevertheless was proved to be ineffective and later removed (Meiler, 2017).

Facebook is also looking into ways to provide readers with more context for stories so they can choose what to read, trust, and share more responsibly. It is also looking into ways to provide readers with access to more perspective on the subjects they're reading. However, ultimately, the company utilizes user comments to flag posts as fake news.

2.2.4. The case of COVID-19 *infodemic*

Disinformation about COVID-19 appears to be an exemplary case, due to the volume and variety of misleading or inaccurate news stories that have been reported, as well as how they have affected the public (Ceron et al, 2021). Recently, with the COVID-19 pandemic, experienced globally, it was conspicuous how social media allowed false information to reach an unprecedented, seemingly unstoppable flow.

The World Health Organization (WHO, 2020) even proposed the neologism *infodemic*, to describe this issue and its risks. Director-General of the World Health Organization (WHO) affirmed at a gathering of foreign policy and security experts in Munich, that the world wasn’t just battling a pandemic, but also an *infodemic*, referring to fake news as “spreading faster and more easily than this virus.” (The Lancet Infectious Diseases, 2020). According to WHO (WHO, 2020), an *infodemic* describes the overabundance of information on the virus that has made it possible for rumors, disinformation, and misinformation to spread, making it challenging to find a solution in the health emergency.

This wave of false information spreading at maximum speed throughout all fringes of society has made bluntly evident how social media comprises a system that is accountable for influencing public opinion, and it is growing swiftly. Considering this context and problem, it is pertinent to conduct further research to deepen knowledge on this topic and help find tools to combat it.

Even though fake news is not a novel issue, the ability to spread so quickly and with such a wide global reach through technology is unparalleled. Fake news subsists “in the same context as real

news on the internet” (Burkhardt, 2017, p.8). Identifying what is fake and what is real seems to be the problem.

The dissemination of fake news on social media is considered to be a major trigger of vaccine hesitancy (Aquino et al., 2017; Dube, Vivion, & MacDonald, 2015; Jolley & Douglas, 2014; Smith & Marshall, 2010). The widespread dissemination of false information about Covid-19 may be attributed to the scientific community's and politicians' early lack of understanding of the virus. Particularly in a situation where people have been seeking immediate and reassuring answers on the SARS-CoV-2, the confusion created by the abundance of news across media may have encouraged misinformation and a lack of trust in scientific data (Tagliabue, 2020). Public celebrities and politicians have also contributed to the spread of false news by providing, at times, contradicting information, as shown in the dispute surrounding the wearing of masks in France (Hassenteufel, 2020). The false information about Covid-19 vaccinations, which is supported by conspiracies (such as economic interests) and safety rumors, is particularly problematic (Puri et al., 2020).

Misinformation and false beliefs may make people less likely to accept vaccination advice from political and health authorities. According to several studies, fake news is a major factor in vaccine hesitancy, which is defined as the delay in accepting or refusing immunization services despite their availability (Carrieri et al. 2019; Boardbent, 2019; MacDonald, 2015). According to a global study conducted in 19 different nations, there are significant differences in the percentages of people who are reluctant to receive the SARS-CoV-2 vaccination, ranging from 11.4% in China to 45.1% in Russia (Lazarus et al., 2015). It's critical to lessen the effect of false information on people's decisions to forego vaccination in the context of the COVID-19 pandemic.

2.3. Credibility

In their daily lives, consumers encounter a lot of information, most of which they filter out and only keep what they find useful. One of the criteria to do so is credibility (Wathen & Burkell 2002, p.134). Credibility is the degree to which someone perceives a piece of information to be true. It is a multi-dimensional concept that provides a way for the receiver of the information to evaluate the source or transmitter of the information. This assessment reflects the receiver's inclination to attribute veracity and substance to the information (Hovland et al. 1953).

In their article examining the elements of computer credibility, Tseng and Fogg (1999) argue that credibility, is defined as the extent to which one perceives information to be believable (Fogg et al 2002; Simons 2002; Tseng & Fogg 1999). It is not an objective quality of the information itself but ultimately a perception of the user and is a strong predictor of an information consumer's further action (McKnight & Kacmar, 2006).

According to several authors (Appelman & Sundar, 2016; Li, 2015; Keshavarz, 2020), there is a wide variety of research, from different perspectives, about the use and impacts of social media. However, the literature on credibility and information credibility evaluation on social media is limited and suffers from a lack of cohesion among academics (Appelman & Sundar, 2016).

Determining credibility in the online world is frequently far more difficult than in earlier media contexts due to "the multiplicity of sources embedded in the numerous layers of online dissemination of content" (Sundar, 2008, p.74). Because of this difficulty, two distinct issues arise: the absence of a clear definition and a vague mechanism for determining credibility at various levels (Appelman & Sundar, 2016).

Despite this concern, this dissertation will consider literature focusing on users' evaluations and perceptions of social media information.

The concept of credibility has been studied along source, message, and media, and the vast majority of new media literature depends on these dimensions (Metzger et al., 2003). These models are based on the notions first suggested by Hovland (1951; 1953). Likewise, selected studies on social media credibility fall into the same three categories. Because credibility is considered a multi-dimensional concept, only multi-item measures can accurately capture it. (Eisend, 2006).

3.2.1. Message Credibility

Message credibility, as defined by Appelman & Sundar (2016, p.65) is "an individual's judgment of the veracity of the content of the communication". The media-specific literature, however, suggests it comes under the general concept of news perceptions (Sundar, 1999). Consumers' perceptions of message credibility could, presumably, affect the way they make subsequent opinions and decision-

making. Studies have repeatedly shown that people who see the same message can judge its credibility differently (e.g., Hovland & Weiss, 1951).

Sundar and Appelman (2016) define message credibility, particularly in the framework of news, to be measured by requesting participants to rate how well the adjectives accurate, authentic, and believable, describe the content.

3.2.1.2. Cognitive and Social Heuristics

The previous distinction of credibility into three categories – source, medium, and message – has been altered by social media, introducing a more complex framework. Media credibility, the channel transmitting the message, is not only limited to the original news platform, anymore. Information-sharing behaviors on social network sites and news media sites, facilitated by the prevalence of “social buttons” (Gerlitz and Helmond, 2013), offer additional cognitive heuristics for credibility evaluation. The original news organization’s credibility, the intermediary platform (e.g. Facebook), and the intermediary sender (the individual, group, or page) actively sharing the news story are factors that may affect credibility (Shen et al., 2019).

Several studies have consistently demonstrated that consumers rarely perform any evaluation behaviors to verify the credibility of online information (Metzger, 2007). Instead, users utilize cognitive and social heuristics to make quick decisions about the credibility, utility, and quality of information (Fogg et al., 2003; Sundar 2008; Metzger et al., 2010).

Sundar (2008) demonstrated in his study of youth’s assessment of credibility that surface features of the interface - which was referred to as technology affordances - had a profound influence on young people’s judgment of credibility. The technology affordances in online media activated cognitive heuristics (mental shortcuts or judgment rules for making quick inferences) to impact people’s judgment of credibility by giving auto-generated cues (design features of technologies that highlight the underlying affordances and serve as triggers for heuristics) or markers on social media, provided by system-generated metrics, such as the number of followers (Sundar, 2008; Westerman et al., 2012, 2014; Hu, 2015).

Several studies have shown consistent evidence for these effects, *Bandwagon* heuristic is one of the many heuristics (mental shortcuts) that is proposed by Sundar et al (2008). Bandwagon heuristic is triggered when a person perceives that something is popular or good, when a large group of people agreed on it, which leads to quick evaluations of the statement without the scrutiny of the content. This heuristic has an impact on the perceived credibility of online information (Sundar et al. 2007).

Knobloch-Westernwick et al. (2005), by asking participants to select and read news articles with different recommendation ratings, found that higher-rated articles were selected more often. In the health domain, Lee and Sundar (2012) revealed that users would perceive a Twitter account with a

greater number of followers as a more trustworthy source for information regardless of whether the account owner is a health professional.

Audience members' bandwagon perceptions — their perceptions that people in general support or oppose a message — are thought to be affected by cues about other people's beliefs. (Xu, 2013). In social media, and specifically Facebook, these Bandwagon cues are provided by elements such as reactions (likes and emoji reactions) and comments on posts.

Online comments and perceived credibility have been proven to be positively related (Kim, 2015). People frequently consider others' comments as a public opinion cue for evaluating information credibility (Walther et al. 2010). To judge the credibility of an online reviewer, if customers see a lot of other people endorsing them, they use the bandwagon heuristic to judge the reviewer as credible (Sundar et al., 2008). Comments associated with a message are expected to alter how individuals perceive how the message influences others, since they can serve as examples of how people generally feel about the message.

Aside from direct commentary, social media also offers indirect opinion cues regarding audiences' attitudes regarding a comment (Walther & Jang, 2012). For instance, the number next to a comment shows how many people like the post (Peter et al., 2014). With Facebook's reaction emojis, users can express their approval or disapproval of a post or comment by using positive feedback (such as "like" or "love") or negative feedback (such as "sad" and "mad"). As a result, emojis provide a more thorough means to convey audience attitude than other subliminal opinion indicators (Leong & Ho, 2021).

Lu and Sun (2021) examined whether and how audience members' psychological responses to posts and vaccine reluctance are influenced by user-generated comments and reaction emojis on Facebook posts, promoting the COVID-19 vaccine. Concluding that anti-vaccine comments increased audience reactivity and COVID-19 vaccine skepticism.

Therefore, the relationship between bandwagon cues, such as online comments and reactions (likes) and perceived credibility has proven to be positively related (Kim, 2015), and the proposed hypothesis is developed as follows:

H1: Bandwagon effect is positively related to the perceived credibility of Fake News on social media.

3.2.3. Source Credibility

The origins of most media credibility measures come from source credibility (Metzger 2003). Literature on source credibility demonstrates that "credible sources are more persuasive than sources with low credibility" (Ohanian, 2013, p.42). More behavioral conformity is induced by highly credible sources than by less credible ones. (Ross 1973; Woodside and Davenport, Jr. 1974, 1976). But it's crucial to understand that credible sources aren't always more effective than less reputable ones. In particular, a less credible source might persuade more effectively than a highly reputable source when the audience is already receptive to the message (Sternthal, Dholakia, and Leavitt 1978).

Within the communication field, this construct was originally used to measure audiences' attitudes toward mass media sources (Hovland, Janis, & Kelley, 1953). People were more susceptible to accepting the conveyed information from a source with more credibility (Berlo et al., 1969).

The source credibility model resulted from the breakthrough study by Hovland, Janis, and Kelley (1953). The factors influencing the perceived credibility of the communicator were investigated, leading to the conclusion that two factors underline the concept of source credibility: "the extent to which a communicator (source) is perceived to be a source of valid assertions, that is the perceived level of knowledge, skills, and experiences of the source to make valid arguments" – its expertise – and "the degree of confidence in the source's intent to communicate the assertions it considers most valid" - its trustworthiness – which emphasizes the intention of the source to provide unbiased and truthful information (Hovland et al., 1953, p. 636). The researchers discovered that individuals rejected information from "untrustworthy" sources during the experience. This study came to the intriguing result that people seemed to remember lies better than truths.

Decades of credibility research build up on these notions that the reputation of the source is an important credibility heuristic (Metzger et al., 2010), and that source credibility resides primarily in the trustworthiness and expertise of the source itself (Tseng and Fogg, 1999). Users are inclined to transfer the reputation of the source (companies as well as news organizations) to the content (Metzger et al., 2010).

Syn and Kim (2013) addressed the impact of information sources on users' credibility perceptions. Their paper discussed how credibility on Facebook affects the activities related to information generation and usage by users, concluding that even though users perceive information (in the health sector) as unreliable, they still access them to find information.

According to Sterret et al. 2018 (Media Insight Project), the individual who shares an article on social media sites like Facebook has a bigger influence on whether people trust what they see, more than if the news article was produced by a news organization. The results of this study show that when consumers see an article posted by someone they trust, but authored by an anonymous media source, they are more likely to believe it. As opposed to when they encounter an identical article posted by

someone they do not trust, even though it appears to be from a reputable media source. People are more inclined to tell their friends about a news source when they see a post from someone they trust, rather than someone they don't. If the same story is shared by someone they trust, people are more likely to believe it was well reported, contained a variety of points of view, and got the facts right. The truth of the information is frequently validated by the social proximity with the sources, leading people to believe it without checking, and accept the news item's popularity as proof of its credibility (Lokot & Diakopoulos, 2016).

And so, distinguishing the type of source becomes relevant to understand how it relates to the perceived credibility of Fake News on social media. Thus,

H2: *News from News Media Organizations have similar effects on perceived credibility of Fake News on social media, as those shared by a trusted individual.*

3.2.4. Medium Credibility (Social Media Platforms)

The criteria for credibility and the predictors of credibility may depend on the receiver's perspective on the medium (Newhagen and Nass, 1989). And so, another dimension is added to the concept when information is mediated by machine technology- such as television but also the current social media scenario. Among the first researchers to examine media credibility as a novel construct were Carter and Greenberg (1965). Judgments about media credibility are different from judgments about general credibility because of the potential for various dimensions of media to be confounded.

