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**Ingrid Volkmer**

UNIVERSITY OF MELBOURNE

# **SOCIAL MEDIA AND COVID-19**

**A global study of digital crisis interaction  
among Gen Z and millennials**

KEY RESULTS OF AN INTERNATIONAL STUDY CONDUCTED BY  
WUNDERMAN THOMPSON, UNIVERSITY OF MELBOURNE, POLLFISH AND  
THE WORLD HEALTH ORGANIZATION

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Ingrid Volkmer (University of Melbourne)

Study conducted by Wunderman Thompson, University of Melbourne, Pollfish and the World Health Organization

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## CONTRIBUTORS

**Elena Altieri**, Lead of the Behavioral Insight team at WHO, who provided feedback to the methodology and connected this study with youth-focused initiatives, such as the consultations on young people and COVID-19 behaviors of the WHO Technical Advisory Group on Behavioural Insights and Sciences for Health.

**Sarah Hess**, Technical Officer in the Health Emergencies Programme at the World Health Organization. Sarah Hess works in WHO's Information Network for Epidemics (EPI-WIN) team leading engagement and partnerships during high-impact events. She collaborates with global faith networks, youth networks and the World of Work (governments, workers and employers) on research projects, collating and promoting best practice during the COVID-19 response, and ensuring networks have access to timely, accurate and easy-to-understand information from trusted sources to guide response actions.

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**Taylor Henderson** is a human rights lawyer and has international policy experience including at the OECD's Blockchain Centre, Paris. Her work focuses on the human rights implications of current and emerging technologies, and their potential for the empowerment and inclusion of marginalized individuals and groups.

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The online version of the entire data set can be found on the project's dashboard: <https://www.covid19-infodemic.com/>





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# FOREWORD

Young people around the world continue to show resilience and commitment towards the COVID-19 response, in their own communities and beyond.

Young people are active producers and consumers of information on digital media. The information they produce and use shapes attitudes and beliefs, eventually influencing their own individual behaviors and those of people around them. For this reason, understanding when, where and how young people engage on social media is of crucial importance.

This study, and this report outlining key results, are particularly welcome because they help us understand what has been young people's information-seeking behaviors during a specific phase of a pandemic, that has been characterized by an excess of information on traditional and digital media. However, the value of this study goes beyond the snapshot it provides as it also helps us characterize media consumption habits of young people in general. This research has highlighted in particular what information they trust; what they question; who they share information with and how they respond to mis- or disinformation.

Technology has enabled every person to craft their own narrative, while seeking and engaging with personalized and relevant information. We know that this encourages algorithmic content loops, or 'filter bubbles' where users are not exposed to opposing viewpoints. However, interestingly this study indicates a significant degree of digital literacy, with young people adopting strategies to continuously seek information from a range of sources, effectively broadening -and at times breaking- their filter bubble.

This information is critical for all those involved in the response, as an effective response relies on the effective communication of risk and health information. Ultimately, information that is relevant and appropriate to young people, shared on the right avenues and through trusted sources, contributes to empowering them, by giving them agency and access to solutions needed to protect their health and that of their families and communities.

This research reveals that every young person already plays a role as a crisis communicator, engaging and sharing information in their communities online and in-person. Recognizing this role and its importance, we need to continue exploring and innovating how can we further help young people play this active role within their communities and beyond. This study is an effort in that direction.

We recognize the evolving digital ecosystem and its role in health emergencies such as COVID-19. The dynamic, interconnected network that young people are part of and contribute to, poses complex challenges but also unique opportunities to participate and engage, share lessons, connect experience, access vital information, motivate and inspire, promote accountability and transparency. Timely, accurate and easy-to-understand information from trusted sources will guide young people in their decision-making and contribute to the response to the pandemic.

## **Elena Altieri**

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# EXECUTIVE SUMMARY

- The COVID-19 pandemic is revealing that global big tech platforms and social media are core sites for continuous engagement with crisis content for young citizens. This study included twenty-four countries from all continents at the time of the heightened COVID-19 crisis, and our survey targeted 18-40 year olds, Millennials and Gen Zs – overall n = 23,483 respondents.
- Outcomes show that for young citizens across continents, crisis communication is not just about press briefings. Instead, crisis communication is continuous interaction and engagement across their multiple source environments. Young citizens navigate social media, national media, search sites and messaging apps, they engage with peer communities, science and health experts and – across all countries – substantially with the social media content of the World Health Organization (WHO). Overall, they create their own individual crisis narrative based on the sources they use and the insights they select.
- This study indicates that respondents normally use five social media platforms. Facebook, WhatsApp, YouTube, and Instagram are the top platforms used across all twenty-four countries. However, smaller ‘splinter’ platforms are added to their individual platform mix along their individual interactive preferences, such as thematic orientation of a platform, types of encryption, technical features offered, design of interface and national orientation. Our study reveals a long list of these smaller but highly specific ‘splinter’ platforms which are rarely included in public debate and digital policy approaches. These are relevant components of the individual platform ecology of users, and require further attention.
- Results also show that respondents maintained and curated significant follower groups. While only 13% of respondents of the entire sample had under 50 followers, 11% had between 50 and 99, and the largest group, 55%, had between 100 and 999 followers. However, there was also a relatively large group of respondents with significant follower numbers: 17% said they had between 1000–5000 followers, and 4% said they had more than 5000 followers. The majority of these ‘super communicators’ were from Nigeria.
- In recent months, some governments recruited large-scale influencers to reach out to young citizens regarding restrictions and vaccination. However, our study shows that it is equally important to acknowledge the interactive power of the ‘normal’ social media user. Every social media user maintained communities where content can quickly ‘cascade’ across groups of peers and across platforms to reach millions of users. In other words, information shared even in small communities has the potential of ‘cascading’ – being reshared and reshared across communities of peers – to eventually reach large transnational audiences. Results suggest that these ‘micro,’ macro’ and ‘super’ communicators should be more integrated into crisis response strategies.
- When it came to searching for COVID-19 information, our study indicates a significant degree of digital literacy. Many respondents were aware of the restricting, algorithmically set content loops of their social media community and had developed strategies to break out of these content loops at the time of a heightened health crisis to create their own crisis narratives by actively navigating across a great diversity of sources.
- When we asked for the levels of trust in COVID-19 information sources, results indicate that ‘information messaging apps,’ ‘top results on search sites,’ and ‘my social media community’ were only ‘somewhat trusted,’ while trusted sources included ‘national media,’ but also ‘educators,’ and in some countries, ‘religious leaders’ and ‘my government.’ However, across most countries and age groups, the digital content of the World Health Organization (WHO) and science and health experts ranked on top as ‘highly trusted’ sources.
- When seeking information about vaccines; that is, potential short- and long-term side effects and other related questions, the social media content by the WHO was ranked first by 41% respondents across all twenty-four countries.
- Our study shows that there is a trend to contrast and compare COVID-19 information across sites and platforms. While contrasting and comparing reveals significant digital literacy, this might also leave a sense of an ambiguous information environment. Consequently, a large group of respondents across all countries said that they felt overwhelmed by the amount of information and stopped paying attention.

- In addition, a large group of respondents across all age cohorts and all world regions articulated a vague feeling of doubt, mistrust and skepticism regarding COVID-19 content. This skepticism did not relate to conspiracy content, but rather reflected a sense that all information was 'the same.' This overall feeling of skepticism might explain why the WHO and the neutral information of scientists was ranked as key sources that were 'highly' trusted. This sense of skepticism reflects a significant degree of digital literacy and a critical perception of social media platforms in a heightened health crisis.
- The majority of respondents (59%) across all twenty-four countries said that they were very aware of fake news: 33% were 'somewhat aware;' however, 5% were 'unaware' and only a very small group 'does not care whether content is real or fake.'
- Responses to the question, 'How do you react to COVID-19 information – shared by others on social media/messaging apps – that you know is false?' shows that 35% of the overall sample said that they ignored the content, 25% said that they reported the content, 19% commented on the content, 8.6% unfollowed the person, and 7% shared the content, while 5% said that they 'do not know.'
- Awareness of misinformation amongst young adults is high, however, the challenge is in recruiting them to actively counter it.



# INTRODUCTION

Photo by Szabo Viktor on Unsplash

# ‘WE ARE NOT JUST BATTLING THE VIRUS’

‘We are not just battling the virus,’ noted the WHO’s Director-General at a gathering of foreign policy and security experts in Munich in 2020, ‘we are also fighting an infodemic.’ While the term ‘infodemic’ was first used during the SARS epidemic in Asia in 2003 to describe the increasing amounts of falsified information, the dimension of the COVID-19 ‘infodemic’ has a completely different magnitude. SARS was a regional health crisis, but the COVID-19 pandemic has reached across all continents. All countries and societies are affected. Furthermore, the global COVID-19 pandemic reveals new dimensions of globalized crisis communication. Across countries, citizens who have access to smart mobile phones or other digital devices can directly engage with all kinds of crisis content. They select apps providing crisis news along their personal interests, engage with peers and followers on social media who share similar values, search for further information around individual concerns on platforms and interact directly with international health organizations. Digital information is constantly updated, pushed to mobile phones by news organizations, peers, and governments. In addition, social media communities enable direct crisis interaction: to discuss restrictions, seek emotional support, and support one another by maintaining close social ties in times of tight lockdowns and restrictions in people’s daily lives.

This is a very different scenario of health crisis communication enabled by digital devices compared to decades ago, when daily news and press briefings were mainly delivered by national media, such as television, radio, and newspapers which was only accessible to national citizens at certain times of the day. Consequently, national citizens received the same national perspectives on the health crisis in the evening news, for example. The crisis communication universe is very different today: COVID-19-related information is communicated continuously, enabling an ongoing crisis mode through a constant flow of updates and insights, delivered by all kinds of actors and voices, from individuals who produce their own subjective crisis insights on their YouTube channels to governments, scientists and the World Health Organization (WHO), who utilize social media to reach users across the world. While in earlier periods, the term ‘infodemic’ was associated with the sheer amount of information produced by traditional media, today’s

infodemic reflects not only an unprecedented amount of globalized crisis information, but also an unprecedented complexity: an ongoing flow of all types of voices, insights, comments, clips, and statements. These are shared on social media platforms or delivered by apps, often producing not only misinformation, but also contradictory and ambiguous messages.

The American sociologist Saskia Sassen coined the term ‘assemblage’ in her book *Territory, Authority, Rights* (2006)<sup>1</sup> to describe the complex formation of no longer national, but rather transnational ‘floating’ of all kind of content. In her work, the term is used to describe globalized processes which de-territorialize traditional legitimacy of national structures to establish multi-sited globalized formations. She argues that assemblage formations are enabled by ‘transboundary networks’ and non-national formations. Sassen argues that these dimensions of ‘floating’ content produce own ‘normative orders’ and ‘connect subnational processes, institutions and actors’ (Sassen, 2006: 3).

While in Sassen’s work these phenomena relate to the shifting of national legitimacy, this insight reveals new dimensions of crisis communication. In this sense, the infodemic consists not so much of an infodemic ‘avalanche,’ a massive wave of floating information across societies, but rather of fine-lined individual, yet, globalized interactions, enabled by social media. Users produce their own ‘assemblage,’ that is, their own ‘normative orders’ which they select, curate, sustain, share and forward within their social media networks. In this sense, individuals to NGOs, to influencers, average bloggers and scientists establish their own normative orders, accessible on the globalized scale through social media. The exponential accessibility of digital communication via mobile smart phones and the global reach of social media platforms have, over the past decade, created ‘fluid’ assemblages of digital data spheres which now constitute the ecosystem of globalized health crisis interaction. The role of national crisis information as the only legitimate source is shifting to an individualized crisis horizon where social media interaction produces new perceptions of what legitimate crisis information is.

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<sup>1</sup> Sassen, S. (2006) *Territory, Authority, Rights*. Princeton: Princeton University Press.

Today, citizens across *all* continents who have access to mobile smart devices can continuously connect to such a globalized crisis communication universe. Decades ago, the digital divide between high- and middle- and low-income countries was wide, but mobile phone access is now enabling larger proportions of the population in low- and middle- income countries to access social media platforms and leapfrog outdated landline telecommunication infrastructures. Such an unprecedented globalized crisis communication universe stretches today horizontally across all societies with significant implications for national crisis strategies as well as for crisis response communication of UN agencies.

Within this globalized universe of crisis communication which is, to a large extent, enabled by social media platforms, it is very easy to communicate an alternative 'normative order' of conspiracy theories, anti-vaccination sentiments, and to mobilize protests in defiance of national and international directives. However, once individuals interact with this content, and such an interaction produces data points and content preferences, this specific algorithmic setting can make it very difficult to explore content promoting other perspectives on the crisis. Such a phenomenon of social media 'echo chambers' or 'filter bubbles'<sup>2</sup> around similar – algorithmically filtered – content that enables a continuous self-referential debate, proposing more and more similar content, has implications for national crisis communication, where updates and local implications need to be communicated to the entire population. However, the practice of algorithmically filtered content along individual preferences and values produces crisis information 'spirals' which add the same kind of content perspectives without representation of opposing viewpoints. These are the algorithmically governed processes which contribute to the reinforcement of beliefs, might challenge national health restrictions, and lead to the fracturing of societies in times of crisis.

Because crisis communication is no longer embedded in national or regional spheres, the assessment of the legitimacy of crisis information is another important aspect of today's infodemic. Crisis content delivered via multiple digital content infrastructures, such as health crisis apps, push updates, forwarded links, and online communities make it often impossible for citizens to validate information. In addition, non-human actors are embedded in these interactions as well. Bots, trolls, and other types of programmed interactive robots share

information, produce automated responses. They can raise click rates and high volumes of shares to make content look very relevant for social media users, who then share this 'relevant' content further. These non-human actors can distort digital crisis communication by creating a ripple effect; for example, inciting an emotional reaction from users, which motivates to further share (and consequently legitimize) provocative and dangerous mis/disinformation throughout individual social media communities. The significance of crisis communication shared in this digital infrastructure is particularly significant in the context of social media 'influencers,' who are seen by thousands of followers as legitimate crisis actors.

Those most likely to experience this increasingly dense and complex universe of COVID-19 crisis communication across all continents are today's young adults. The generations of Millennials, born between 1981 and 1996, and Gen Z, born between 1997 and 2010<sup>3</sup> are most active on digital platforms; both as creators and consumers of digital content.

It is therefore crucial to assess how young adults across the world interact within these new digital spheres at a time of a heightened globalized pandemic.

In order to provide insight into these new dimensions of transnationally connected crisis interaction, we conducted a survey among 23,483 respondents in 24 geographically and economically diverse COVID-19 hot spot<sup>4</sup> countries from November 2020 to January 2021. (See Box 1 below.) The survey includes a mix of low-, middle-, and high-income countries<sup>5</sup> across continents. Overall, the aim of the study was to investigate how 18–40 year olds engaged with crisis information and to assess their individual information taxonomies: the sources they trusted, the content they interacted with and shared, and how they perceived misinformation. The outcomes of our survey demonstrate how powerful social media platforms have become, as well as the social, political, and public health influence they wield.

#### **Box 1 Countries involved in this study**

Argentina, Australia, Brazil, China, Colombia, Egypt, France, India, Indonesia, Italy, Japan, Mexico, Morocco, Nigeria, Peru, Philippines, Russia, South Africa, South Korea, Spain, Sweden, Turkey, United Kingdom, United States

<sup>2</sup> Pariser, E (2012) *The Filter Bubble: What the Internet is Hiding From You*. New York: Penguin

<sup>3</sup> Pew Research Center (2019) *Defining generations: Where Millennials end and Generation Z begins*. Washington, DC.

<sup>4</sup> 'Hot spot' countries were identified on the WHO Dashboard which continuously highlights hotspot countries. We have included countries highlighted as hot spots in October 2020.

<sup>5</sup> We use the World Bank's definition of low-, middle-, and high-income countries.

The results of this survey will also contribute to broader digital policy debates which focus on the growing global support for enhanced transparency as an optimum means of making internet companies more accountable for their operations.

The key role of social media reveals the inclination of data-driven businesses to promote improved transparency and to protect privacy. Following a review of existing digital transparency initiatives, legislative regulation, self-regulation, and multidisciplinary approaches, social responsibility initiatives, and legal cases, a recent UNESCO brief<sup>6</sup> concludes that current initiatives are largely aspirational. Acknowledging the challenges presented by the nuances among varied social media platforms, UNESCO advocates for a global approach – identifying a selection of high-level transparency principles that could be relevant generally to all platform companies.

This report concurs that the development of global standards for the regulation of digital platforms is crucial. The spread of mis/disinformation during the COVID-19 pandemic demonstrates the insufficiency of current attempts to regulate social media platforms and digital content. These insights into the ways in which current and future generations engage with crisis communication are crucial to considerations of the most appropriate approach to regulating digital platforms, as well as the relevance and efficacy of national and international communications structures and policies – particularly in times of crisis.

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<sup>6</sup> <https://unesdoc.unesco.org/ark:/48223/pf0000377231>

# 1

## **SOCIAL MEDIA PLATFORMS – *THE* GLOBAL COMMUNICATION INFRASTRUCTURE FOR GenZ AND MILLENNIALS**



Photo by Sara Kurfeß on Unsplash

Unsurprisingly, the use of social media platforms has massively increased during the COVID-19 pandemic. These services are used for crisis updates, direct engagement with peers, governments, scientists, and international organizations. When staying in quarantine or lockdown, digital platforms have even more relevance, because social media communities and peer interaction can mobilize social and emotional support. These are processes which have a 'buffering effect, enabling collective resilience' (Marzouki et al., 2021<sup>7</sup>) to mitigate crisis stress through continuous interaction with the peer community.

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## 1.1 Background

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Given this essential role of digital platforms in the COVID-19 pandemic, social media have become crisis communication actors themselves. A large number of all kind of social media platforms have emerged over the past years which operate very differently in this space. Some social media platforms have adopted a COVID-19 crisis policy; for example, claiming to flag mis/disinformation, providing links to accurate sources of information, and removing posts – and users – that spread harmful content, other platforms do not have crisis policies in place.

Those who adopt COVID-19 crisis policies use very different and platform specific strategies regarding the vetting of algorithms, filtering of information, presentation, ranking of crucial crisis content and defining mis/disinformation. Because social media are corporate platforms with a commercial interest, how they incorporate advertising and trace individual data points to maximize advertising effects differs from platform to platform. While Facebook-owned platforms are the main focus of public and scholarly debate, it is important to include smaller platforms in these debates as well.

Whether large or small, social media platforms have become major globalized influential communication spaces in the current COVID-19 pandemic. The fact that social media platforms occupy this key role for the first time on a global scale explains the often ambiguous internal guidelines, practices, and policies. A study<sup>7</sup> by a global non-governmental organization regarding misinformation dissemination on social media in the COVID-19 crisis reveals that – despite approaches to tackle 'fake' news through an internal verification systems – Facebook still spreads an estimated 3.8 billion views of health and vaccination misinformation especially in

To reach especially young citizens, who are the segment of the population engaging with multifaceted dimensions of social media, international organizations, national governments, and other crisis actors (such as scientists and NGOs) utilize social media and other digital platforms for conveying up-to-the-minute crisis updates. Once posted on social media, these updates invite users to comment, interact, follow content threads, and engage with crisis content and to take on active roles as communicators.

the US, the UK, France, Germany, France, and Italy. The authors argue that social media networks have spread misinformation for years; however, some 'did not appear to have had any focus on health until February 2020 when they started to covering the COVID-19 pandemic' (AVAAZ, 2020<sup>8</sup>).

Because this is the first pandemic where social media platforms have gained such a powerful status on a global scale, it is not surprising that the internal guidelines of crisis information among social media and other digital platforms are not fully developed, and – as the AVAAZ study (2020) reveals – are still faulty. Platforms require international applicable guidelines as they take on key communication roles in a global health crisis. The specific role of social media platforms as crisis actors among users worldwide has also not yet been fully addressed in national and international digital policy debates. The degree of this discussion is still nationally focused, and is very different between countries. However, guidelines and frameworks regarding the performance of social media in times of crisis are especially needed on an international level.

This pandemic is revealing that not only social media, but global big tech platforms are being seen – especially by young citizens! – as core sites for continuous engagement with crisis content. Crisis communication is today deeply embedded in a dimension of social interaction, engaging with – often transnational – peer communities of 'friends,' incorporating selected and shared sources to discuss individual concerns and uncertainties. It is important to assess this role of digital platforms in a globalized dimension, because today, social media reach young adults across societies – on all continents. As statistics of

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<sup>7</sup> Marzouki, Y. Aldossari, F.S. & Veltri, G.A. (2021) 'Understanding the "buffering" effect of social media use on anxiety during the COVID-19 lockdown,' *Humanities and Social Science Communication*, 8(47).

<sup>8</sup> AVAAZ Report (2020) 'Facebook's Algorithm: A Major Threat to Public Health,' [https://avaazimages.avaaz.org/facebook\\_threat\\_health.pdf](https://avaazimages.avaaz.org/facebook_threat_health.pdf)

the International Telecommunication Union (ITU) show, about 4.2 billion people around the world (about 53% of the world's population) use social media. Of these, almost 4 billion are monthly active social media users who have often several accounts.

However, a disparity exists regarding the way in which young adults access the internet, and by extension, social media platforms in a transnational context. Young adults in high income countries have smart mobile phones as access points, but some also have internet access at home, as well as using personal computers. Depending on the geographical region where they live, young people are connected to high-speed telecommunication infrastructure. In contrast, young adults in low- and middle-income countries are more likely to gain access through mobile smart devices, and have smart mobile phones as their main digital access point. While mobile smart phone penetration is growing even in rural areas of low- and middle-income countries, a study by the International Telecommunication Union (ITU) outlines the exacerbation of disparity across the rural-urban divide in low- and middle-income countries regarding the accessibility of home computers. In urban areas, 27% of respondents aged 15–24 indicated that they had internet access at home, compared to 10% in rural areas. These statistics are further visible in the context of low- income countries, where 13% of 15–24 year olds in urban areas indicated that they had home internet access, compared to 5% in rural areas (ITU, 2020).

While significant from a broader developmental perspective (for example, in context of the UN's Sustainable Development Goals), the focus on internet access at home overlooks the increasing opportunities made available by mobile smart devices in low- and middle-income countries, especially over the past few years. Smart mobile phones have become more affordable, the technology is more advanced, and the connectivity has improved. Consequently, an increasing number of young citizens from low- and middle-income countries engage with digital communication via smart mobile phone and regularly access social media. A statistical user analysis by Facebook that compares number of users across large cities – which can be seen as digital hubs – shows that the city with the largest number of Facebook users worldwide is Bangkok, followed by Dhaka (Bangladesh), Jakarta, Mexico City, Sao Paulo, New Delhi, Lima, Istanbul, Cairo, and Ho Chi Minh. This insight demonstrates the relevance of smart devices for 'leapfrogging' earlier, sometimes outdated, national communications infrastructure.