Previous studies on media credibility have assisted researchers in understanding the relative credibility of digital media as a source of information when compared to traditional platforms (Chung, Kim, & Kim, 2010; Metzger et al., 2003).

Mediated communication is complicated because the source, message, and medium are often difficult to separate. Mass-mediated communication is embedded in its medium (Appelman and Sundar, 2016). Media credibility, therefore, needs to be defined and measured differently than general credibility; it needs to consider the potential for the credibility of the source, medium, and message to be confounded.

In addition, where the information is published can also influence credibility. Metzger et al. (2010) found that some media platforms are viewed with more skepticism because of their open editing structure (e.g. Wikipedia). By allowing users to self-publish and share without a central gatekeeper, social media sites such as Facebook and Twitter evoke a similar level of skepticism among Internet users (Kasra et al., 2018). News organizations are likely perceived as having more expertise than an individual in producing online news stories (Flanagin and Metzger, 2007). Therefore,

H3: *The credibility of Fake News on social media varies according to the credibility of the platform.*

3.2.4.1. Social Media Use

The process of assessing information credibility is determined by users' perspectives, which may be influenced by a variety of user attributes, such as technology proficiency (Ahmad, et al 2010; Kim, 2012; Lucassen et al., 2013; Zulman et al., 2011).

Bhaskaran, Mishra & Nair (2017) explain how fake news stories have the capacity to pose as real news stories. The low levels of media literacy among those who are more familiar with traditional media outlets and the associated credibility notions are frequently exploited by the authors of fake news.

Familiarity and expertise with online platforms, or “digital media literacy,” are considered to inform users’ credibility assessment (Choi and Stvilia, 2015). Internet skills generally refer to users’ ability to use various online media effectively (Hargittai and Hsieh, 2012). Such skills enable users to correctly identify cues such as source, intermediary, and bandwagon in order to make credibility assessments (Choi and Stvilia, 2015).

Additionally, heavy social media consumers also appear to be incidentally exposed to fake news at higher rates than the general population (Lazer et al., 2018). Data shows that these individuals were constantly engaged in selective exposure behavior and were also far less likely to seek fact-checking information. Therefore,

H4: *The frequency with which users use social media platforms influences the perceived credibility of Fake News on social media.*

3.2.4.2. Issue Attitudes

Finally, confirmation bias is a well-established finding in the context of credibility judgment (Knobloch-Westerwick et al., 2015), in that people are more likely to perceive something as credible if it confirms their existing beliefs and opinions. This confirmation bias is probably even more pronounced for information related to politics or current events (Metzger et al., 2010).

Research further demonstrates that people favor information that confirms their preexisting attitudes (selective exposure), find information that supports their beliefs to be more persuasive than information that contradicts them (confirmation bias), and are more likely to accept information that makes them feel good (desirability bias). The fact-checking of a specific Fake News article might not be accepted due to prior partisan and ideological convictions.

Additionally, research shows that people favor information that confirms their preexisting beliefs (selective exposure), find information that supports their beliefs to be more persuasive than information that contradicts them (confirmation bias), and are more likely to accept information that

makes them feel good (desirability bias). Prior political and ideological attitudes may hinder fact-checking of a particular fake news article from being accepted (Lazer, 2018).

Metzger et al. (2010), in a study conducted regarding credibility opinions and information credibility assessment while searching for information online, concluded that participants revealed that once they discovered information that supported their own beliefs, they stopped searching. Concluding that participants seem to use selected filters to help them assess the credibility of information they encountered online. According to theories of motivated reasoning (Kunda, 1990), people often accept information that is congruent with their pre-existing ideas and draw the conclusions they want to believe.

Other studies are also learning that internet users frequently choose content that reflects their attitudes and opinions, and that people tend to evaluate information that is compatible with their attitudes more highly than discordant information (Fischer, Jonas, Frey, & Schulz-Hardt, 2005; Johnson, Zhang, & Richard, 2008).

Additionally, when looking for information online, the inclination to be biased toward attitudinally consistent information may increase, since time and motivation act as constraints on users' abilities to process and assess all the material encountered in a normal search (Fischer et al., 2005).

An experimental study conducted after the 2017 Italian Elections, also exposed the role of confirmation bias in the decision to share. Confirmatory information was accepted even when it contained manifestly incorrect allegations, while unfavorable information was ignored, further exacerbating group polarization (Vicario et al, 2017).

Regarding fake news and vaccination, research has established the association between the two, confirming a connection between belief in Covid-19 conspiracies and a rise in vaccine hesitancy. Therefore,

H5: Higher levels of Pro-attitude towards the issue depicted positively influence the perceived credibility of Fake News on social media, when compared with lower levels of pro-attitude.

3.2.4.3. Intention-to-Share

Intention to share is defined by Lee & Ma (2012) as the degree to which an individual intends to share news items. Sharing behavior — specifically, intention to share — is among the most important and widely studied phenomena in social media research and is particularly relevant to news dissemination on social media.

Several investigations have been conducted on social media sharing. This is directly related to the propagation of news on social media (Lukowicz and Strzelecki, 2020). According to some studies, people tend to share information that they view as significant or personal. (Vitak and Kim, 2014). Consequently, this behavior can be considered to have significant implications for the level of information verification. Research suggests that social media users commonly share news stories on issues that are personally important (Vitak & Kim, 2014), the news is in line with the ideological position taken by the user in contrast to what would likely happen in different circumstances, the receiver in this situation is unlikely to check the credibility of the source or assess the information critically. Thus arguing that news received through social media significantly impact succeeding decisions to spread such information.

H6: *The higher the perceived credibility of fake news on Social Media the higher the intention to share.*

3.2.4.4. Fake News Awareness

Bulgurcu, Cavusoglu, & Benbasat (2010) define Fake News Awareness as the consciousness of a social media user that fake news exists and may be present in their network.

Fake news awareness and social media credibility function as a measure of authority for the user. It can be argued that individuals who are more aware of fake news are more suspicious of social media's credibility.

Some people are more capable of detecting fake news than others (Flanangin and Mezger, 2007). Similarly, because of their skills and experience, social media users may have various levels of expertise regarding fake news.

When a news organization warns that some information appears to be false and should not be believed, some individuals will simply ignore the item and neglect to consider how it originated. But more advanced users, invested in the subject of fake news and determined to detect and report inconsistencies, will seek out additional sources of information to better comprehend this phenomenon (Cooke, 2017). These users are more aware of the prevalence of fake news and find it easier to detect. However, if a user is fully ignorant about fake news, they are unlikely to take any measures to verify the material read online. By verifying information, an individual proves to be aware of the possible existence of fake news. People who are aware of fake news are more likely to put in

the effort to check the source of information than those who are less capable of differentiating accurate information from false.

And so, it is argued that individuals with higher levels of fake news awareness tend to be more skeptical about the credibility of fake news (Torres et al. 2018).

H7(a): Fake news awareness negatively influences perceived credibility of fake news on social media.

H7(b): Fake news awareness negatively influences perceived credibility of social media platforms (medium).

To summarize, the proposed hypotheses are:

H1: Bandwagon effect is positively related to the perceived credibility of Fake News on social media.

H2: News from News Media Organizations have similar effects on perceived credibility of Fake News on social media, as those shared by a trusted individual.

H3: The credibility of the social media platform is positively related to the credibility of Fake News on Social Media.

H4: The frequency with which users use social media platforms influences the effects of medium credibility on perceived credibility of Fake News on social media.

H5: Higher levels of Pro-attitude towards the issue depicted positively influence the perceived credibility of Fake News on social media, when compared with lower levels of pro-attitude.

H6: The higher the message credibility the higher the intention to share.

H7(a): Fake news awareness negatively influences perceived credibility of fake news on social media.

H7(b): Fake news awareness negatively influences perceived credibility of social media platforms (medium).

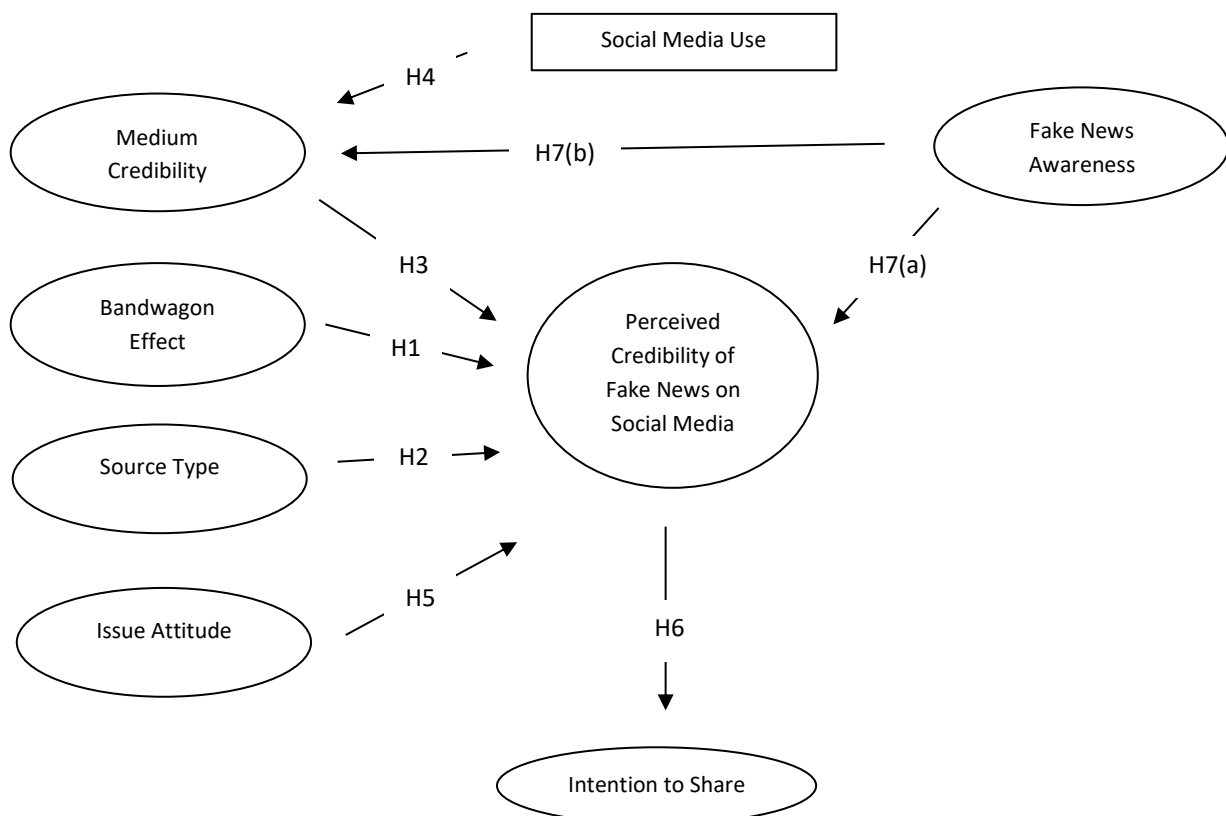


Figure 1 - Research Model

CHAPTER 3

Methodology

This investigation aims to produce general conclusions by testing the proposed hypothesis based on the literature.

To assess how consumers evaluate fake news credibility online and what contextual cues and features impact their credibility judgment, and how this impact influences intention to share, quantitative research will be conducted to enable quantitative predictions.

The questionnaire survey method was chosen to test the proposed hypotheses.

This type of research was chosen to define a clearer relationship among the studied variables: by having a larger number of respondents, it is possible to generalize the answers and analyze patterns.

3.4. Data Collection**3.4.1. Questionnaire Development**

The questionnaire was designed, and the data collected in Qualtrics Survey Software.

The questionnaire was divided into several parts and questions were asked in a random order to avoid creating any bias.

Since this study aims to investigate Fake News on social media, focusing on Facebook, first, a question was asked about whether the respondent had a Facebook account, for those who answered “No”, the questionnaire ended. This was followed by a “Yes” or “No” question enquiring if respondents usually read news articles on Facebook.

Next, since this study focuses on the dynamics observed on social media during the covid-19 pandemic, respondents were asked some questions regarding their attitude toward the issue depicted. As previously established, this topic has drawn much attention to the problem explored in this dissertation, having identified a particularly severe phenomenon of disinformation and fake news proliferation on social media, during the pandemic. Thus, it is pertinent to use this theme as the topic for the information provided to analyze the factors that influence the credibility in a message, on social media.

Since this data collection takes place in Portugal it is pertinent to evaluate how this issue affected Portuguese consumers. The pandemic caused changes in Portuguese information consumption habits, says a study of the network information flow in the first lockdown period (March and April 2020), conducted by CIES-Iscte, OberCom and MediaLab investigators.

After these questions, participants were presented with a manipulated social media post, which depicted a piece of Fake News regarding the above-mentioned topic of COVID-19 vaccines.

In order to measure the dimensions considered in the hypothesis – Bandwagon effect; Source Credibility; Medium Credibility – five different manipulations were created, which were then presented randomly to each participant. Each participant was exposed to only one manipulated post.