Hundreds of social media platforms exist for various purposes and functions, from creating individual multilevel interaction around communities with peers, to dating and gaming platforms. In an international perspective, Facebook-owned platforms are the most popular and – consequently – most powerful social media platforms on a global scale. Founded in 2004, Facebook's social media platform empire has expanded beyond the original platform to include today Facebook Messenger, Instagram, and WhatsApp. Although users come from all age groups, the majority are 18–44 years old (statista, 2021) and the country where the most Facebook users as of January 2021 are based is India. The Facebook corporation maintains its role as a globalized monopoly; for example, through the acquisition and incorporation of platforms with a focus on a specific interactive feature (such as WhatsApp).

However, a large number of social media platforms have emerged internationally which aim to also grow on the international level. These include non-Western platforms such as the video sharing site TikTok, interactive messenger platforms such as Viber, nationally specific platforms, such as Skyrock in France, KakaoStory in South Korea, Line in Japan, VK in Russia, and QC in China. In addition, encrypted platforms attract sometimes radical communities, such as Telegram and Parler, and thematically specific platforms are geared toward particular genders, regions, or interests.

While globally increasing, social media use is exponentially expanding across Asia, Africa, and South America. Reasons for this massive growth on an international scale are often relatively relaxed practices of national regulation. For example, some governments heavily regulate national media, but social media platforms are seen as corporate entities and drivers of the digital economy. Consequently, they were, until only a few years ago, to some extent left alone by national regulators, which enabled digital platforms to rapidly expand on a global scale and, in the case of Facebook, acquire competitors, such as WhatsApp and Instagram, and are even growing further as globalized monopolies.<sup>9</sup>

Social media platforms play a central role in today's globalized digital crisis communication universe – especially for young citizens across all economic and geographic spheres. By extension, the responsibilities and rights of these platforms, particularly in response to crisis communication, must be clearly defined by way of robust and realistic international regulation and crisis policy frameworks. Local, national and international

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<sup>9</sup> For example, Facebook's acquisition Instagram, which had 30 million users at the time of the acquisition were not in the focus of antitrust regulation by the US Federal Trade Commission.

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## 1.2 Global monopolies dominate – but national specific platforms are also relevant

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governmental, media and public health organizations need to understand and embrace these platforms in order to be able to fully engage with citizens.

The perception of social media platforms by Millennials and Generation Z respondents in 24 countries in times of a global health crisis as outlined in the section below is evidence of the need for a comprehensive and considered national and international approach to social media crisis communication strategies, and for international approaches to platform regulation in times of globalized crisis. International approaches are needed, because, as our study reveals, on the whole, users do not engage with these platforms exclusively or independently; rather, they interact across multiple platforms, often sharing information posted in one forum to multiple others, and create their own multiple platform ecology.

Facebook's undisputed dominance on a global scale is also reflected in our survey. Across *all* 24 countries, responses to the question, 'Which social media platforms or messaging apps do you usually use?' revealed the clear and unsurprising domination of four platforms. This top-four group includes three Facebook-owned platforms: WhatsApp, Facebook and Instagram, and YouTube, which was acquired by the Google consortium in 2006.

However, a further examination on national levels illuminates some distinctions: none of these top-four platforms were 'usually' used in China, where national platforms top the list of Chinese respondents. Similarly, while Japanese respondents ranked YouTube, Twitter, and Instagram highly, the most 'usually' used social media platform was Line – a Japanese messaging app which incorporates gaming, photo-sharing, and a variety of other services, including a dedicated News app.

The survey also reveals several nationally or regionally specific platforms. Skyrock is a French social networking and blogging platform which is only used in France, Indonesia, Turkey, and the US, and Dailymotion, a French platform, was 'usually' used by French respondents.

South Korea is also an interesting example of nationally specific platforms. While the majority of respondents from South Korea (64%) indicated that they 'usually' used YouTube, the second-most popular platform was Kakao

– a South Korean platform which has evolved beyond its flagship instant messaging app KakaoTalk to include 14 additional platform applications, including Kakao Bank (South Korea's first internet-only bank) and KakaoTaxi and KakaoT (budget and premium taxi services booked through the messaging app). South Korea is also home to platforms such as Naver and Daum.<sup>10</sup>

As argued earlier, while Facebook and YouTube exist as global monopolies, more and more local and/or thematic social media platforms emerge and attract local communities through authentic content and interaction.

Our study shows that there are other national nuances and different perceptions of social media platforms across countries which have relevance for the development of national and international crisis communication strategies.

The following figure shows the different peaks of platforms across 23 countries (except China) included in this study. We have grouped countries into their larger region to provide a broad insight into the nuanced relevance of platforms across geographical regions.

As Figure 1 shows, globalized social media monopolies reflect the highest peaks across regions, smaller platforms also peak in specific world regions. For example, TikTok has accumulated a significant user base across the Western Pacific (in our study, represented by Australia and Japan), eastern Mediterranean (represented by Egypt and Morocco), the European region (represented by France, Italy and Sweden), and the US. Discord, which is widely unknown internationally, was used by 20% of respondents from the US.

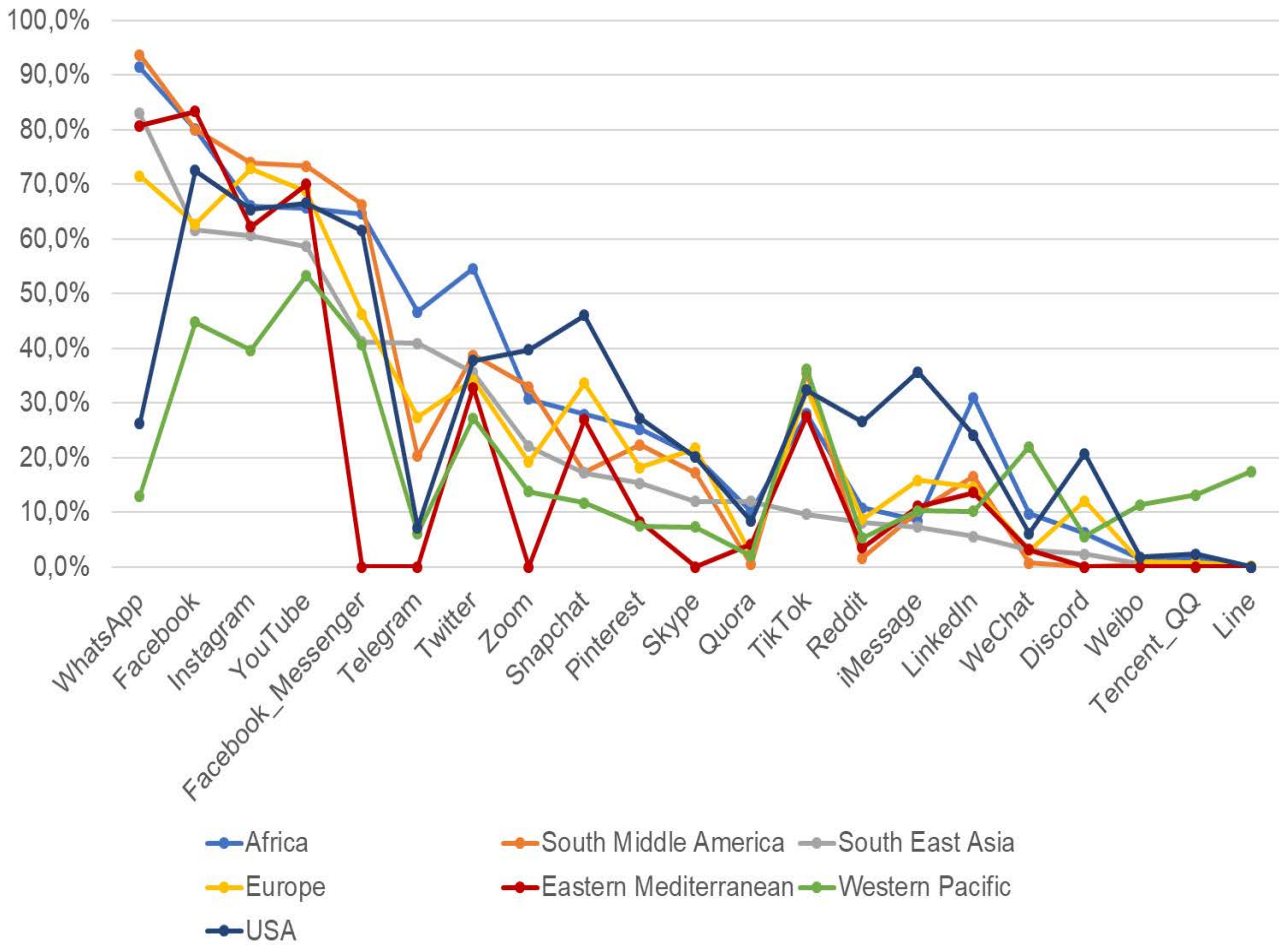
All social media platforms play specific roles in COVID-19 crisis communication: they enable users to directly comment on COVID-19 crisis updates, to produce their own perspectives via photos, to comment and to share updates content with their communities.

In addition, platforms are used in parallel. While some are seen by users as key platforms which are 'usually' used – as Figure 1 shows – others are used as secondary sites, for specific additional purposes; for example, to link up to specific peers or access COVID-19 crisis sources.

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<sup>10</sup> Originally developed as a national search engine and expanding to include nine services such as NaverCafe (allowing users to create individualized internet communities), Naver Blog, and Naver TV.

**Figure 1** Which platforms do you usually use?



Social media channels, across all age groups and gender in 23 countries (except China) represented as regions.

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## 1.3 Social media use across age groups and gender: preferences for visual platforms

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Given the key role of social media platforms for today's young adults, it is important to assess how platform preferences differ across age bands. While our study reveals that responses are similar, in broad terms, nuances and slight differences emerge which are relevant for the understanding of users' social media ecologies.

Respondents across *all* of the three age groups included in this study (18–24, 25–29 and 30–40 years) across genders and countries indicated that they 'usually' used the top-four social media platform monopolies: Facebook was 'normally' used by 66.5% of respondents, WhatsApp by 66.4%, YouTube by 65.4%, and Instagram by 63.7%.

An age cohort perspective reveals that the majority of 18–24 year old respondents across all countries tended to prefer visual interaction platforms, such as the photo sharing platform Instagram, used by 65.8% of 18–24 year olds in the 24 countries. This age group also ranked the video sharing platform YouTube highly (64.1%), followed by the interactive messenger platform WhatsApp (63.8%). This is distinct from 25–29 year old respondents and 30–40 year old respondents whose most 'usually' used platforms were Facebook (72%) and WhatsApp (67.9%).

A study by the Pew Research Center in the US also identifies this trend towards visual platforms by 18–24 year olds in the US (Pew Research Center, 2021). The Pew study suggests that the sharing of visual expressions and visual insights via photos, clips, and other visual content is

– relating to the US – age cohort specific. Preferences for visual interaction seem to reflect a broader generational specific phenomenon – at least across some countries. For example, while 18–24 year old respondents in Australia, France, Russia, Sweden, the United Kingdom, and the United States preferred visual platforms (specifically YouTube, Instagram, and Snapchat), respondents of other countries were consistent in their preference for the 'normal' social media platforms across all age groups.