Following the exposure to the manipulated post, participants answered several control questions in order to assure overall data quality, followed by questions that intended to measure participants' intention to share the post and perceived credibility of both message and medium, and their perception of their own Fake News Awareness.

The questionnaire concluded with the collection of some basic demographic information such as age, gender, education level, and employment status, as well as some questions regarding the social media use (specifically Facebook use) of the respondent.

3.4.2. Data Measurement and Scales

To measure each of the variables of the model, the questions on the questionnaire were developed based on scales from the literature. Below, each scale is associated with its author and the respective variable (Appendix I).

Table 1 - Measurement Scales

Variable	Scale's Author	Nº. of Items
Issue Attitude	Danabal et al (2021)	13
Social Media Use	Ellison et al (2007)	6
Fake News Awareness	Bulgurcu, Cavusoglu, & Benbasat (2010), adapted by Torres et al. 2018	8
Intention to Share	Lee and Ma (2012), adapted by Torres et al. (2018)	3
Credibility*	Flanagin and Metzger (2007)	5

*Flanagin and Metzger's Credibility scale was used to evaluate both Platform Credibility and the Credibility of Fake News on Social Media (message).

All of the items of the above-mentioned scales were measured according to a 7-point Likert scale from 1- Strongly Disagree to 7 – Strongly Agree.

Social media use was adapted from the Facebook Intensity measure developed by Ellison in 2007. This measurement contains two self-reported assessments of Facebook activity intended to measure how actively involved a participant was in Facebook: the number of Facebook "friends" and daily Facebook usage time. A series of Likert-scale attitudinal questions are also included in this

measurement to gauge how emotionally attached and integrated Facebook is within the participant's everyday activities.

For the variables: Bandwagon Effect and Source Type, the measurement used were the manipulations of the post presented.

For the Bandwagon effect dimension, the number of comments and likes were manipulated on each article, creating two manipulations: one with high levels of bandwagon, and another with low levels of bandwagon.

For Source Type, two manipulations were included – one post diffused by the profile of a reputable Portuguese News Media Organization – *Sic Notícias* – and the second post, considered a trusted Facebook friend, to not create any bias associated with the name or picture the profile was designated as “*M.Silva*”, and presented with the standard Facebook profile icon.

To control the credibility of the news itself (regardless of source type or bandwagon), a fifth manipulation was created without any social media platform identified, to assess the credibility of the previous items independently. Followed by the application of the credibility scale above mentioned. All manipulations displayed the same news content.

The demographic variables were used as control variables: Gender, Age, Education Level, and Employment Status. Gender was measured between “Female” and “Male”, considering an “Other/Prefer not to say” option. Age was measured and divided into nine groups (Under 18; 18-24; 25-34; 35-44; 45-54; 55-64; 65-74; 75-84; 85 or older). Education was measured and divided into five groups, considering the highest level completed (Less than high school; High school graduate; Bachelor’s degree; Master’s degree; Ph.D. or higher). Employment status was measured and divided into five groups (Student; Student-Worker; Employed; Unemployed; Retired).

All the data collected was uploaded directly into IBM SPSS 25 to analyze, interpret and draw conclusions.

3.4.3. Post Manipulations

All manipulations displayed the same news content, which was adapted from an article from *Polígrafo* (Gaspar, 2020) marked as false information by the Portuguese fact-checking website. The content of the article was: “The latest mRNA vaccines, never before offered to the market on a large scale, directly intervene in the individual's genetic material. The advantage of this technology is that immunizers are created from the replication of mRNA sequences through genetic engineering, which makes the process cheaper and faster.”. Which was paired with an image representing covid vaccination.

The manipulations were designed to replicate the Facebook platform interface, with the exception of the control manipulation that resembled no specific platform. Facebook was the chosen social media platform because of all the social media platforms, Facebook's role in the dissemination

of fake news may have the most influence, according to a survey by Anderson (2018), 44% of people globally access Facebook for news. According to Liu et al. 2019's research, 23% of Facebook users admitted to sharing misleading information, whether intentionally or not. In Portugal, according to Statista (2022) 8.9 million people were using Facebook as of March 2022, making up more than 87% of the population.

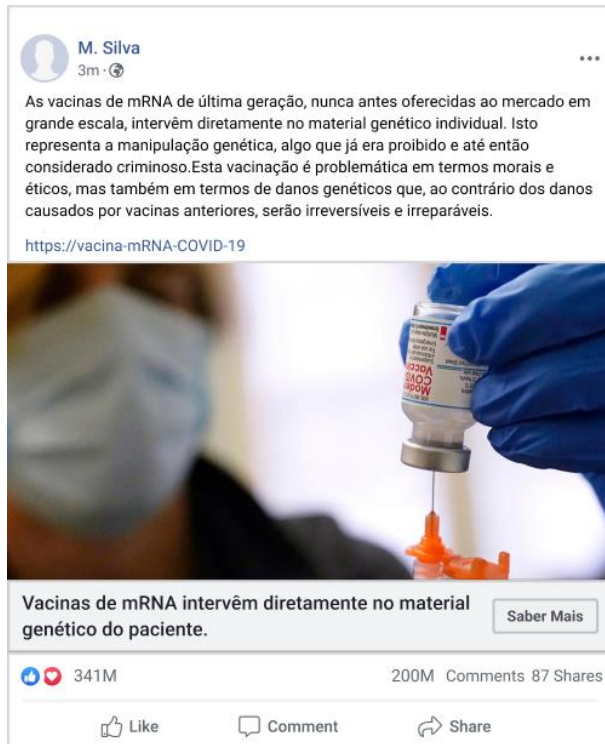


Figure 3 - Manipulation 1

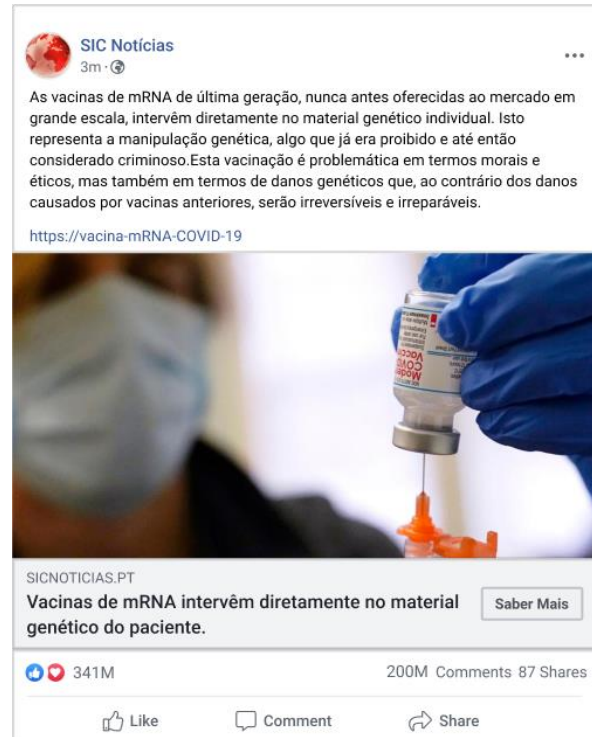


Figure 2 - Manipulation 2

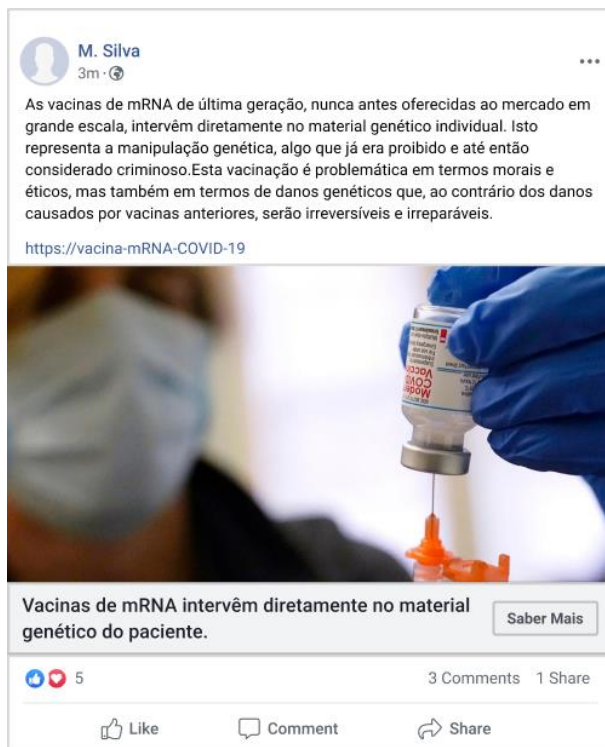


Figure 4 - Manipulation 3



Figure 3 - Manipulation 4

Vacinas de mRNA intervêm diretamente no material genético do paciente.

As vacinas de mRNA de última geração, nunca antes oferecidas ao mercado em grande escala, intervêm diretamente no material genético individual. Isto representa a manipulação genética, algo que já era proibido e até então considerado criminoso. Esta vacinação é problemática em termos morais e éticos, mas também em termos de danos genéticos que, ao contrário dos danos causados por vacinas anteriores, serão irreversíveis e irreparáveis.



Figure 5 - Manipulation 5

CHAPTER 4

Results**4.1. Sample**

In this study, a convenience sample was used and links to the online questionnaire were shared and published through Social Media channels, using a snowball sampling approach. This research focuses on Facebook users in Portugal, and so an initial question filtered out those who didn't have a Facebook account. Thus, from the 435 valid responses obtained, 363 were valid responses from participants with a Facebook account (72 respondents didn't have a Facebook account and didn't proceed to answer the questionnaire).

Table 2 - Descriptive Statistics - Do you have a Facebook account?

	N	%
<i>Do you have a Facebook account?</i>		
Yes	363	83.4
No	72	16.6

4.2. Sample Characterization

The majority of respondents were women, 52.6% (N=229), whereas 30.3% were men (N=132), and the remaining 0.5% responded other/ prefer not to say (N=2).

The predominant age range was 18-24 years old with 30.1% (N=131), followed by 45-54 with 20.2% (N=88) and 35-44 with 12.4% (N=54).

The predominant education level was bachelor's degree with 42.8% (N=186), followed by High School Graduation with 21.8% (N=95) and Master's degree with 15.6% (N=68). Most respondents were employed with 49% (N=213), followed by students with 24.1% (N=105).

Table 3 - Descriptive Statistics - Sociodemographic Characteristics (N=363)

	N	%
Age		
Under 18	16	3.7
18-24	131	30.1
25-34	32	7.4
35-44	54	12.4
45-54	88	20.2
55-64	38	8.7
65 and older	4	0.9

	N	%
Gender		
Female	229	52.6
Male	132	30.3
Other / Prefer not to say	2	0.5
Education Level		
Less than High School	7	1.6
High School Graduate	95	21.8
Bachelor's Degree	186	42.8
Master's Degree	68	15.6
PhD or higher	7	1.6
Employment Status		
Student	105	24.1
Student – Worker	29	6.7
Employed	213	49
Unemployed	11	2.5
Retired	5	1.1

Considering the use of Facebook, the predominant time spent on Facebook in the past week was less than 10 minutes with 38.9% (N=169), followed by 10-30 minutes with 22.5% (N=98) and 31-60 minutes with 10.1% (N=44).

Respondents indicated that the most common number of Facebook friends was more than 400 with 36.6% (N=159), followed by 251-300 with 10.6% (N=46) and 11-50 with 7.4% (N=32).

In total 44.6% of respondents read the news on Facebook (N=194), whereas 38.9% do not read the news on Facebook (N=169).

Table 4 - Descriptive Statistics - Facebook Use

	N	%
Do you usually read news articles on Facebook?		
Yes	194	44.6
No	169	38.9
About how many Facebook friends do you have?		
11-50	32	7.4
51-100	22	5.1
101-150	26	6
151-200	30	6.9
201-250	20	4.6
251-300	28	6.4
301-400	46	10.6
More than 400	159	36.6

	N	%
<i>In the past week, on average, approximately how many minutes per day have you spent on Facebook?</i>		
Less than 10 minutes	169	38.9
10-30 minutes	98	22.5
31-60 minutes	44	10.1
1-2 hours	31	7.1
2-3 hours	9	2.1
More than 3 hours	12	2.8

4.2.1. Groups exposed to the Manipulations

The 363 respondents were randomly exposed to five (5) different social media post manipulations, constituting the following groups:

Table 5 – Descriptive Statistics – Manipulation Groups

Groups	N
1 Trusted Friend / High volume	71
2 News Organization / High volume	70
3 News Organization / Low volume	72
4 Trusted Friend / Low volume	78
5 Control	72

For all groups, most respondents were women, 1-64,8% (N=46), 2-65.7% (N=46), 3-63.3% (N=47), 4-56.4% (N=44) and 5-63.9% (N=46).

The predominant age range for Group 1 was 45-55 years old with 26.8% (N=29), and 18-24 for the remaining groups (2,3,4,5).

The predominant education level was bachelor's degree, followed by High School Graduation for groups 2,4 and 5, and master's degree for groups 1 and 3. Most respondents were employed with 49% (N=213), followed by students. (Appendix II)

4.2.2. Manipulation Control Check

Several control questions were asked after the exposure to the posts, in order to determine participant's cognizance regarding the conditions to which they were exposed: "The post contains information about COVID-19 vaccines"; "The post presented has a high volume of likes"; "The post presented has a low volume of comments"; "The post presented was shared by a Friend"; "The post presented was shared by SIC Notícias". Following the analysis, the control questions that consider dimensions analyzed on the hypotheses were more relevant to the study, and thus testing was conducted.

A Oneway ANalysis Of VAriance test was conducted to check the manipulation questions, and a post hoc test to identify which particular differences between the pairs of means are significant. From the ANOVA test, we can conclude that at least one pair of groups is different amongst themselves ($p < .05$).

Table 6 - ANOVA control test results

Control	N	Mean	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
"The post presented has a high volume of likes"	70	1.84	.958	.000	1.61	2.07
"The post presented was shared by a Friend"	78	1.94	.958	.000	1.72	2.15

For the control question "The post presented has a high volume of likes", it was necessary that for groups 1 and 2 there was no mean difference regarding the perception of the number of likes, and that the same occurred for groups 3 and 4, and that all manipulation groups differed from group 5. After the testing, we can conclude that manipulation groups 1 and 2 have no mean differences, as well as groups 3 and 4, but 1 and 2 are different from 3 and 4.

Table 7 - ANOVA Multiple Comparisons (Control1)

Manipulation Groups	Groups	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1 Trusted Friend / High volume	2.00	-.265	.129	.242	-.62	.09
	3.00	-.534*	.128	.000	-.89	-.18
	4.00	-.589*	.126	.000	-.93	-.24
	5.00	-.978*	.128	.000	-1.33	-.63
2 News Organization / High volume	1.00	.265	.129	.242	-.09	.62
	3.00	-.268	.129	.229	-.62	.08
	4.00	-.324	.126	.079	-.67	.02
	5.00	-.713*	.129	.000	-1.07	-.36

3 News Organization / Low volume	1.00	.534*	.128	.000	.18	.89
	2.00	.268	.129	.229	-.08	.62
	4.00	-.056	.125	.992	-.40	.29
	5.00	-.444*	.128	.005	-.79	-.09
4 Trusted Friend / Low volume	1.00	.589*	.126	.000	.24	.93
	2.00	.324	.126	.079	-.02	.67
	3.00	.056	.125	.992	-.29	.40
	5.00	-.389*	.125	.017	-.73	-.05
5 Control	1.00	.978*	.128	.000	.63	1.33
	2.00	.713*	.129	.000	.36	1.07
	3.00	.444*	.128	.005	.09	.79
	4.00	.389*	.125	.017	.05	.73

We can also conclude that regarding the control question “The post was shared by a friend”, manipulation groups 1 and 4 have no mean differences, and these are different from the rest of the manipulation groups, which was the expected result for this control question.

Table 8 - ANOVA Multiple Comparisons (Control2)

Manipulation Groups	Groups	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1 Trusted Friend / High volume	2.00	-.727*	.133	.000	-1.09	-.36
	3.00	-.515*	.132	.001	-.88	-.15
	4.00	-.020	.129	1.000	-.38	.33
	5.00	-.710*	.132	.000	-1.07	-.35
2 News Organization / High volume	1.00	.727*	.133	.000	.36	1.09
	3.00	.212	.132	.496	-.15	.58
	4.00	.707*	.130	.000	.35	1.06
	5.00	.018	.132	1.000	-.35	.38
3 News Organization / Low volume	1.00	.515*	.132	.001	.15	.88
	2.00	-.212	.132	.496	-.58	.15
	4.00	.495*	.129	.001	.14	.85
	5.00	-.194	.131	.577	-.55	.17
4 Trusted Friend / Low volume	1.00	.020	.129	1.000	-.33	.38
	2.00	-.707*	.130	.000	-1.06	-.35
	3.00	-.495*	.129	.001	-.85	-.14
	5.00	-.689*	.129	.000	-1.04	-.34
5 Control	1.00	.710*	.132	.000	.35	1.07
	2.00	-.018	.132	1.000	-.38	.35
	3.00	.194	.131	.577	-.17	.55
	4.00	.689*	.129	.000	.34	1.04

4.3. Validation of Measures

Exploratory factor analysis (EFA) was conducted to check dimensionality and validate the reliability of the scales of Issue Attitude, Social Media Use, Fake News Awareness, Intention to Share, Message and Facebook Credibility.

Table 9 - Results from Exploratory Factor Analysis

Constructs	Factor Loadings									Cronbach's Alpha	Cronbach's Alpha if Item Deleted
	1	2	3	4	5	6	7	8	9		
Fake News Awareness										,832	
FA1	,743										,802
FA2	,624										,829
FA3	,804										,795
FA4	,803										,800
FA5	,753										,805
FA6									-,517		,876
FA7	,834										,797
FA8	,814										,800
Perceived Credibility of Information on SM										,917	
MC1		,811									,905
MC2		,868									,885
MC3		,877									,883
MC4		,761									,921
MC5		,817									,898
Facebook Credibility										,895	
F1			,699								,900
F2			,876								,851
F3			,880								,855
F4			,800								,882
F5			,799								,871
Social Media Use										,847	
F1				,826							,806
F2				,629							,841
F3				,857							,796
F4				,626							,841
F5				,777							,811
F6				,677							,830
Intention to Share										,943	
S1					,842						,938
S2					,869						,886
S3					,842						,929

From the principal components analysis conducted, a solution with 9 factors was presented using Kaiser's criteria, and that account for 68% of the variance of the initial variables. The Bartlett's Test proved that the PCA could be performed in this case as the null hypothesis was rejected (Sig = 0.000) and the KMO test revealed a good value too (KMO = 0,853 > 0,7). Through the varimax rotation it was possible to verify that all items loaded above 0,500 (Marôco, 2014), with the exception of FNA6 (Fake News Awareness 6 – I am concerned about fake news) – which has a different relation to other variables due to negative correlation. This can mean that either the variable behaves in the opposite way, or the respondents didn't fully understand the meaning of the question – and so this item should be excluded from further analysis. Lastly, from the reliability test of the scale, measured with the Cronbach's Alpha, all variables scored more than 0,600, considered a satisfactory value (Marôco, 2014).

Table 10 - Results from Exploratory Factor Analysis - Issue Attitude

Constructs	Factor Loadings									Cronbach's Alpha
	1	2	3	4	5	6	7	8	9	
Attitude										,558
A1					,739					
A2					,707					
A3					,460					
A4								,564		
A5								,528		
A6							,881			
A7							,842			
A8							,650			
A9								,599		
A10								,592		
A11					,611					
A12					,460				,748	
A13									,619	

According to the Rotated Component Matrix, the items from Issue Attitude were grouped into four groups. After this, another reliability test of the Issue Attitude scale divided into the previous groups, measured with the Cronbach's Alpha was done, where all variables scored more than 0,600, with the exception of A9 ("I believe that although most COVID-19 vaccines are safe, sometimes there may be problems"), and so this item was removed from further analysis.

Issue Attitude Groups, from PCA

1 Mistrust in COVID-19 vaccination	A1; A2; A11; A3.
2 Trust in effectiveness of COVID-19 vaccination	A6; A7; A8
3 Concerns about COVID-19 vaccination	A4; A5; A10
4 Preference for Natural Immunity compared to vaccines	A12; A13.

Table 11 - Results from Exploratory Factor Analysis - Issue Attitude Groups

Constructs	Cronbach's Alpha	Cronbach's Alpha if Item Deleted
1	,804	
A1		,718
A2		,668
A3		,823
A11		,773
2	,854	
A6		,762
A7		,720
48		,887
3	,579	
A4		,522
A5		,423
A9		,603
A10		,421
4	,633	
A12		
A13		

Revised Model after Reliability Test

H1: Bandwagon effect is positively related to the perceived credibility of Fake News on social media.

H2: News from News Media Organizations have similar effects on perceived credibility of Fake News on social media, as those shared by a trusted individual.

H3: The credibility of the social media platform is positively related to the credibility of Fake News on Social Media.

H4: The frequency with which users use social media platforms influences the perceived credibility of Fake News on social media.

H5: The attitude towards the issue (covid vaccination) has effects on perceived credibility of fake news on Social Media

H5(a): Mistrust in covid vaccination has a positive impact on the perceived credibility of Fake News on Social Media (reviewed)

H5(b): Trust in the effectiveness of COVID-19 vaccination has a negative impact on the perceived credibility of Fake News on Social Media (reviewed)

H5(c): Concerns about COVID-19 vaccination have a negative impact on the perceived credibility of Fake News on Social Media (reviewed)

H5(d): Preference for Natural Immunity compared to vaccines has a positive impact on the perceived credibility of Fake News on Social Media (reviewed)

H6: The higher the perceived credibility of fake news on Social Media the higher the intention to share.

H7(a): Fake news awareness negatively influences perceived credibility of fake news on social media.

H7(b): Fake news awareness negatively influences perceived credibility of social media platforms (medium).

4.4. Hypotheses Testing

H1: Bandwagon effect is positively related to the perceived credibility of Fake News on social media.

Concerning the first hypothesis (H1: Bandwagon effect is positively related to the perceived credibility of Fake News on social media.) a simple linear regression analysis was used to test if the Bandwagon effect significantly predicted the perceived credibility of information on social media.

For this groups were coded as High Bandwagon (1) and Low Bandwagon (0). Groups 3 (NEWS ORG/LOW VOLUME) and 4 (TRUSTED FRIEND/LOW VOLUME) as Low Bandwagon (0), as for High Bandwagon only group 1 (TRUSTED FRIEND/ HIGH VOLUME) was coded, since from the control question we could conclude that respondents from group 2 (NEWS ORG/HIGH VOLUME) did not pay attention to the Bandwagon cues presented in the post manipulation.

The results of the regression indicated the predictor explained 0.6% of the variance ($R^2 = 0.006$, $F = 1.363$, $p > .05$). It was found that the Bandwagon Effect was not a significant predictor of Perceived Credibility of Fake News on social media, and in that reasoning, H1 was rejected.

Table 12 - Simple Linear Regression results (H1)

R Square	F	Beta	Sig.
.006	1.363	.210	.244

H2: News from News Media Organizations have similar effects on perceived credibility of Fake News on social media, as those shared by a trusted individual.

For the second hypothesis, to check the magnitude of the effect and see if there are different levels of the construct perceived credibility of information credibility of fake news on social media among the groups exposed to a post from a News Media Organization and a post from a Trusted Friend, a Oneway ANalysis Of VAriance (ANOVA) was performed.

Table 13 - ANOVA results (H2)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	43.869	4	10.967	6.627	.000
Within Groups	592.488	358	1.655		
Total	636.357	362			

From the ANOVA test to the equality of means of Perceived Credibility of Fake News on Social Media in the 5 groups, we can conclude that at least one pair of groups is different amongst themselves ($p < 0.1$). In order to accept the hypothesis all groups (1, 2, 3 and 4) had to be different from the control group (5), which is true ($p\text{-value} < 0.1$), for groups 1,3 and 4. Therefore, News from News Media Organizations have similar effects on perceived credibility of Fake News on social media, as those shared by a trusted individual, H2 is accepted.

Table 14 - ANOVA Multiple Comparisons (H2)

Groups	Groups	Mean Difference	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1 Trusted Friend/ High Volume	2 News Organization / High volume	-.75686	.21669	.005	-1.3510	-.1628
	3 News Organization / Low volume	-.49472	.21516	.147	-1.0846	.0952
	4 Trusted Friend / Low volume	.05208	.21102	.999	-.5265	.6306
	5 Control	-.71694	.21516	.008	-1.3069	-.1270
2 News Organization / High volume	1 Trusted Friend/ High Volume	.75686	.21669	.005	.1628	1.3510
	3 News Organization / Low volume	.26214	.21594	.743	-.3299	.8542
	4 Trusted Friend / Low volume	.80894	.21180	.001	.2282	1.3896
	5 Control	.03992	.21594	1.000	-.5521	.6320
3 News Organization / Low volume	1 Trusted Friend/ High Volume	.49472	.21516	.147	-.0952	1.0846
	2 News Organization / High volume	-.26214	.21594	.743	-.8542	.3299
	4 Trusted Friend / Low volume	.54679	.21025	.072	-.0296	1.1232
	5 Control	-.22222	.21441	.838	-.8101	.3656
4 Trusted Friend / Low volume	1 Trusted Friend/ High Volume	-.05208	.21102	.999	-.6306	.5265
	2 News Organization / High volume	-.80894	.21180	.001	-1.3896	-.2282
	3 News Organization / Low volume	-.54679	.21025	.072	-1.1232	.0296
	5 Control	-.76902	.21025	.003	-1.3455	-.1926
5 Control	1 Trusted Friend/ High Volume	.71694	.21516	.008	.1270	1.3069
	2 News Organization / High volume	-.03992	.21594	1.000	-.6320	.5521
	3 News Organization / Low volume	.22222	.21441	.838	-.3656	.8101
	4 Trusted Friend / Low volume	.76902	.21025	.003	.1926	1.3455

H3: The credibility of the social media platform is positively related to the credibility of Fake News on Social Media.