Responses to the survey also exposed some social media preferences and patterns across genders. While overall the most 'usually' used social media channel was WhatsApp, a large proportion of female respondents across all age groups (69.1%) said that they preferred Instagram as the most-used social media platform (while male respondents were more inclined to use YouTube (65.7%). The preference for Instagram was consistent with respondents in the age cohorts 18–24 and 25–29 years; while 30–40 year old respondents seemed to prefer Facebook.

When assessing national differences, 88.4% of female respondents in Turkey and 83.7% in Sweden listed Instagram on top. However, in only a few countries male respondents listed Instagram at least on rank 2: in Argentina, Brazil, France, Italy, Spain, Sweden, and Turkey.

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## 1.4 Smaller 'splinter' platforms require further attention

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The use of smaller platforms tends to be overlooked in research and in public debate, but they are important to study because they are often used in combination with larger ones to form a user's social media ecology.

Smaller platforms are generally relevant to users who prefer a specific thematic or national orientation or perspective. Our study reveals a very long list of smaller platforms, which we call 'splinter' platforms. They attract a smaller user base who are attracted by thematic or specific interactive preferences, types of encryption, design of interface, and so on.

However, while the user base might appear as small, based on the percentage indicated in our large international survey, this could be slightly misleading. As our survey includes 23,483 respondents, even small percentiles reflect a considerable number of users. For example, the platform Discord, used by 20% of respondents from the US equals 200 of the 1000 respondents from the US in this study. Discord is an instant messaging service with a focus on the gaming community. It enables interaction and chatting with friends while playing games such as Fortnite. In this sense, the 200 users in the US are a niche user base, but have a tight community structure and common interest in gaming. These 200 users can still

take on active crisis communication roles and deliver their perceptions to their large gaming communities in the US and elsewhere.

While platform monopolies are in the spotlight of public debates regarding conspiracy theories, splinter platforms are less in such a public spotlight. End-to-end encrypted platforms are attractive to extremist groups and – at the same time – take on roles as incubators of social movements and activism, but they can also be sites of radicalization and conspiracy theories, as the case of Telegram and Parler in the US has shown. Both platforms were used by specific populist groups who had to migrate to these platforms because their users were banned – or ‘de-platformed’ – from the larger social media platforms such as Facebook and Twitter.

Telegram was used by 7.3% of the 23,483 respondents across the 24 countries included in this survey. This does not mean that these respondents engage in any form in conspiracy theories. The percentage merely shows that Telegram is a splinter platform, used by a small number of users who use the platform for whatever reason based on its feature of encryption. In the context of the global pandemic, Telegram is, for example, also used to recruit members for QAnon and spread their political messages.

Anti-vaccination groups in India prefer to use Telegram to connect to their communities to inform them that the COVID-19 vaccine is actually a ‘gene therapy’ experiment to be finalized by January 2023 as a message of the Telegram community ‘Awaken India Movement’ highlights. This example shows how users of splinter platforms – despite the fact that these platforms do not attract the large groups of users that Facebook platforms attract – can easily function as ‘superspreaders’ of conspiracy theories which could then float across to other platforms.

In today’s globalized sphere of individualized interaction, understanding and incorporating splinter platforms into crisis communication strategies is crucial; not least as the mis/disinformation shared on these platforms is likely to spread to more popular platforms by way of individual users networks, and/or the actions of these users will impact on the lives and wellbeing of surrounding citizens.

Our study has revealed a wide variety of ‘splinter’ platforms being used among respondents (see Figure 2). We define ‘splinter’ platforms as those platforms that attract 30% or less of users across our entire international sample. In this sense, the term ‘splinter’ platform defines platforms with 30% or less users internationally, however, they can attract larger users numbers on a national scale. ‘Splinter’

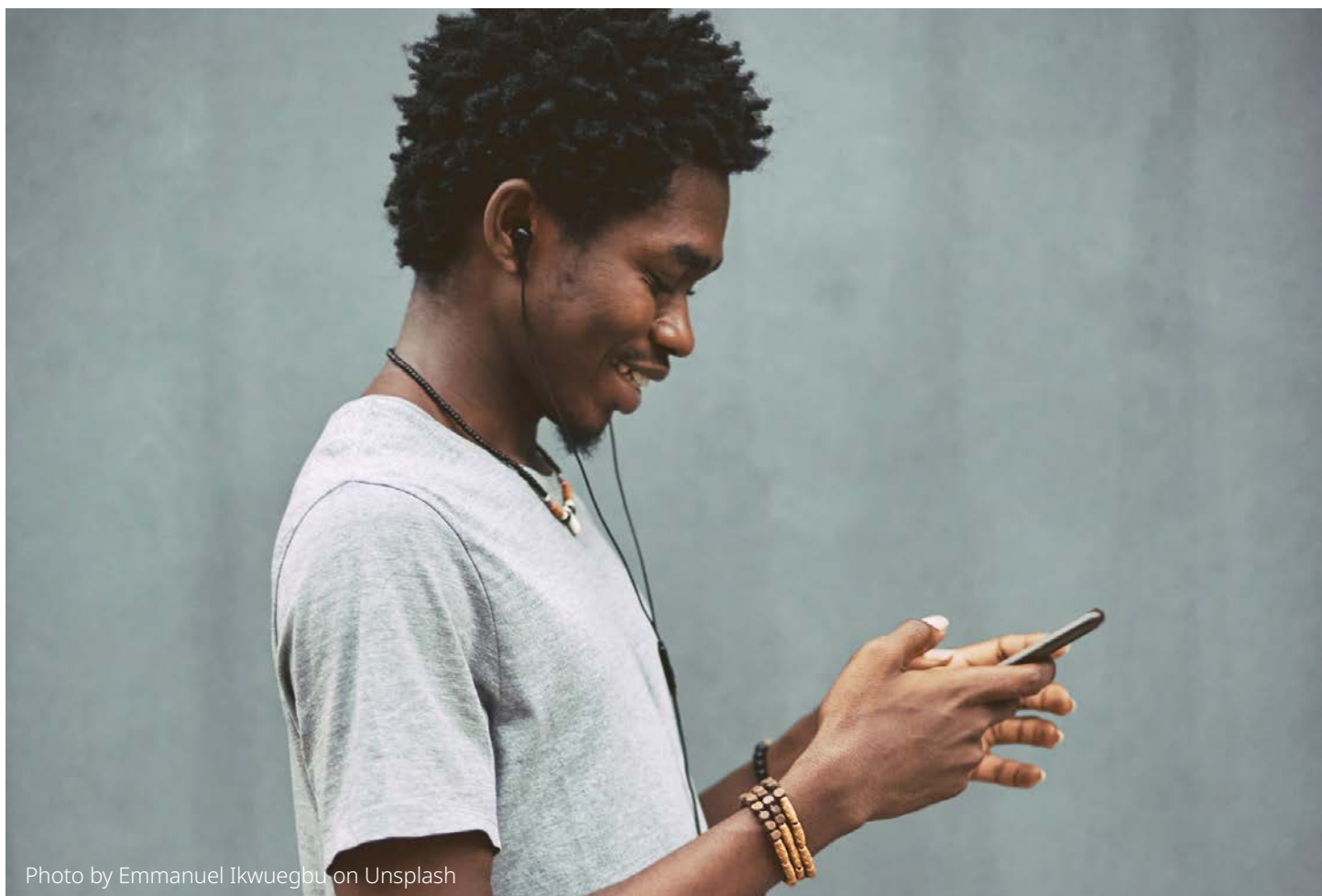


Photo by Emmanuel Ikwuegbu on Unsplash

platforms are often used in parallel with other platforms, mostly with the larger big four platforms. However, the only country which is an exception was China where none of the big four platforms were used in parallel with Chinese splinter platforms.

The following figure (Figure 2) shows the percentage of users across the entire sample.

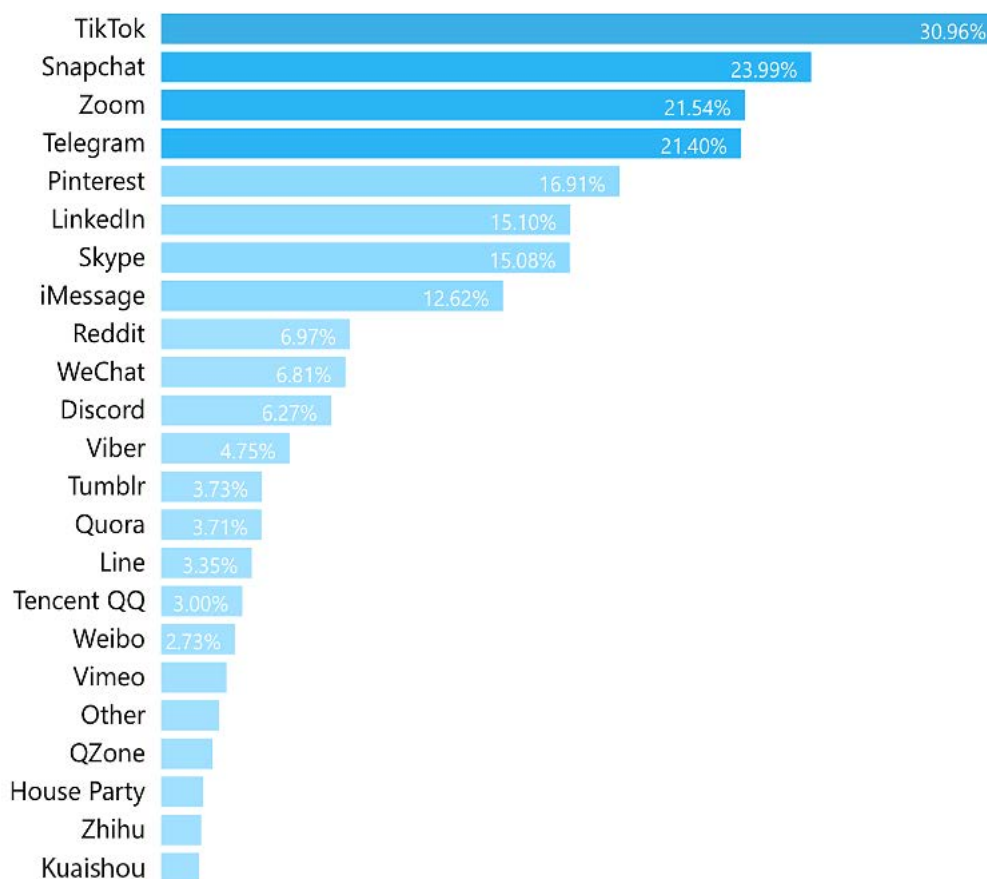
Examples of splinter platforms; that is, those social media platforms which were used by 30% or less of respondents across the entire sample were: Telegram, Reddit, and QQ. Telegram was founded in 2014 by the owners of the Russian social media platform VK, and is today based in London and Dubai. VK is a cross-platform messaging platform (which includes video calling, voice-over internet protocol, file sharing, and several other services) with end-to-end encryption. This feature prevents messages and other data from being viewed by external parties. Other platforms that provide encryption are Viber, Line, KakaoTalk, and Wickr. Telegram's privacy policy has been criticized for enabling dissemination of far-right extremism, radicalization, and illegal content, including non-consensual pornography. In January 2021, Telegram announced that it had more than 500 million active users. Our study reveals significant user bases of Telegram in Mexico where 21% of respondents said they 'usually'

used the platform, 23% of Indonesian respondents, 41% respondents from India and 33% from Spain. Responses indicated that Telegram was more popular with males (23%) than females (19%); and was most commonly used by 25–40 year olds.