Concerning the third hypothesis (H3: The credibility of the social media platform is positively related to the credibility of Fake News on Social Media.), a simple linear regression analysis was used to test if the credibility of the social media platform significantly predicted the perceived credibility of information on social media. The results of the regression indicated the predictor explained 10.5% of the variance ($R^2 = 0.324$, $F = 42.270$, $p < .05$).

It was found that the credibility of the social media platform significantly predicted Perceived Credibility of Fake News on social media ($B = 0.385$, $p < .05$). In that reasoning, H3 is accepted since there is statistical evidence that the credibility of the social media platform significantly influences Perceived Credibility of Fake News on social media.

Table 15– Simple Linear Regression results (H3)

R Square	F	Beta	Sig.
.324	42.270	.324	.000

H4: The frequency with which users use social media platforms influences the perceived credibility of Fake News on social media.

Concerning the fourth hypothesis (H4: The frequency with which users use social media platforms influences the perceived credibility of Fake News on social media.), a simple linear regression analysis was used to test if frequency with which users use social media platforms significantly predicted the perceived credibility of information on social media.

To test the frequency with which users use social media platforms Ellison (2007) Social Media Use scale was used, and a new variable was computed with the summated average, where answers up to 3 on the 7-point Likert scale were computed as Low Frequency (0) and answers from 4 on the 7-point Likert scale were computed as High Frequency (1).

The results of the regression indicated the predictor explained 4.1% of the variance ($R^2 = 0.041$, $F = 4.235$, $p < .05$). It was found that the frequency with which users use social media platforms significantly predicted the Perceived Credibility of Fake News on social media ($B = 0.137$, $p < .05$). In that reasoning, H4 is accepted since there is statistical evidence that frequency with which users use social media platforms significantly influences Perceived Credibility of Fake News on social media.

Table 16– Simple Linear Regression results (H4)

R Square	F	Beta	Sig.
.041	4.235	.202	.000

H5: The attitude towards the issue (covid vaccination) has effects on perceived credibility of fake news on Social Media

H5(a): Mistrust in covid vaccination has a positive impact on the perceived credibility of Fake News on Social Media (reviewed)

H5(b): Trust in the effectiveness of COVID-19 vaccination has a negative impact on the perceived credibility of Fake News on Social Media (reviewed)

H5(c): Concerns about COVID-19 vaccination have a negative impact on the perceived credibility of Fake News on Social Media (reviewed)

H5(d): Preference for Natural Immunity compared to vaccines has a positive impact on the perceived credibility of Fake News on Social Media (reviewed)

Concerning the fifth hypothesis (H5: The attitude towards the issue (covid vaccination) has effects on the perceived credibility of fake news on SM.), which was divided into four new hypotheses a, b, c and (above). According to the confirmation bias theory (Knobloch-Westernwick et al., 2015), stating that people are more likely to perceive something as credible if it confirms their existing beliefs and opinions, the attitudes that confirmed the Fake News post information (Mistrust and Pref. Nat. Immunity) were hypothesized to have a positive influence on the perceived credibility of Fake News on social media; and not perceived it as credible if it doesn't confirm their beliefs (Trust and Concerns), thus hypothesized to influence negatively the perceived credibility of fake news on social media.

After the Principal Components Analysis, a multiple linear regression analysis was used to test if the attitude towards the issue significantly predicted perceived credibility of fake news on Social Media.

Table 17– Multiple Linear Regression results (H5)

R Square	F	Sig.
.107	10.694	.000

The results of the regression indicated the predictors explained 10.7% of the variance ($R^2 = 0.107$, $F = 10.694$, $p < 0.1$). It was found that Mistrust in Covid Vaccination ($B = 0.075$, $p < .05$) and Preference for Natural Immunity ($B = 0.102$, $p < 0.1$), significantly predicted perceived credibility of fake news on Social Media. The remaining (Trust and Concerns) weren't significant predictors of the perceived credibility of fake news on SM ($p > 0.1$).

In that reasoning, H5(a) and H5(d) are accepted since there is statistical evidence that mistrust of covid vaccination significantly influences the perceived credibility of fake news on Social Media.

Table 18 - Multiple Linear Regression Attitude groups results (H5)

	Beta	Sig.
Mistrust	.265	.000
Trust	.004	.951
Concerns	.016	.797
Preference for Nat. Immunity	.102	.072

H6: The higher the perceived credibility of fake news on Social Media the higher the intention to share.

Concerning the fourth hypothesis (H6: The higher the perceived credibility of fake news on SM the higher the intention to share.), a simple linear regression analysis was used to test if the perceived credibility of fake news on SM significantly predicted the intention to share. The results of the regression indicated the predictor explained 25.8% of the variance ($R^2 = 0.258$, $F = 125.233$, $p < .05$). It was found that the perceived credibility of fake news on SM significantly predicted intention to share ($B = 0.137$, $p < .05$). In that reasoning, H6 is accepted since there is statistical evidence that the perceived credibility of fake news on SM significantly influences the intention to share.

Table 19 - Simple Linear Regression results (H6)

R Square	F	Beta	Sig.
.258	125.233	.508	.000

H7(a): Fake news awareness negatively influences perceived credibility of fake news on social media.

Concerning the fourth hypothesis (H7(a): Fake news awareness negatively influences perceived credibility of fake news on social media.), a simple linear regression analysis was used to test if Fake news awareness significantly predicted the perceived credibility of information on social media. The results of the regression indicated the predictor explained 7.1% of the variance ($R^2 = 0.071$, $F = 27.649$, $p < .05$). It was found that Fake news awareness significantly predicted Perceived Credibility of Fake News on social media ($B = -0.592$, $p < .05$). In that reasoning, H7(a) is accepted since there is statistical evidence that Fake news awareness significantly influences Perceived Credibility of Fake News on social media.

Table 20- Simple Linear Regression results (H7a)

R Square	F	Beta	Sig.
.071	27.649	-.267	.000

H7(b): Fake news awareness negatively influences perceived credibility of social media platforms (medium).

Concerning the fourth hypothesis (H7(b): Fake news awareness negatively influences perceived credibility of social media platforms (medium).), a simple linear regression analysis was used to test if Fake news awareness significantly predicted the perceived credibility of social media platforms. The results of the regression indicated the predictor explained 4.7% of the variance ($R^2 = 0.047$, $F = 17.900$, $p < .05$). It was found that Fake news awareness significantly predicted Perceived credibility of social media platforms ($B = -0.406$, $p < .05$). In that reasoning, H7(b) is accepted since there is statistical evidence that Fake news awareness significantly influences Perceived credibility of social media platforms.

Table 21 - Simple Linear Regression results (H7b)

R Square	F	Beta	Sig.
.047	17.900	-.217	.000

Hypotheses Testing Results

H1: Bandwagon effect is positively related to the perceived credibility of Fake News on social media.	Reject
H2: News from News Media Organizations have similar effects on perceived credibility of Fake News on social media, as those shared by a trusted individual.	Accept
H3: The credibility of the social media platform is positively related to the credibility of Fake News on Social Media.	Accept
H4: The frequency with which users use social media platforms influences the perceived credibility of Fake News on social media.	Accept
H5: The attitude towards the issue has effects on perceived credibility of fake news on Social Media	Accept
H5(a): Mistrust in covid vaccination has a positive effect on the perceived credibility of Fake News on Social Media	Accept
H5(b): Trust in effectiveness of COVID-19 vaccination has a negative effect on the perceived credibility of Fake News on Social Media	Reject
H5(c): Concerns about COVID-19 vaccination have a negative effect on the perceived credibility of Fake News on Social Media	Reject
H5(d): Preference for Natural Immunity compared to vaccines has a positive effect on the perceived credibility of Fake News on Social Media	Accept
H6: The higher the perceived credibility of fake news on Social Media the higher the intention to share.	Accept
H7(a): Fake news awareness negatively influences perceived credibility of fake news on social media.	Accept
H7(b): Fake news awareness negatively influences perceived credibility of social media platforms (medium).	Accept

CHAPTER 5

Conclusions

The purpose of this study was to investigate what influenced the perception of information credibility of Fake News on social media, with the purpose of understanding whether some constructs present in the literature affected consumers' credibility judgment.

As the impact of social media on attitudes and behaviors has continued to escalate, the potential impact of fake news for companies and consumers becomes more hazardous.

Fake news and disinformation can spread misleading beliefs on which consumers will base their decisions, while also influencing their attitudes towards brands, products, and generally the world around them. It becomes imperative to understand how consumers decide what to believe – specifically how they evaluate the credibility of information they find online.

This study reports the findings from an experiment on the perceived credibility of Fake News on social media. Based on previous research on message, source, and medium credibility, the effects of several factors, such as - bandwagon effect, type of source, the credibility of the social media platform, frequency of social media use, the attitude towards the issue depicted, intention to share and fake news awareness -, on assessing the credibility of a fake news post. The results were consistent across all five post manipulations tested, showing that the credibility of the social media platform, the frequency with which users use social media platforms, the attitude towards the issue depicted, and fake news awareness are significant predictors of perceived credibility of fake news on social media. Results also demonstrated that the perceived credibility of fake news is a significant predictor of intention to share. However, the Bandwagon effect didn't have an impact on participants' credibility judgment, and news from news media organizations did not have similar effects on the perceived credibility of fake news, as those shared by a trusted individual.

(H1) The hypothesis that assumed the Bandwagon effect was a predictor of the perceived credibility of fake news on social media, was measured through the post manipulations that contained cues to a high and low volume of likes, comments, and shares. Although this was not accepted as significantly predicting the perceived credibility of fake news on social media, other studies (Shen et al., 2019) reached the same conclusion, arguing that respondents might have not paid attention to the bandwagon cues in the context of the questionnaire (Antin & Shaw, 2012), even though quality-control mechanisms were implemented. And this was also confirmed by this study since the control check implemented concluded that in at least one group people did not pay attention to the bandwagon cues. Despite this, such behavior may be representative of people's actual behaviors online.

This research also explored source type, in which decades of credibility research build up on the notions that the reputation of the source is an important credibility heuristic, and that it lies

primarily in the trustworthiness and expertise of the source itself. (H2) However, the assumption that News from News Media Organizations have similar effects on perceived credibility of Fake News on social media, as those shared by a trusted individual was accepted. Regardless, results suggest that consumers do not differentiate when fake news are shared by a News Media Organization, they do however pay attention to when the information is shared by a trusted friend. This reveals that the most important source of information on social media appears to be users' own friends. This confirms past research by Sterret et al. (2018) that concluded that people are more influenced by a trusted individual who shares an article on social media sites like Facebook, than if the news article was produced by a reputable news media organization. People are more likely to recommend a news source when that source is a trusted person (rather than a well-known source). This poses a great threat to the spread of Fake News by well-intended (or not) friends and acquaintances that share information that turns out to be fake, thus contributing to the spread of misinformation to their entire network of friends, and their friends subsequently.

(H3) Mass-mediated communication is complicated because it is embedded in its medium, and so the predictors of credibility depend critically on the consumer's perspective of the medium (Newhagen and Nass, 1989; Appelmand and Sundar, 206). In fact, it was verified that consumers' credibility judgment of Facebook influenced their perception of Fake News on social media.

(H4) Results of this study also demonstrated that the frequency with which users use social media platforms influences the perceived credibility of Fake News on social media, confirming that familiarity with the online platform, or "digital media literacy," does inform users' credibility assessment (Choi and Stvilia, 2015).

(H5) The manipulations presented in the survey regarded the matter of Covid-19 vaccination, which was severely impacted by conspiracies and rumors of safety (Puri et al, 2020), throughout the pandemic. Misinformation and misbeliefs may affect individuals' willingness to accept health and political authorities' recommendations on vaccination. Several authors concluded that the proliferation of fake news on social media is considered to be a crucial cause of vaccine hesitancy. From the literature, links between belief in Covid-19 conspiracies and an increase in vaccine hesitancy were confirmed, and since people are more likely to perceive something as credible if it confirms their existing beliefs and opinions (Knobloch-Westernwick et al., 2015), it was important to investigate whether the attitude toward Covid-19 vaccination had effects on the perceived credibility of fake news on social media.

The attitude dimension was divided into four groups, after reliability testing. Attitudes of trust in vaccination effectiveness, concerns about the vaccination, and a preference for natural immunity over vaccines did not appear to influence the credibility judgments. However, feelings of mistrust regarding COVID-19 vaccination seem to have an impact on the perceived credibility of Fake News on

social media. It appears from the conclusions of this study that having more suspicion and mistrust regarding COVID-19 vaccination may lead consumers to accept fake news that confirms their doubts regarding that matter, as credible. Preference for Natural Immunity also revealed to have a positive impact on the perceived credibility of fake news on social media. Individuals who are more suspicious of vaccination in general, and in the COVID-19 vaccine in particular, tend to perceive fake news that confirms their suspicions more.

(H6) This study further concludes that the higher the perceived credibility of fake news on social media is, the higher the intention to share. It has become challenging to distinguish between false news producers and consumers, due to the characteristics of the online environment, people may easily go from being consumers to producers, or vice versa (with or without their intention) (Kim et al 2021). Thus, it becomes relevant that consumers appear more likely to share fake news content when they perceive it as credible.

(H7) The awareness from a social network member that fake news exists and may be present in their network, provides a measure of authority for the user, making them more skeptical about the credibility of social media information (Cooke, 2017; Torres et al. 2018). This study demonstrated that fake news awareness negatively influences, not only, the perceived credibility of fake news, but also the perceived credibility of the social media platform. Concluding that users who are more aware that fake news exists and pose a threat to the online environment, seem to be less likely to pass a credibility judgment on fake news, on social media, but also on judging the social media platforms as credible.

5.1. Managerial Implications

For today's information consumers, determining the reliability of the information available on social media platforms has become crucial. Our understanding of the drivers of online information assessment is limited because, despite its significance, little empirical study has looked at what elements influence information credibility on social media platforms. (Li & Suh, 2015). Since credibility significantly influences the impact of a message, and so it becomes essential to identify how users decide what to believe.

This research permitted some valuable findings that aligned with the previous literature and can be of great interest to several areas.

Furthermore, it's crucial to manage the direct effects of Fake News articles on society by expanding the number of fact-checking and verification tools accessible on social media. Serious campaigns on the importance of news and information verification on all social media platforms, for instance, as well as making sure that there is educational information on the impact of disseminating fake news on social media on society at large. To establish a safer communication environment for

consumers, social media platforms should increase and update technological mechanisms to promote the eradication of fake news content in real-time, to avoid exposure in the first place. To stop the spread of Fake News, social media platforms should give priority to allocating resources to measures that address the problems that Fake News creates for society as well as the expense, societal impact, and false information associated with regulations to halt the spread of Fake News.

Another aspect to take into consideration would be how this study concluded that users who are more aware that fake news exists and pose a threat to the online environment are less likely to pass a credibility judgment on fake news, thus organizations should enforce efforts of campaigning for fake news literacy towards the digital population, to make more people aware of its existence and dangers. Furthermore, from the conclusions of this study, we concluded that people are more influenced by a trusted individual who shares an article on social media, than if the news article was produced by a reputable news media organization. And so, it becomes critical to sensitize the audience to the fact that fake news might be coming from their closest friends, and that they should remain critical and aware of the information shared by their network.

From a marketing perspective, organizations are increasingly at risk due to the spread of fake news. The Global Internet advertising expenditure is continually rising (Pichierri et al., 2019), meanwhile Fake News is getting more prevalent, with consumers' trust and confidence in the various media channel's ability to cover the news properly and fairly continuing to deteriorate. These tendencies will cause advertising and Fake News to collide more frequently, which will have a significant impact on marketing and brand perception for businesses. Companies need to know whether the presence of an advertisement next to false or deceptive information may have an impact on consumers' views and actions towards a brand to avoid squandering money and damaging their reputation.

The findings of this study also have an immediate use for media professionals, journalists, and health communicators, considering the ubiquity and relevance of the fatigue of COVID-19 information on social media (Liu et al., 2021).

Health communicators must think about how to provide information on social media in a way that sets it apart from fake news. This also applies to brands and companies, that need to invest more efforts into this distinction, being able to take advantage of this study's conclusions regarding the factors that are considered by consumers when passing a credibility judgment on fake news on social media.

Finally, this study can operate as a motivation for organizations and social media platforms to assess the level of commitment to combat the problem of fake news and its impact on society. But ultimately, the public must also hold platforms like Facebook accountable for their decisions. Since these platforms own the data required for such analyses, it is nearly hard to determine how genuine

or successful their anti-fake news initiatives are (Baum & Lazer, 2017). Independent researchers must have access to these data while safeguarding user privacy and aiding us all in determining what is and is not effective in the fight against Fake News.

5.2. Limitations and Future Research

This study focused on the factors that influence the credibility perception of Fake News on social media, however it presents a number of opportunities for future research in the field of communication on social media. This can enable the broadening of the topic of the study, while overcoming some of the constraints of this study, caused by a variety of factors.

It is important to indicate that the manipulation focused on a specific issue (COVID-19 vaccination), but future research might experiment with different issues, which might reveal different outcomes. This study also focused its scope on a specific social media platform – Facebook –, further research could explore different platforms and how they differ, investigate how the credibility perception of Fake News differentiates with social media outlets that rely more on images, such as Instagram, or video, such as YouTube, that could have additional factors at play.

Although the study strained to recruit a diverse and representative sample, its reduced size (N=336) and characteristics might not prove to be illustrative of the Portuguese population and compromise the extrapolation to a broader population. A future study could focus on comparative research across countries to assess the perceptions of each country.

The survey respondents were the vast majority young (30.1% between the ages of 18 and 24 years old) and with a bachelor's degree (42.8%).

Moreover, the posts were fictitious, but the information was retrieved from a real news organization, so there is a chance respondents might have encountered such information before, being previously aware of its false character.

Furthermore, credibility perception is a subjective matter, influenced by countless factors that were not all approached, and some might be more related to individuals' own distinct and personal characteristics than others.

CHAPTER 6

References

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Appendix

Appendix I – Measurement Item Scales

Variable	Scale's Author	Items
Issue Attitude	Danabal et al (2021)	A1 - I believe that authorities promote COVID-19 vaccine for political gain and financial gain, not for people's health. A2 - I believe that COVID-19 vaccination programs are a big con. A3 - I believe that COVID-19 is NOT a real disease. A4 - I believe that COVID-19 vaccines make a lot of money for pha... A5 - I believe that COVID-19 is a new disease, and vaccines have not been thoroughly tested. A6 - I can feel that my family is protected after getting vaccina... A7 - I believe that I can feel safe after being vaccinated for COVID-19. A8 - I believe that I can rely on vaccines to stop serious COVID-19 disease. A9 - I believe that although most COVID-19 vaccines are safe, sometimes there may be problems. 10 - I worry about serious unknown long-term effects of the COVID-19 vaccine in the future. A11 - I believe that COVID-19 vaccines can cause serious problems A12 - I believe that Natural immunity lasts longer than vaccination. A13 - I believe that Natural exposure to germs and viruses gives the safest protection.
Social Media Use	Ellison et al (2007)	F1 - Facebook is part of my everyday activity F2 - I am proud to tell people I'm on Facebook. F3 - Facebook has become part of my daily routine. F4 - I feel out of touch when I haven't logged onto Facebook for a while. F5 - I feel I am part of the Facebook community. F6 - I would be sorry if Facebook shut down.
Fake News Awareness	Bulgurcu, Cavusoglu, & Benbasat (2010), adapted by Torres et al. 2018	FA1 - Overall, I am aware of fake news and its social consequences. FA2 - I have sufficient knowledge about fake news and its social impacts. FA3 - I understand the concern regarding fake news and its impacts on society. FA4 - I am aware of the existence of fake news. FA5 - I have heard about fake news. FA6 - I am concerned about fake news. FA7 - I am aware that some news on social media is fake. FA8 - I know some of the news on social media is not true.
Intention to Share	Lee and Ma (2012), adapted by Torres et al. (2018)	S1 - I intend to share this news story on social media in the future. S2 - I will certainly share this news story on social media in the future. S3 - I plan to share news stories like this on social networks regularly.
Credibility*	Flanagin and Metzger (2007)	MC/FC 1 - Believable MC/FC 2 - Accurate MC/FC 3 - Trustworthy MC/FC 4 - Unbiased MC/FC 5 - Complete

Appendix II – Descriptive Statistics – Sociodemographic Characteristics of the Manipulation groups

Group	1		2		3		4		5	
	N	%	N	%	N	%	N	%	N	%
Age										
Under 18	4	5.6	4	5.7	1	1.4	3	3.8	4	5.6
18-24	24	33.8	25	35.7	22	30.6	32	41	28	38.9
25-34	4	5.6	6	8.6	12	16.7	6	7.7	4	5.6
35-44	13	18.3	9	12.9	10	13.9	8	10.3	14	19.4
45-54	29	26.8	18	25.7	16	22.2	19	24.4	16	22.2
55-64	7	9.9	8	11.4	7	9.7	10	12.8	6	8.3
65 and older	0	0	0	0.9	4	5.6	0	0	0	0
Gender										
Female	46	64.8	46	65.7	47	63.3	44	56.4	46	63.9
Male	25	35.2	24	34.3	24	33.3	33	42.3	26	36.1
Other / Prefer not to say	0	0	0	0	1	1.4	1	1.3	0	0
Education Level										
Less than High School	1	1.4	1	1.4	2	2.8	2	2.6	1	1.4
High School Graduate	14	19.7	20	28.6	8	11.1	27	34.6	26	36.1
Bachelor’s Degree	40	56.3	40	57.1	40	55.6	35	44.9	31	43.1
Master’s Degree	15	21.1	8	11.4	20	27.8	12	15.4	13	18.1
PhD or higher	1	1.4	1	1.4	2	2.8	2	2.6	1	1.4
Employment Status										
Student	21	29.6	22	24.1	14	19.4	27	34.6	21	29.2
Student – Worker	8	11.3	6	8.6	4	5.6	6	7.7	5	6.9
Employed	40	56.3	39	55.7	49	68.1	42	53.8	43	59.7
Unemployed	2	2.8	1	1.4	4	5.6	2	2.6	2	2.8
Retired	0	0	2	2.9	1	1.4	1	1.3	1	1.4

Appendix III – Qualtrics Survey in English

This survey is part of the Master's in Marketing dissertation at ISCTE-IUL. Your collaboration is requested for this study by filling this online survey, which will take about 7 minutes.

Responses are anonymous and confidential, for research purposes only. Please, answer the questions sincerely. Thank you for your participation.

Do you have a Facebook account?

No Yes

skip to end of survey if No

Do you usually read news articles on Facebook?

No Yes

Please answer according to your level of agreement with the following questions.

Choose a number between 1 and 7, where 1 represents “strongly disagree” and 7 represents “strongly agree”.

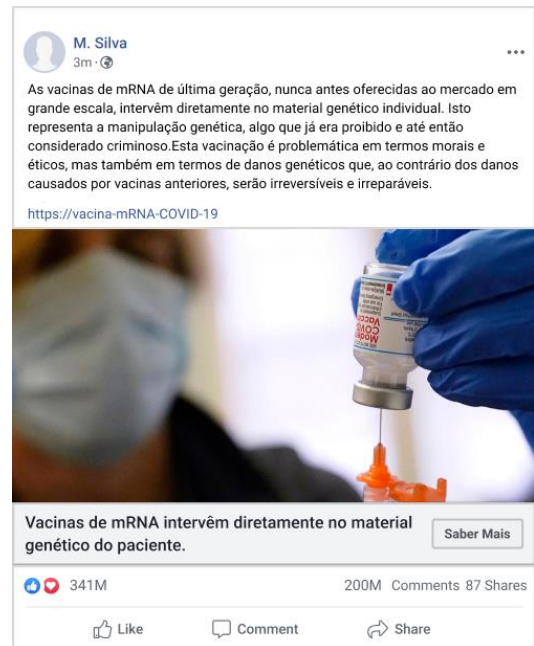
	1 - Strongl y disagree e (1)	2 - Disagre e (2)	3 - Somewh at disagree (3)	4 - Neither agree nor disagree e (4)	5 - Somewh at agree (5)	6 - Agree e (6)	7 - Strongl y agree (7)
I believe that authorities promote COVID-19 vaccine for political gain and financial gain, not for people's health. (1)	☐	☐	☐	☐	☐	☐	☐
I believe that COVID-19 vaccination programs are a big con. (2)	☐	☐	☐	☐	☐	☐	☐
I believe that COVID-19 is NOT a real disease. (3)	☐	☐	☐	☐	☐	☐	☐
I believe that COVID-19 vaccines make a lot of money for pharmaceutical companies. (4)	☐	☐	☐	☐	☐	☐	☐
I believe that COVID-19 is a new disease, and vaccines have not been thoroughly tested. (5)	☐	☐	☐	☐	☐	☐	☐

I can feel that my family is protected after getting vaccinated for COVID-19. (6)	☐	☐	☐	☐	☐	☐	☐
I believe that I can feel safe after being vaccinated for COVID-19. (7)	☐	☐	☐	☐	☐	☐	☐
I believe that I can rely on vaccines to stop serious COVID-19 disease. (8)	☐	☐	☐	☐	☐	☐	☐
I believe that although most COVID-19 vaccines are safe, sometimes there may be problems. (9)	☐	☐	☐	☐	☐	☐	☐
I worry about serious unknown long-term effects of the COVID-19 vaccine in the future. (10)	☐	☐	☐	☐	☐	☐	☐
I believe that Natural exposure to germs and viruses gives the safest protection. (13)	☐	☐	☐	☐	☐	☐	☐

Manipulation 1

Consider the following as a News article posted on Facebook by a trusted friend of yours. Pay special attention to the reactions to the post (likes, comments, shares).

text: mRNA vaccines directly intervene in the patient's genetic material. The latest mRNA vaccines, never before offered to the market on a large scale, directly intervene in the individual's genetic material. This represents genetic manipulation, something that was already prohibited and until then considered criminal. This vaccination is problematic in moral and ethical terms, but also in terms of genetic damage which, unlike the damage caused by previous vaccines, it will be irreversible and irreparable.