A transnationally available and thematically specific social media splinter platform is Reddit, founded in the US in 2005. While the platform has a significant global user base (it had 52 million daily users in 2020), the structure and purpose of the platform is to aggregate digital content, as well as facilitate topic-specific conversations. Members post suggested links, texts, or images, and other members vote these up or down to determine currently trending social media content. In addition, users can create 'Subreddits' and communities select specific areas of interest – from science to politics to social justice. In contrast to Telegram, Reddit has been compelled in recent years to address the spread of mis/disinformation, hate speech, and harmful content on the platform.

Some nationally-oriented examples of splinter platforms are Tencent QQ in China, Discord in the US, Skyrock, and Daily Motion in France. While Tencent QC is used internationally only by a small number of users, the platform attracts 57% of Chinese respondents. Tencent QQ is an instant messaging software service and web

**Figure 2** Social media used in addition to the 'big four' across all countries and age groups

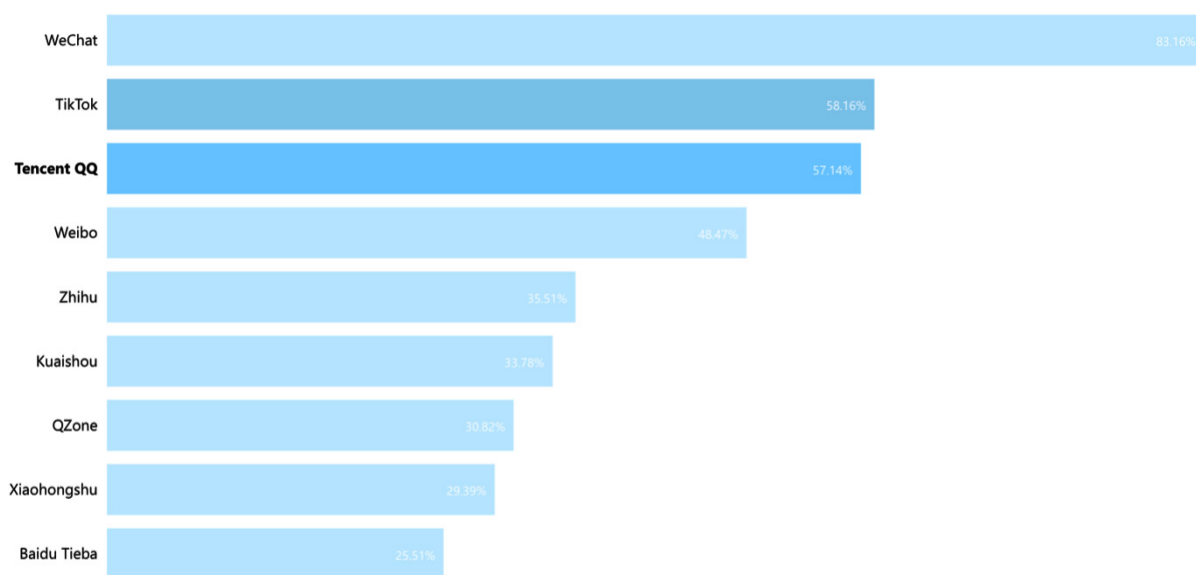


portal developed by the Chinese tech giant Tencent. The platform offers services that provide online social games, music, shopping, microblogging, movies, and group and voice chat software. As of 2020, the platform had more than 617.4 million monthly active users, which are almost exclusively based in China. This nationally-specific example of an international splinter platform demonstrates the importance of comprehensive understanding of the platforms most likely to reach particular demographics of citizens, including in times of crisis.

While public attention is mostly targeting global big tech companies Facebook and Google, it is equally important to address other platforms – splinter platforms – which are less well known, but are also crucial sources in a global health crisis for some users.

Comparing responses to the question ‘Which platforms do you usually use?’ across the 24 countries involved in this survey reveals that young people were active users of an average of five different platforms. The country with the significantly highest number of platform interactions

**Figure 3** Which platforms do you usually use? China and social media platform use



## 1.5 Social media platforms – different platform ‘ecologies’ across countries

was Nigeria, with an average of seven platforms used in parallel. Perhaps unsurprisingly, Chinese respondents reported the lowest number of ‘usually’ used platforms. They responded that they normally used three digital platforms. However, besides the number of platforms used on average, there is also a different dimension that requires some attention. Because the average number of platforms ‘usually’ used was five, it could be argued that individuals interacted within ‘filter bubbles’ through the specific algorithm setting of the several platforms used. Furthermore, while some platforms within such a platform ecology of an individual user aim to identify

misinformation, others, because they offer encrypted services, are unable to trace false crisis content. Based on the significant number of platforms used in parallel, it is important to address such a platform ‘ecology’ in public and policy debates of privacy, algorithmic filtering and – in times of crisis – misinformation, and not only focus on the major global social media platforms.

# Deep insight: Nigeria

## Fighting fake news gathering pace in Nigeria despite the spread of social media hoaxes

Sometime in October 2020, Nigerians were harnessing the power of social media activism by using the ubiquitous digital platforms to fight proliferating police brutality.

The #EndSARS protests took the world by storm as young Nigerians at home and abroad, took to social media to demand the dissolution of the Special Anti-Robbery Squad (SARS) police unit, which was facing a raft of accusations including corruption, torture, and rape. Three months later, many Nigerians were turning to social media again for help as the global COVID-19 pandemic took center stage.

Like elsewhere, social media platforms have not only become important tools for interaction and education, but they have also been used for other purposes, including entertainment reasons, as many are forced to stay at home.

Various phases of Nigerian lockdown, starting in early 2020, have seen many attempts to curb the spread of the pandemic, with authorities imposing a nationwide curfew across major cities between 8.00 pm and 6.00 am, ordering people to wear face masks in public, and banning intercity travel.

But far from just being a beacon of hope, social media platforms have brought a pandemic of mis/disinformation among Nigerians as persistent myths, hoaxes and fake news relating to the 5G technology or Bill Gates' presumed involvement in 'creating' the pandemic, have attracted international attention, particularly in the global south.

Like in many parts of the world, Nigeria's social media users have been susceptible to misleading and unreliable information, as networks of information-sharing among government agencies, the civil society, religious groups, and ordinary citizens have risen across several social media platforms. While these platforms have acted as powerful tools for knowledge dissemination, they have also been used for propaganda purposes.

Even though only 15% of Nigeria's total population is estimated to have social media access, many African societies are communally based, meaning a village of thousands of people only need a few of its dwellers to be using social media. Collective ownership ensures that information is easily shared within and beyond the community.

The deep distrust in government as a source of information has not helped matters in a country where religious leaders are as easily trusted than politicians. Some of these influential religious zealots and 'prophets' have not found anything wrong with telling their many social media followers that COVID-19 was merely a fever, or that drinking boiled water could cure the pandemic.

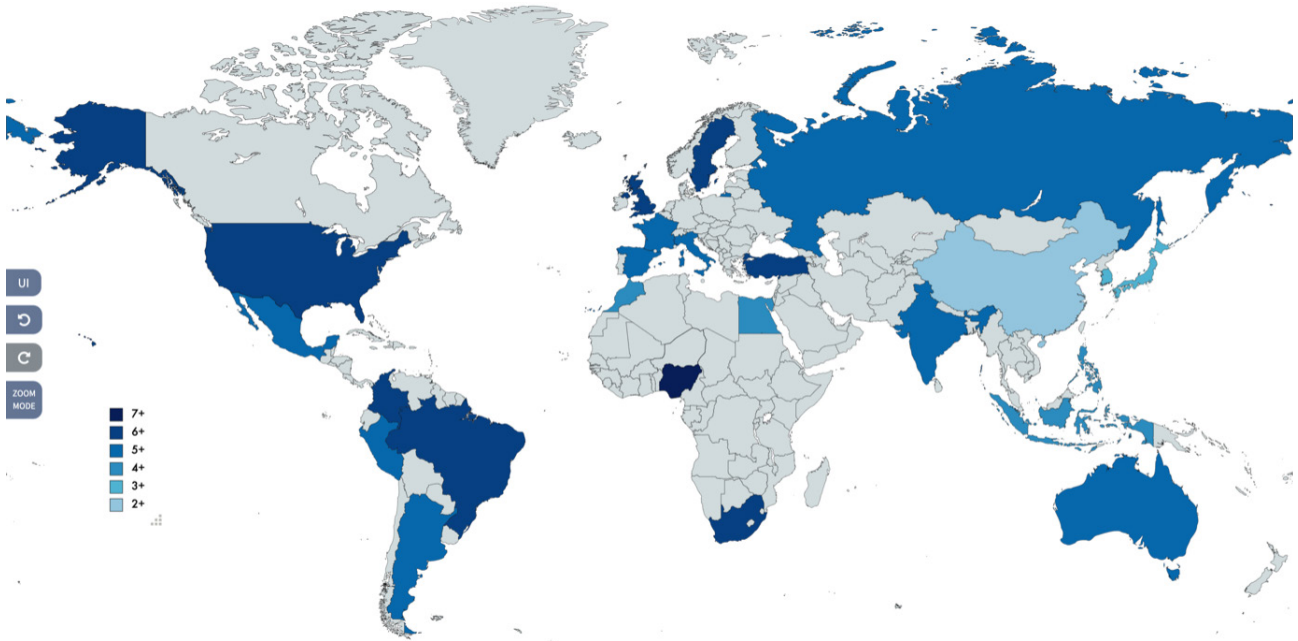
Fighting fake news on the popular cross-platform mobile messaging app, WhatsApp has proven more difficult across Africa because anything can easily be shared and believed, particularly among private groups. To make matters worse, on WhatsApp everyone is an expert.

But there is plenty of hope, as influential campaigns to demystify COVID-19 hoaxes and falsehoods emerging on social media have also gathered momentum, with Twitter hashtags such as #MyCOVID-19NaijaStory and #COVIDStopsWithMe advising Nigerians that the pandemic is real, but also offering ways to mitigate its spread.

Platforms such as Africa Check, an independent organization that has been fighting misinformation across African countries since 2012 have also played pivotal roles in stemming the tide of harmful misinformation, rumors and growing conspiracy theories. Community leaders and United Nations agencies have also joined forces to fight fake news.