Manipulation 2

Consider the following as a News article posted on Facebook by SIC Notícias, a portuguese news broadcast channel. Pay special attention to the reactions to the post (likes, comments, shares).

text: mRNA vaccines directly intervene in the patient's genetic material. The latest mRNA vaccines, never before offered to the market on a large scale, directly intervene in the individual's genetic material. This represents genetic manipulation, something that was already prohibited and until then considered criminal. This vaccination is problematic in moral and ethical terms, but also in terms of genetic damage which, unlike the damage caused by previous vaccines, it will be irreversible and irreparable.



Manipulation 3

Consider the following as a News article posted on Facebook by SIC Notícias, a portuguese news broadcast channel. Pay special attention to the reactions to the post (likes, comments, shares).

text: mRNA vaccines directly intervene in the patient's genetic material. The latest mRNA vaccines, never before offered to the market on a large scale, directly intervene in the individual's genetic material. This represents genetic manipulation, something that was already prohibited and until then considered criminal. This vaccination is problematic in moral and ethical terms, but also in terms of genetic damage which, unlike the damage caused by previous vaccines, it will be irreversible and irreparable.

Manipulation 4

Consider the following as a News article posted on Facebook by a trusted friend of yours. Pay special attention to the reactions to the post (likes, comments, shares).

text: mRNA vaccines directly intervene in the patient's genetic material. The latest mRNA vaccines, never before offered to the market on a large scale, directly intervene in the individual's genetic material. This represents genetic manipulation, something that was already prohibited and until then considered criminal. This vaccination is problematic in moral and ethical terms, but also in terms of genetic damage which, unlike the damage caused by previous vaccines, it will be irreversible and irreparable.

Manipulation 5


SIC Notícias
3m · 🌐

As vacinas de mRNA de última geração, nunca antes oferecidas ao mercado em grande escala, intervêm diretamente no material genético individual. Isto representa a manipulação genética, algo que já era proibido e até então considerado criminoso. Esta vacinação é problemática em termos morais e éticos, mas também em termos de danos genéticos que, ao contrário dos danos causados por vacinas anteriores, serão irreversíveis e irreparáveis.

<https://vacina-mRNA-COVID-19>



SICNOTICIAS.PT

Vacinas de mRNA intervêm diretamente no material genético do paciente.

Saber Mais

11
2 Comments 1 Share

Like Comment Share


M. Silva
3m · 🌐

As vacinas de mRNA de última geração, nunca antes oferecidas ao mercado em grande escala, intervêm diretamente no material genético individual. Isto representa a manipulação genética, algo que já era proibido e até então considerado criminoso. Esta vacinação é problemática em termos morais e éticos, mas também em termos de danos genéticos que, ao contrário dos danos causados por vacinas anteriores, serão irreversíveis e irreparáveis.

<https://vacina-mRNA-COVID-19>



Vacinas de mRNA intervêm diretamente no material genético do paciente.

Saber Mais

5
3 Comments 1 Share

Like Comment Share

Vacinas de mRNA intervêm diretamente no material genético do paciente.

As vacinas de mRNA de última geração, nunca antes oferecidas ao mercado em grande escala, intervêm diretamente no material genético individual. Isto representa a manipulação genética, algo que já era proibido e até então considerado criminoso. Esta vacinação é problemática em termos morais e éticos, mas também em termos de danos genéticos que, ao contrário dos danos causados por vacinas anteriores, serão irreversíveis e irreparáveis.



According to the information previously presented, state your agreement with the following sentences.

The post contains information about COVID-19 vaccines.

- ☐ Agree (1)
- ☐ Disagree (2)
- ☐ Don't know (3)

The post presented has a high volume of likes.

- ☐ Agree (1)
- ☐ Disagree (2)
- ☐ Don't know (3)

The post presented has a low volume of comments.

- ☐ Agree (1)
- ☐ Disagree (2)
- ☐ Don't know (3)

The post presented was shared by a Friend.

- ☐ Agree (1)
- ☐ Disagree (2)
- ☐ Don't know (3)

The post presented was shared by SIC Notícias.

- ☐ Agree (1)
- ☐ Disagree (2)
- ☐ Don't know (3)

After reading this news piece, what would you do next?

Choose a number between 1 and 7, where 1 represents “strongly disagree” and 7 represents “strongly agree”.

	1 - Strongly disagree (1)	2 - Disagree (2)	3 - Somewhat disagree (3)	4 - Neither agree nor disagree (4)	5 - Somewhat agree (5)	6 - Agree (6)	7 - Strongly agree (7)
I intend to share this news story on social media in the future. (1)	☐	☐	☐	☐	☐	☐	☐
I will certainly share this news story on social media in the future. (2)	☐	☐	☐	☐	☐	☐	☐
I plan to share news stories like this on social networks regularly. (3)	☐	☐	☐	☐	☐	☐	☐

Message Credibility Choose a number between 1 and 7, where 1 represents “strongly disagree” and 7 represents “strongly agree”.

Rate the degree to which you found the information presented above to be:

	1 - Strongly disagree (1)	2 - Disagree (2)	3 - Somewhat disagree (3)	4 - Neither agree nor disagree (4)	5 - Somewhat agree (5)	6 - Agree (6)	7 - Strongly agree (7)
Believable (1)	☐	☐	☐	☐	☐	☐	☐
Accurate (2)	☐	☐	☐	☐	☐	☐	☐
Trustworthy (3)	☐	☐	☐	☐	☐	☐	☐
Unbiased (4)	☐	☐	☐	☐	☐	☐	☐
Complete (5)	☐	☐	☐	☐	☐	☐	☐

Fake News Awareness Please state your level of agreement with the following sentences.

Choose a number between 1 and 7, where 1 represents “strongly disagree” and 7 represents “strongly agree”.

	1 - Strongly disagree (1)	2 - Disagree (2)	3 - Somewhat disagree (3)	4 - Neither agree nor disagree (4)	5 - Somewhat agree (5)	6 - Agree (6)	7 - Strongly agree (7)
Overall, I am aware of fake news and its social consequences. (1)	☐	☐	☐	☐	☐	☐	☐
I have sufficient knowledge about fake news and its social impacts. (2)	☐	☐	☐	☐	☐	☐	☐
I understand the concern regarding fake news and its impacts on society. (3)	☐	☐	☐	☐	☐	☐	☐
I am aware of the existence of fake news. (4)	☐	☐	☐	☐	☐	☐	☐
I have heard about fake news. (5)	☐	☐	☐	☐	☐	☐	☐
I am concerned about fake news. (6)	☐	☐	☐	☐	☐	☐	☐
I am aware that some news on social media is fake. (7)	☐	☐	☐	☐	☐	☐	☐
I know some of the news on social media is not true. (8)	☐	☐	☐	☐	☐	☐	☐

About how many total Facebook friends do you have?

- ☐ 11–50 (1)
- ☐ 51–100 (2)
- ☐ 101–150 (3)
- ☐ 151–200 (4)
- ☐ 201–250 (5)
- ☐ 251–300 (6)
- ☐ 301–400 (7)
- ☐ more than 400 (8)

In the past week, on average, approximately how many minutes per day have you spent on Facebook?

- ☐ less than 10 minutes (1)
- ☐ 10-30 minutes (2)
- ☐ 31-60 minutes (3)
- ☐ 1-2 hours (4)
- ☐ 2-3 hours (5)
- ☐ more than 3 hours (6)

Please state your level of agreement with the following sentences.

Choose a number between 1 and 7, where 1 represents “strongly disagree” and 7 represents “strongly agree”.

	1 - Strongly disagree (1)	2 - Disagree (2)	3 - Somewhat disagree (3)	4 - Neither agree nor disagree (4)	5 - Somewhat agree (5)	6 - Agree (6)	7 - Strongly agree (7)
Facebook is part of my everyday activity . (1)	☐	☐	☐	☐	☐	☐	☐
I am proud to tell people I'm on Facebook. (2)	☐	☐	☐	☐	☐	☐	☐
Facebook has become part of my daily routine. (3)	☐	☐	☐	☐	☐	☐	☐
I feel out of touch when I haven't logged onto Facebook for a while . (4)	☐	☐	☐	☐	☐	☐	☐
I feel I am part of the Facebook community . (5)	☐	☐	☐	☐	☐	☐	☐
I would be sorry if Facebook shut down. (6)	☐	☐	☐	☐	☐	☐	☐

Choose a number between 1 and 7, where 1 represents “strongly disagree” and 7 represents “strongly agree”.

Rate the degree to which you find Facebook to be:

	1 - Strongly disagree (1)	2 - Disagree (2)	3 - Somewhat disagree (3)	4 - Neither agree nor disagree (4)	5 - Somewhat agree (5)	6 - Agree (6)	7 - Strongly agree (7)
Believable (1)	☐	☐	☐	☐	☐	☐	☐
Accurate (2)	☐	☐	☐	☐	☐	☐	☐
Trustworthy (3)	☐	☐	☐	☐	☐	☐	☐
Unbiased (4)	☐	☐	☐	☐	☐	☐	☐
Complete (5)	☐	☐	☐	☐	☐	☐	☐

To finish, please answer some questions about yourself.

Gender

- ☐ Female (1)
- ☐ Male (2)
- ☐ Other / Prefer not to say (3)

Age

- ☐ Under 18 (1)
- ☐ 18 - 24 (2)
- ☐ 25 - 34 (3)
- ☐ 35 - 44 (4)
- ☐ 45 - 54 (5)
- ☐ 55 - 64 (6)
- ☐ 65 - 74 (7)
- ☐ 75 - 84 (8)
- ☐ 85 or older (9)

Education Highest level of education completed

- ☐ Less than high school (1)
- ☐ High school graduate (2)
- ☐ Bachelor's degree (3)
- ☐ Master's degree (4)
- ☐ PhD or higher (5)

Employment Status Current Employment Status

- ☐ Student (1)
- ☐ Student - Worker (2)
- ☐ Employed (3)
- ☐ Unemployed (4)
- ☐ Retired (5)

END OF SURVEY

Appendix IV – Qualtrics Survey in Portuguese

No âmbito da dissertação de Mestrado em Marketing, no ISCTE-IUL, solicita-se a sua colaboração neste estudo mediante o preenchimento do questionário online, que se estima demorar cerca de 7 minutos.

As respostas são anónimas e confidenciais, servindo apenas para efeitos de investigação. Pede-se que responda de forma sincera. Obrigada pela sua participação.

Tem conta de Facebook?

Não Sim

skip to end of survey if Não

Costuma ler notícias no Facebook??

Não Sim

Por favor, responda consoante o seu nível de concordância com as seguintes frases.

Escolha um número entre 1 e 7, em que 1 representa “discordo totalmente” e 7 representa “concordo totalmente”.

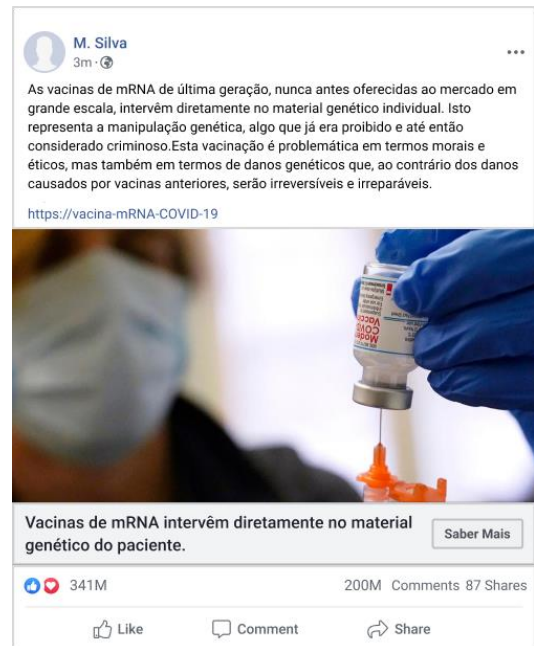
	1 - Discordo Totalmente (1)	2 - Discordo (2)	3 - Discordo Parcialmente (3)	4 - Nem concordo nem discordo (4)	5 - Concordo Parcialmente (5)	6 - Concordo (6)	7 - Concordo Totalmente (7)
Acredito que as autoridades promovem a vacina para a COVID-19 para ganho político e financeiro, e não para a saúde pública. (1)	☐	☐	☐	☐	☐	☐	☐
Acredito que os programas de vacinação COVID-19 são um grande "esquema". (2)	☐	☐	☐	☐	☐	☐	☐
Acredito que a COVID-19 não é uma doença real. (3)	☐	☐	☐	☐	☐	☐	☐
Acredito que as vacinas para a COVID-19 geram muitos lucros para as empresas farmacêuticas. (4)	☐	☐	☐	☐	☐	☐	☐

Acredito que a COVID-19 é uma doença recente e por isso as vacinas não foram meticulosamente testadas. (5)	☐	☐	☐	☐	☐	☐	☐
Sinto que a minha família está protegida depois de ser vacinada contra a COVID-19. (6)	☐	☐	☐	☐	☐	☐	☐
Acredito poder sentir-me seguro depois de ser vacinado contra a COVID-19. (7)	☐	☐	☐	☐	☐	☐	☐
Acredito poder contar com a vacinação para impedir doença grave pela COVID-19. (8)	☐	☐	☐	☐	☐	☐	☐
Acredito que apesar da maioria das vacinas COVID-19 serem seguras, às vezes possam existir problemas. (9)	☐	☐	☐	☐	☐	☐	☐
Preocupo-me com efeitos secundários graves desconhecidos, a longo prazo, devido à vacinação COVID-19, no futuro. (10)	☐	☐	☐	☐	☐	☐	☐
Acredito que as vacinas COVID-19 podem provocar problemas graves nas crianças. (11)	☐	☐	☐	☐	☐	☐	☐
Acredito que a imunidade natural dura mais tempo que a vacinação. (12)	☐	☐	☐	☐	☐	☐	☐
Acredito que a exposição natural a germes e vírus oferece uma proteção segura. (13)	☐	☐	☐	☐	☐	☐	☐

Manipulação 1

Considere a seguinte notícia publicada no Facebook por um amigo seu. Tenha especial atenção às reações ao post (gostos, comentários, partilhas).

text: mRNA vaccines directly intervene in the patient's genetic material. The latest mRNA vaccines, never before offered to the market on a large scale, directly intervene in the individual's genetic material. This represents genetic manipulation, something that was already prohibited and until then considered criminal. This vaccination is problematic in moral and ethical terms, but also in terms of genetic damage which, unlike the damage caused by previous vaccines, it will be irreversible and irreparable.



Manipulação 2

Considere a seguinte notícia publicada no Facebook pela SIC Notícias, canal de informação português. Tenha especial atenção às reações ao post (gostos, comentários, partilhas).

text: mRNA vaccines directly intervene in the patient's genetic material. The latest mRNA vaccines, never before offered to the market on a large scale, directly intervene in the individual's genetic material. This represents genetic manipulation, something that was already prohibited and until then considered criminal. This vaccination is problematic in moral and ethical terms, but also in terms of genetic damage which, unlike the damage caused by previous vaccines, it will be irreversible and irreparable.



Manipulação 3

Considere a seguinte notícia publicada no Facebook pela SIC Notícias, canal de informação português. Tenha especial atenção às reações ao post (gostos, comentários, partilhas).

text: mRNA vaccines directly intervene in the patient's genetic material. The latest mRNA vaccines, never before offered to the market on a large scale, directly intervene in the individual's genetic material. This represents genetic manipulation, something that was already prohibited and until then considered criminal. This vaccination is problematic in moral and ethical terms, but also in terms of genetic damage which, unlike the damage caused by previous vaccines, it will be irreversible and irreparable.

Manipulação 4

Considere a seguinte notícia publicada no Facebook por um amigo seu. Tenha especial atenção às reações ao post (gostos, comentários, partilhas).

text: mRNA vaccines directly intervene in the patient's genetic material. The latest mRNA vaccines, never before offered to the market on a large scale, directly intervene in the individual's genetic material. This represents genetic manipulation, something that was already prohibited and until then considered criminal. This vaccination is problematic in moral and ethical terms, but also in terms of genetic damage which, unlike the damage caused by previous vaccines, it will be irreversible and irreparable.


SIC Notícias
3m · 🌐

As vacinas de mRNA de última geração, nunca antes oferecidas ao mercado em grande escala, intervêm diretamente no material genético individual. Isto representa a manipulação genética, algo que já era proibido e até então considerado criminoso. Esta vacinação é problemática em termos morais e éticos, mas também em termos de danos genéticos que, ao contrário dos danos causados por vacinas anteriores, serão irreversíveis e irreparáveis.

<https://vacina-mRNA-COVID-19>



SICNOTICIAS.PT
Vacinas de mRNA intervêm diretamente no material genético do paciente.

Saber Mais



11

2 Comments
1 Share

 Like
 Comment
 Share


M. Silva
3m · 🌐

As vacinas de mRNA de última geração, nunca antes oferecidas ao mercado em grande escala, intervêm diretamente no material genético individual. Isto representa a manipulação genética, algo que já era proibido e até então considerado criminoso. Esta vacinação é problemática em termos morais e éticos, mas também em termos de danos genéticos que, ao contrário dos danos causados por vacinas anteriores, serão irreversíveis e irreparáveis.

<https://vacina-mRNA-COVID-19>



Vacinas de mRNA intervêm diretamente no material genético do paciente.

Saber Mais



5

3 Comments
1 Share

 Like
 Comment
 Share

Manipulação 5

Considere a seguinte notícia publicada nas redes sociais.

Vacinas de mRNA intervêm diretamente no material genético do paciente.

As vacinas de mRNA de última geração, nunca antes oferecidas ao mercado em grande escala, intervêm diretamente no material genético individual. Isto representa a manipulação genética, algo que já era proibido e até então considerado criminoso. Esta vacinação é problemática em termos morais e éticos, mas também em termos de danos genéticos que, ao contrário dos danos causados por vacinas anteriores, serão irreversíveis e irreparáveis.



De acordo com a informação apresentada anteriormente, declare o seu nível de concordância com as seguintes frases.

A publicação apresentada contém informação sobre vacinas COVID-19.

- ☐ Concordo (1)
- ☐ Discordo (2)
- ☐ Não sei (3)

A publicação apresentada tem um alto volume de gostos.

- ☐ Concordo (1)
- ☐ Discordo (2)
- ☐ Não sei (3)

A publicação apresentada tem um baixo volume de comentários.

- ☐ Concordo (1)
- ☐ Discordo (2)
- ☐ Não sei (3)

A publicação apresentada foi partilhada por um amigo.

- ☐ Concordo (1)
- ☐ Discordo (2)
- ☐ Não sei (3)

A publicação apresentada foi partilhada pela SIC Notícias.

- ☐ Concordo (1)
- ☐ Discordo (2)
- ☐ Não sei (3)

Considerando a notícia anteriormente apresentada, o que faria depois de a ler?

Escolha um número entre 1 e 7, em que 1 representa “discordo totalmente” e 7 representa “concordo totalmente”.

	1 - Discordo Totalme nte (1)	2 - Discor do (2)	3 - Discordo Parcialme nte (3)	4 - Nem concor do nem discord o (4)	5 - Concordo Parcialme nte (5)	6 - Concor do (6)	7 - Concord o Totalme nte (7)
Tenho intenção de partilhar esta notícia nas redes sociais, no futuro. (1)	☐	☐	☐	☐	☐	☐	☐
Vou certament e partilhar partilhar esta notícia nas redes sociais, no futuro. (2)	☐	☐	☐	☐	☐	☐	☐
Planeio partilhar notícias como esta nas redes sociais regularme nte. (3)	☐	☐	☐	☐	☐	☐	☐

Escolha um número entre 1 e 7, em que 1 representa “discordo totalmente” e 7 representa “concordo totalmente”.

Avalie o grau com que acha que a informação apresentada anteriormente é:

	1 - Discordo Totalmente (1)	2 - Discor do (2)	3 - Discordo Parcialme nte (3)	4 - Nem concor do nem discord o (4)	5 - Concordo Parcialme nte (5)	6 - Concor do (6)	7 - Concord o Totalme nte (7)
Verosí mil (1)	☐	☐	☐	☐	☐	☐	☐
Exata (2)	☐	☐	☐	☐	☐	☐	☐
Fidedig na (3)	☐	☐	☐	☐	☐	☐	☐
Imparci al (4)	☐	☐	☐	☐	☐	☐	☐
Comple ta (5)	☐	☐	☐	☐	☐	☐	☐

Por favor, responda consoante o seu nível de concordância com as seguintes frases.

Escolha um número entre 1 e 7, em que 1 representa “discordo totalmente” e 7 representa “concordo totalmente”.

	1 - Discor do Totalme nte (1)	2 - Discor do (2)	3 - Discordo Parcialme nte (3)	4 - Nem concor do nem discord o (4)	5 - Concordo Parcialme nte (5)	6 - Concor do (6)	7 - Concord o Totalme nte (7)
De forma geral, tenho consciência da existência de notícias falsas e das suas consequên cias. (1)	☐	☐	☐	☐	☐	☐	☐
Tenho conhecime nto suficiente sobre notícias falsas e os seus impactos sociais. (2)	☐	☐	☐	☐	☐	☐	☐
Compreend o a preocupaçã o em relação a notícias falsas e aos seus impactos sociais. (3)	☐	☐	☐	☐	☐	☐	☐

Tenho consciência da existência de notícias falsas. (4)	☐	☐	☐	☐	☐	☐	☐
Já ouvi falar de notícias falsas. (5)	☐	☐	☐	☐	☐	☐	☐
Estou preocupado com notícias falsas. (6)	☐	☐	☐	☐	☐	☐	☐
Tenho consciências que algumas notícias nas redes sociais são falsas. (7)	☐	☐	☐	☐	☐	☐	☐
Sei que algumas notícias nas redes sociais não são verdadeiras. (8)	☐	☐	☐	☐	☐	☐	☐

Cerca de quantos amigos tem no Facebook?

- ☐ 11–50 (1)
- ☐ 51–100 (2)
- ☐ 101–150 (3)
- ☐ 151–200 (4)
- ☐ 201–250 (5)
- ☐ 251–300 (6)
- ☐ 301–400 (7)
- ☐ mais de 400 (8)

Na última semana, em média, aproximadamente quanto tempo por dia passou no Facebook?

- ☐ menos de 10 minutos (1)
- ☐ 10-30 minutos (2)
- ☐ 31-60 minutos (3)
- ☐ 1-2 horas (4)
- ☐ 2-3 horas (5)
- ☐ mais de 3 horas (6)

Por favor, responda consoante o seu nível de concordância com as seguintes frases.

Escolha um número entre 1 e 7, em que 1 representa “discordo totalmente” e 7 representa “concordo totalmente”.

	1 - Discordo Totalme nte (1)	2 - Discor do (2)	3 - Discordo Parcialme nte (3)	4 - Nem concor do nem discord o (4)	5 - Concordo Parcialme nte (5)	6 - Concor do (6)	7 - Concord o Totalme nte (7)
O Facebook faz parte da minha atividade diária. (1)	☐	☐	☐	☐	☐	☐	☐
Tenho orgulho de dizer às pessoas que estou no Facebook. (2)	☐	☐	☐	☐	☐	☐	☐
O Facebook faz parte da minha rotina diária. (3)	☐	☐	☐	☐	☐	☐	☐
Sinto-me fora de alcance quando não acedo ao Facebook há algum tempo. (4)	☐	☐	☐	☐	☐	☐	☐
Sinto-me parte da comunidade do Facebook. (5)	☐	☐	☐	☐	☐	☐	☐
Teria pena se o Facebook encerras-se. (6)	☐	☐	☐	☐	☐	☐	☐

Escolha um número entre 1 e 7, em que 1 representa “discordo totalmente” e 7 representa “concordo totalmente”.

Avalie o grau com que acha que o Facebook é:

	1 - Discordo Totalmente (1)	2 - Discordo (2)	3 - Discordo Parcialmente (3)	4 - Nem concordo nem discordo (4)	5 - Concordo Parcialmente (5)	6 - Concordo (6)	7 - Concordo Totalmente (7)
Verosímil (1)	☐	☐	☐	☐	☐	☐	☐
Exato (2)	☐	☐	☐	☐	☐	☐	☐
Fidedigno (3)	☐	☐	☐	☐	☐	☐	☐
Imparcial (4)	☐	☐	☐	☐	☐	☐	☐
Completo (5)	☐	☐	☐	☐	☐	☐	☐

Para terminar, por favor responda a algumas questões sobre si.

Género

- ☐ Feminino (1)
- ☐ Masculino (2)
- ☐ Outro / Prefiro não dizer (3)

Idade

- ☐ Menos de 18 (1)
- ☐ 18 - 24 (2)
- ☐ 25 - 34 (3)
- ☐ 35 - 44 (4)
- ☐ 45 - 54 (5)
- ☐ 55 - 64 (6)
- ☐ 65 - 74 (7)
- ☐ 75 - 84 (8)
- ☐ 85 or older (9)

Nível de escolaridade mais elevado concluído

- ☐ Menos do que o Ensino Secundário (1)
- ☐ Ensino Secundário (2)
- ☐ Licenciatura (3)
- ☐ Mestrado (4)
- ☐ Doutoramento ou mais elevado (5)

Ocupação

- ☐ Estudante (1)
- ☐ Trabalhador - Estudante (2)
- ☐ Empregado (3)
- ☐ Desempregado (4)
- ☐ Reformado (5)

END OF SURVEY