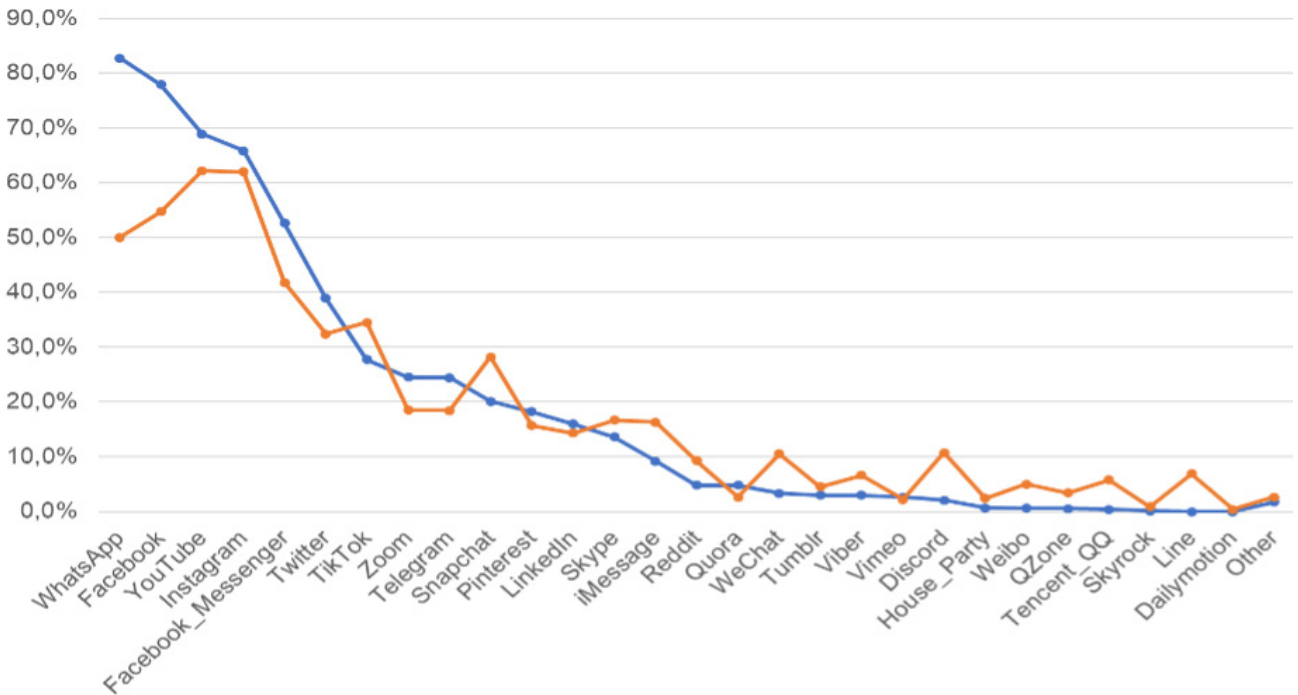


**Figure 4** Social media used in addition to the 'big four' across all countries and age groups



This chart highlights the countries included in this study. The different shades reflect the density of platform ecologies, such as how many platforms were 'usually' used.

**Figure 5** Platforms in developing and developed countries



In light of the previous revelations regarding the social media use of young people across countries and genders, this finding could be interpreted in several ways. While first-stage platforms such as those owned by Facebook remain prevalent, the majority of users in our study (including respondents from low- and middle-income countries) engaged with digital content not only via globalized social

media platforms, but also via smaller splinter platforms and – through such a mix of platforms – created their own social media platform ecologies.

To address these diverse platform ‘ecologies’ is of relevance when drafting communication strategies for national and international crisis response strategies.

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## 1.6 Mobile smart devices bridging the digital divide – but opening up new divides

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This study reveals that respondents from low- and middle-income countries engaged in creating complex social media ecologies, incorporating numerous platforms. The study's sample only included n = 1000 per country (overall n = 23,483). However, results indicate that the gap between low-, middle-, and high-income countries in accessing online content and platforms is closing, due to the increased affordability of smart mobile phones. As highlighted by the number of platforms ‘usually’ used by respondents from low- and middle-income countries, the connectivity divide is no longer as wide as it was about a decade ago. Mobile smart phones have been – and are – a game changer in this process. However, new inequalities are opening up. For example, we see emerging divides relating to ‘data divides’ and ‘social media infrastructural divides.’ Most data and infrastructures (such as social media platforms and their interactive interfaces) are produced in Western high-income countries, while users from non-Western societies have to align their interactive

practices along these digital parameter. However, divides between high- and middle- and low-income countries also exist regarding privacy and data protection as well as user rights of platforms.

Another issue to consider in this context is the significant ‘youth bulge’ in low- and middle- income countries. For example, more than half of Nigeria’s population is under thirty years old, as compared to Japan, where more than a quarter of the population is over 65 years old. This is particularly relevant when considering the interaction of young people with digital content, and consequently, when developing effective strategies in times of crisis on the international, national, and local levels. This includes consideration of youth populations in the domestic context, as well as an understanding of the social media ecosystems and interactions favoured by various populations.

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## 1.7 Takeaway

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Digital platforms are not ‘fixed’ media organizations (like broadcasters), but rather, are fluid data aggregators, generating data in a continuous process. Subjective data choices, made by individuals – either deliberately or through their data footprint profile – determine the algorithmic filter that selects data and digital content along a user’s interest. Algorithmic effects across Facebook-owned platforms and metadata sharing across Facebook-owned platforms WhatsApp and Instagram require some attention, especially in the context of global health crisis communication.

Young adults cultivate highly individualized crisis networked interaction, often via their individual social media platform ecologies, where they select their individual crisis information interface; for example, consisting of specific sources and newsfeeds – often

along personal interests and individual concerns.

Tech monopolies have taken some proactive measures to address misinformation during the COVID-19 pandemic: Facebook uses algorithms and artificial intelligence to tackle misinformation; WhatsApp has incorporated ‘forwarding limits’ to contain mass broadcasts and the ability to produce instant viral publics. YouTube has introduced a new policy regarding COVID-19 content, relating to distressing footage (for example, showing people suffering), medical misinformation and ‘pranks,’ inciting panics are blocked. However, given the nature of the current global pandemic – and other potential global crises in the future – a coherent international policy approach to platform governance in times of a global health crisis is needed.

2

**EVERYONE CAN BE A  
COMMUNICATOR!**

Photo by Chris Montgomery on Unsplash

The ability of social media users to build their own communities of followers and interact directly with peers across countries is a significant element of the success of large and small types of social media platforms. Direct interaction is the major feature – not only on traditional multilayered social media platforms, but also on those that engage users through the sharing of audio-visual clips or other images, such as YouTube, TikTok, Instagram, and Snapchat. Others focus on multipurpose messaging, such as WhatsApp, WeChat, Line and Twitter.

Every social media user is a communicator, and has the capacity to influence those in their network and beyond. A comment or piece of content shared by a user with even a small network has the potential to reach a large group of peers on an international scale. The sharing of content, the algorithmic setting, and trans-platform communication constitute new dimensions of crisis interaction, available to users anywhere in the world who have at least a smart mobile phone. Digital content shared by social media users can have significant real-world consequences in times of pandemic. The spreading of conspiracy theories by individuals anywhere in the world, the production of clips, and memes to warn against vaccination are examples for these individualized, yet globalized types of crisis communication.

In the early phase of social media platforms, around 2005, research had a focus on the – at the time – new phenomenon of user-generated content. It was argued that social media enabled users to produce interactive content (Bruns, 2009<sup>11</sup>). The fact that individual users

can create, but also curate content and share this with their network of peers, wherever they are in the world, has – over time – changed the dynamics of public interaction of all societies. However, in recent years, the phenomenon of individuals developing, maintaining, and attracting large groups of followers has emerged as a new phenomenon, and these social media communicators are today an important sphere of transnational health crisis communication. Today, social media have become highly complex interactive sites, and enable a new types of social media user – the influencer – who are interactive professionals. These individuals only use their mobile phone cameras to produce, sometimes on a daily basis, ‘live’ content in their homes to reach an audience of often millions of followers.

In the context of the COVID-19 pandemic, some countries are beginning to use influencers in their crisis communication strategies, such as in Indonesia and Finland. However, we argue that all social media users have the potential to operate as crisis communicator. As our study shows, even the ‘normal’ social media user maintains and curates significant communities of followers. These processes are changing the dynamics of transnational public interaction at a time of a global health crisis. Not only large-scale influencers, but individuals who manage their own community networks, have the potential to act as crisis communicators and to take on significant roles in crisis responses. However, the role of social media communicator has not yet been fully utilized in crisis response strategies.

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## 2.1 Background

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The term ‘influencer’ defines individuals with a large group of social media followers, from a million to hundreds of millions. The majority of influencers are leveraging their networks to promote products or services for profit. So-called ‘top influencers’ can be grouped around the following characteristics: (1) they are celebrities using their fame to build large groups of followers, such as Cristiano Ronaldo, a famous soccer player with more than 289 million followers on Instagram. Others gain an influencer status as (2) they promote a specific product, theme or lifestyle; for example, Charlie D’Amelio, a dancer with more than 116.2 million followers on TikTok; or promote a specific activity, for example PewDiePie, a gamer with more than 45 million subscribers on YouTube. Many of the most popular influencers have built their own celebrity careers. They continuously produce new, exciting content

in personal settings, such their homes to add a trusted social, peer-to-peer touch. They also need to keep the user base involved and produce sometimes content on a daily basis. These dynamics are important to attract advertisers and generate income through a significant loyal base of followers. They often produce daily content, motivate their followers to subscribe to their channel and sites, interact with their peers in chats in order to increase and engage their network. By working in collaboration with businesses and marketing their own products, influencers can be incredibly successful financially. For example, the make-up tutorial Instagram page of Huda Kattan has resulted in her development of a beauty empire worth millions of dollars, and YouTube comedian Eleonora Pons gets paid \$144,000 per post.<sup>12</sup>

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<sup>11</sup> Bruns, A. (2008) *Blogs, Wikipedia, Second Life and Beyond: from production to produsage*, New York: Peter Lang.

<sup>12</sup> <https://www.livingly.com/The+Highest+Paid+Social+Media+Influencers>

'Top' influencers with a million and more followers are today major operators in marketing and commercial communication, while so-called 'mid-tier' influencers attracting between 50,000 and 500,000 and are less attractive for brand promotion. A 'mid-tier' influencer may not have a focus on the commercialization of their role, but engage in national politics, in election campaigns or just offer their perception on political issues of the day. For example, they may comment on daily news or larger issues such as climate change within their large communities who all share the same values. Similar to large scale influencers, 'mid-tier' influencers are able to take on active roles in opinion formation. The impact of a mid-tier influencer on the political opinion formation of especially members of Generation Z is growing. It is not surprising that some mid-tier influencers are now even hired by marketing companies to deliver specific political messages.

It is also important to realize that mid-tier influencers do not necessarily use YouTube and Instagram, but may prefer niche, lesser known, and smaller splinter platforms – those which target a specific user group with specific themes and/or activities, ranging from activism to gaming. For example, Twitch is a niche streaming splinter platform for gamers, and some of the Twitch 'streamers' act as mid-tier influencers who focus on game themes, and also add occasionally political comments. Market research companies recruit not only mid-tier influencers for political messaging but also begin to hire 'nano' influencers. These are individuals who have between 10,000 and 100,000 followers. The focus of marketing professionals on even smaller communities reflects the increasing importance of social media interaction, embedded in a trusted communities of peers who produce relevant content, led by individuals who are seen as lifestyle models and opinion leaders.

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## 2.2 Influencer and COVID-19 communication

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In the context of the pandemic, influencers have been instrumental in the sharing of public health information, respecting governmental and international directives, and contributing to emotional and even the psychological wellbeing of their networks.

They support, for example, COVID-19 restrictions and use their role to communicate the need for vaccination. However, influencers also voice their concerns about restrictions, about vaccination, and promote mis/disinformation. Mis/disinformation ranges from voicing doubts to strategic promotion of conspiracy messages, praising obscure cures to opposing the 'pseudo-scientific medical dictatorship.' Other influencers merely regularly upload personal comments, such as a British singer, who is an opponent of COVID-19 vaccination and regularly posts comments regarding the role of 5G towers in the pandemic.

Some national governments have incorporated social media influencers to encourage compliance with public health directives. For example, the UK, Finnish, Indonesian, and Australian governments have enlisted social media influencers and celebrities as crisis communicators.<sup>13</sup> In the UK, social media influencers are also paid by official sources to promote the NHS test and trace service.



**Example of anger against 5G messaging from British singer MIA**

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<sup>13</sup> <https://theconversation.com/why-the-uk-government-is-paying-social-media-influencers-to-post-about-coronavirus-145478>; <https://www.theguardian.com/world/2020/apr/01/finland-enlists-social-influencers-in-fight-against-covid-19>; <https://www.heraldsun.com.au/news/victoria/influencers-tell-young-australians-to-follow-government-coronavirus-guidelines/news-story/f090706e65bdd7c15ee23de3639c3a9b>;

To All Influencers,

As India's current crisis worsens, I urge you to use your position for the greater good. You have followers from all walks of life who look up to you and want to emulate you. Hence it is your responsibility to spread awareness about the vaccine and its benefits. If they see you wear a mask they will get influenced to wear one as well. Also, a call to action for plasma donation is the need of the hour.

So continue to create content that is positive, situationally sensitive as well as thought-provoking. Social media may seem like a gloomy place right now, but you have the privilege to brighten it.

We will fight this and conquer together. Until then let's stay at home and assist in every way we can- Shuchir

① Visit the COVID-19 Information Center for vaccine resources. >



*Twitter message to influencers in India*

*Source: Shuchir Suri/Instagram*

As Indonesia is one of the most social media-connected countries worldwide, the government has included social media influencers in the vaccination prioritization strategy in March 2021, to promote vaccination. Based on the large youth population in Indonesia of sixty-five million, which is 28% of its population of 260 million, social media are seen by the government as a major platform for crisis communication. Some influencers were vaccinated live on television to promote messages, such as not to be afraid of vaccines, among their millions of followers.

As the image below shows, the Indian government posts messages to social media influencers encouraging them to help promote public health restrictions.



*Source: Reuters*

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## 2.3 From top, mid-tier and nano-influencers – toward social media micro communicator and cascading interaction

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Due to the further growth of social media communities, and the ability to share all types of content formats, over the past few years, the influence of individuals with much smaller communities has significantly amplified. Individuals with as few as one hundred followers can be understood as a new type of influencer,<sup>14</sup> especially in a global health crisis. For example, one video of a young Australian woman refusing to wear a mask in a hardware store was first shared on Twitter in her community. This video was then further retweeted by many of her followers in their communities and had soon been viewed more than a million times. By 9.00 am the following day, 1157 media items were created about the incident: 644 stories on television, 540 online, 52 on the radio, and 11 in print. While almost all of this content is critical, media monitoring analyst Conal Hanna warns that the cover will also amplify her message: 'It is remarkable how one person, armed with nothing more than a mobile phone and some fringe views, can so quickly hijack the agenda on both social and mainstream media.'<sup>15</sup>

We call this type of interaction 'cascading' interaction which flows from an individual to followers, then further from followers to their other communities and other followers and so on. In other words, content 'cascades' into a broad sphere of continuous 'connections,' making content cascading further and further. While it is important to focus on large-scale influencers at the time of a crisis, it is equally important to acknowledge the interactive power of the 'normal' social media user who maintain smaller communities where content can quickly cascade to reach millions of users. In other words, information shared even in small communities has a potential of cascading, being reshared and reshared across communities of peers of peers to reach large audiences.

The argument to fully acknowledge those users who maintain even small communities is also supported by recent research. Recent research reveals that individuals who establish ongoing engagement in smaller media communities are highly trusted, because they generate and maintain a community of followers who share very similar views and values on a personal daily basis. The impact of communicator of smaller communities is considered by some recent scholarship, such as by

Zhang and Zhao (2020), who focus on the role of Chinese diaspora vloggers sharing their experiences throughout the pandemic. Their findings highlight the importance of tailoring public health information along the daily life, values and beliefs, in this case, the crisis perception of the Chinese diaspora.<sup>16</sup> As studies also reveal, political content shared by these social media communicator is highly trusted; particularly by members who do not care or cannot be bothered to actively seek information themselves.

Overall, studies define social media influencers along various types of community interaction to define different levels of actors. Across various studies, influencers are seen as those individuals who produce content with a high pass-on value which is then shared among their community of followers. In this sense, Influencer act as social media 'broadcaster' who share information and are trusted by their followers. Followers might rely on this content and also on the way how the influencer understands the relevance of this content and the specific perspective. Social media followers share information from influencers and might share this content directly with in their own networks. Despite the fact that they do not actively produce content, they trust a specific influencer and based on this trust level, select content along the cascading model, first to peers, then these peers further share this content and so on. This is the reason why it is important to begin to realize that 'follower' can turn into 'communicator.'

While most studies assess social media in normal times, these dynamics and nuanced interactions are especially crucial for social media strategies of health crisis communication. Studies in contexts of natural disasters argue that influencers are engaged in information sharing and support exchange and are in fact 'crisis information creator' – while followers are engaged in opinion expressing, coping. For example, Zhan and Liu (2019) argue that individuals share content, but also reflect and interpret crisis information seen elsewhere in their trusted social media communities and act as 'influential' while their followers seek emotional support and individual advice (for example, Zhan and Liu, 2019).<sup>17</sup>

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<sup>15</sup> <https://www.abc.net.au/news/science/2020-07-28/face-masks-bunnings-viral-video-covid19-coronavirus/12496434>

<sup>16</sup> [https://www.degruyter.com/document/doi/10.1515/multi-2020-0099/html?\\_lca=transfer%3Aebc6377ed358e92c6160ff23586ae15b&\\_lch=13f45dda9a07cfc0a88a0af0e9653fb2cac7b1d6f3c6cbc1e710fd9718db032b](https://www.degruyter.com/document/doi/10.1515/multi-2020-0099/html?_lca=transfer%3Aebc6377ed358e92c6160ff23586ae15b&_lch=13f45dda9a07cfc0a88a0af0e9653fb2cac7b1d6f3c6cbc1e710fd9718db032b)

<sup>17</sup> Zhan and Liu (2019) 'Understanding motivated publics during disasters: Examining message functions, frames, and styles of social media influencers and followers,' *Journal of Contingencies and Crisis Management*, 27 (4) 387- 399.

In times of crisis, top- and mid-tier influencers are key actors, but also individuals who maintain smaller communities which requires further attention.

A large number of respondents in our study maintain quite significant networks of followers. Even those who maintain networks from 100 to 1000 should be considered as crisis communicator. Even maintaining such a follower group enables to influence opinions through the sharing of selected sources, through providing personal advice and perspectives what is relevant in a crisis.

One key outcome of our study is the fact that across the 24 countries studied, a large group maintains communities of a significant number of followers. It is important to emphasize that individuals who have 100 followers can act as crisis communicator. In order to define communicator in more specific terms, we suggest to distinguish between micro-, macro- and super- communicator.

## 2.4 How many followers do you have? – identifying micro-, macro- and super- communicator

Conducted in 24 COVID-19 countries at the height of the COVID-19 crisis, this study reveals that respondents had – on average – a substantial number of followers across their individual social media platform ecology.

While 13% of respondents in the entire sample had under 50 followers, 11% had between 50 and 99, and the largest group, 55%, had between 100 and 999 followers. However, there was also a relatively large group, 17%, with 1000–5000, and 4% said to have even more than 5000 followers.

We describe those who had been 100 and 999 followers as ‘micro’ communicators. These are already substantial communities where a micro communicator has significant influence on followers through the selection and curation of content shared. This content has the potential – via the cascading model – to reach very large number of users anywhere in the world.

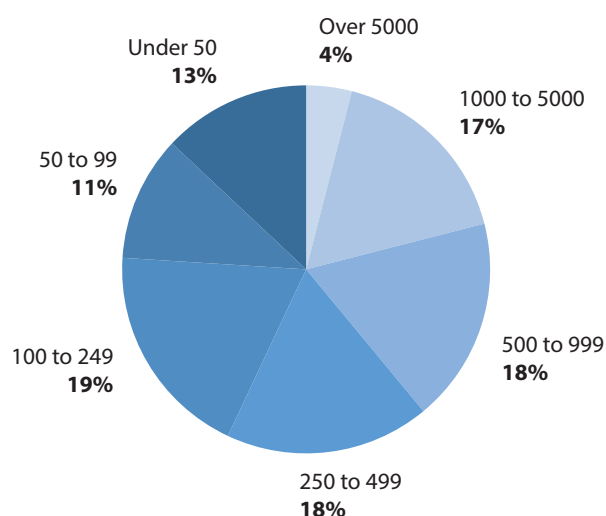
We describe those with 1000 to 5000 followers as ‘macro’ communicators, and those with more than 5000 as ‘super’ communicators. The cascading model applies to these types as well as continuous forwarding from followers to followers across communities creates the potential of ‘broadcasting’ and reaching massive user numbers. Thus, it is important to carefully assess users with communities ranging from 100 to several thousand, because these are often overlooked in their influential role in research, but also in crisis response strategies.

As the graph below shows, across the sample of 23,483 respondents from 24 countries in our study, only a small percentage had under 50 followers (13%) and over 5000 (4%). A significant proportion had a community between 100 and 999. This is the group which we define as micro communicator. A smaller group had between 1000 and 5000 which we define as macro communicator. A very small group said to have over 5000 followers, and this group falls into the category of super communicator.

Despite these different initial community sizes, all three communicator types engage in cascading interaction and are capable of reaching significant user numbers.

The following graph (Figure 7) illustrates the number of followers per country, and reveals interesting insights into a different grouping of these various communicator categories in the broader national context.

Figure 6 Number of followers

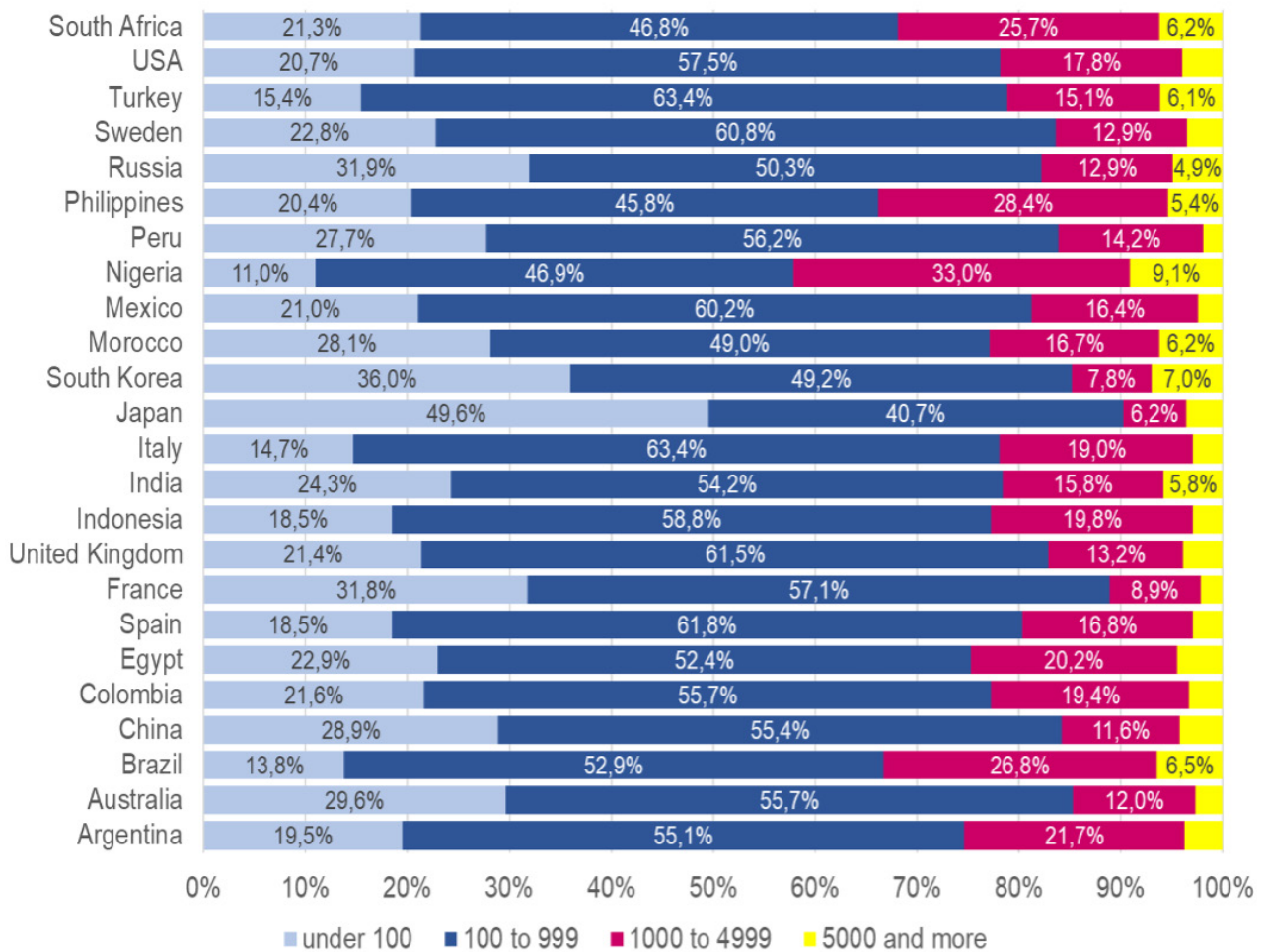


The countries where most respondents who act as micro communicators and maintain communities of between 100 and 999 (dark blue section) were based are Japan and France, while those with the largest proportion of macro communicators; that is, those who have between 1000 and 4999 followers (red section) were based in Nigeria, with 33%, in the Philippines (28.4%), in Brazil with 26.8% and in South Africa (25.7%).

The majority of super communicators; that is, those with more than 5000 followers (yellow section) were from Nigeria, with 9.1% of respondents stating that they had

these large follower communities. The second-largest number of respondents in the super communicator category was from South Korea, with 7% of respondents making this claim. Overall, respondents from Nigeria had the largest number of follower communities. In order to identify those with 1000 and more followers which already constitutes a significant network of peers, the following graph identifies the number of followers along three tiers: micro- (between 100-999 followers), macro- (between 1000 and 4999 followers) and super-communicators with more than 5000 followers).

**Figure 7** Number of followers by country



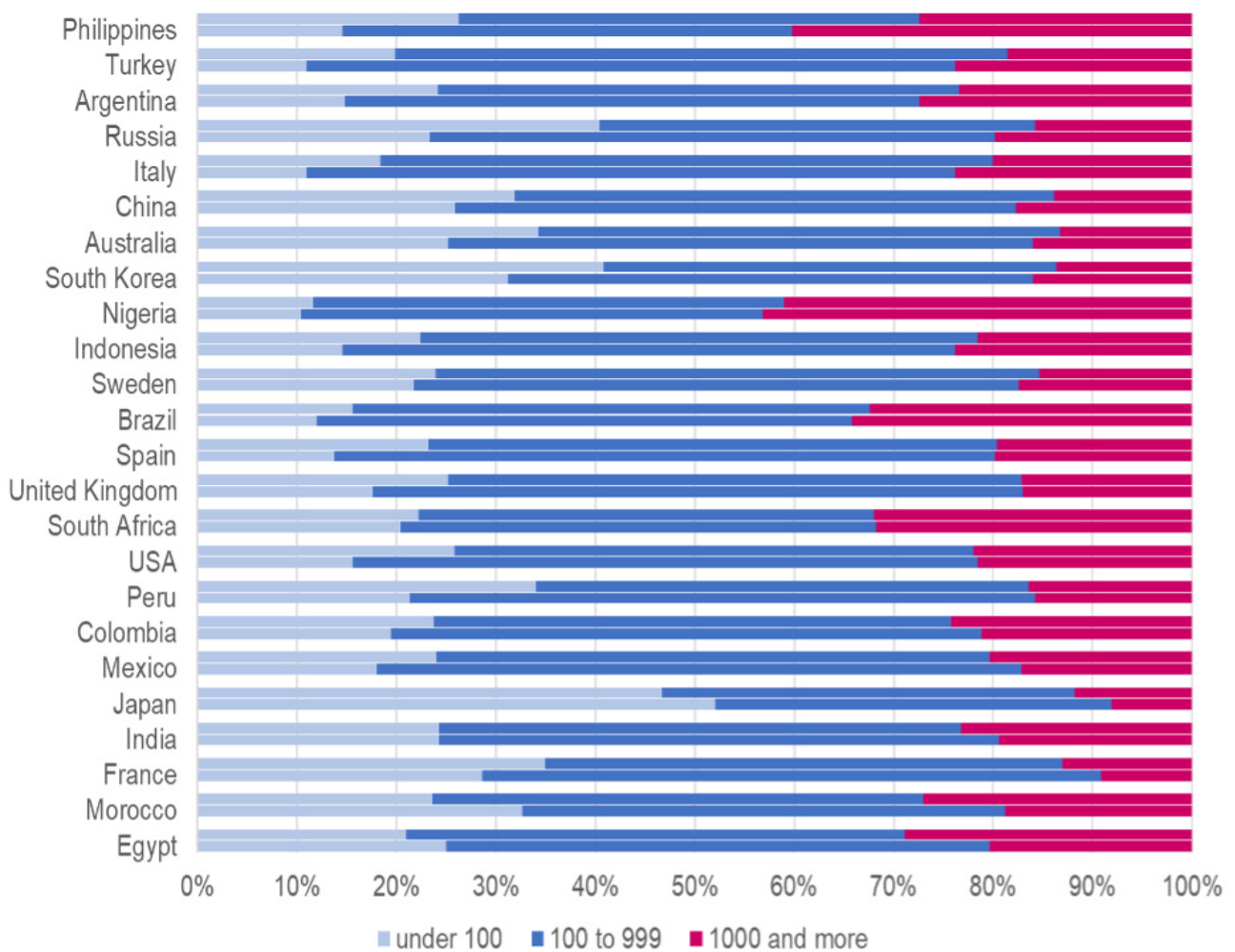
The following figure (Figure 8) reflects the number of followers per country and gender. The bar on the top for each country line shows male respondents and the second bar female respondents.

This chart reveals some national differences regarding the number of followers: for example, Nigeria peaks in the category '1000 and more' overall, with a slight majority of female users having more than 1000 followers. This means that gender bias is less relevant, and the ability to

maintain relatively large communities reflects a gender balance in this study.

This is different, for example, in Egypt and Morocco, where a larger disparity existed and male respondents clearly had more '1000 and more' followers. We see a difference as well in France, where female respondents more often had 100–999 followers; however, more male than female respondents claim to have had 1000 and more followers in their social media community. Slight gender differences

**Figure 8** Number of followers by country and gender



also exist in India, where more male than female respondents said they had 1000 and more followers. These slight differences also exist in Mexico and Colombia. However, the analysis of respondents who claim to have more than 1000 followers reveals that in the Philippines, significantly more female than male respondents fall into this category. In Brazil, Sweden, Indonesia, Nigeria, South

Korea, Australia, China, Italy, Russia, Argentina, Turkey, and the Philippines, more women than men maintained social media communities of more than 1000 followers. The graph shows that gender differences hardly exist in Peru, and did not exist in the United Kingdom, the US, and Spain.

These results reveal that, in broad terms and leaving these national gender nuances to one side, a more or less equal distribution of micro-, macro- and super communicators existed across gender in our study. Results also reveal that while gender disparity only reflects nuanced differences, national differences are more obvious. Both male and female respondents from Nigeria clearly had the most followers, followed by respondents from the Philippines.

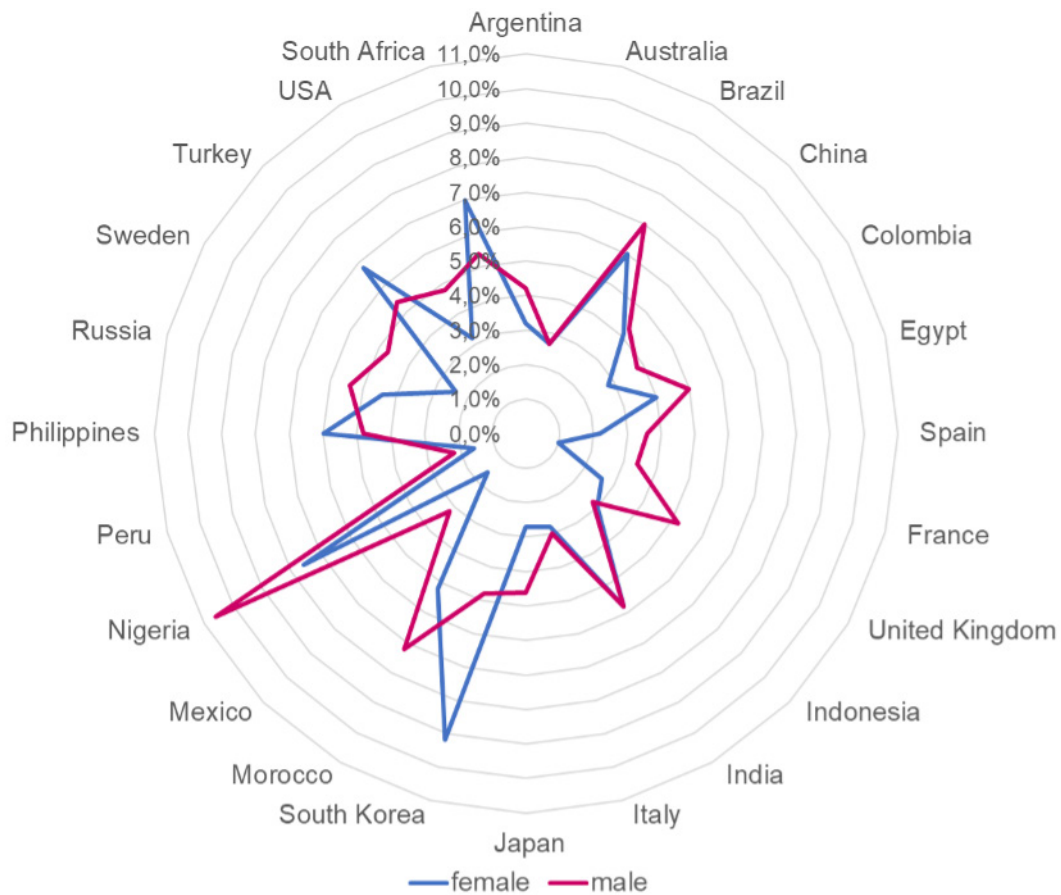
The spider chart below (Figure 9) provides a ‘magnifying’ perspective of the small number of super communicators; that is, individuals with more than 5000 followers. As discussed above, only 4% in the overall sample fall into this category, and as highlighted above, when assessing these super communicator in a gender perspective reveals an interesting insight. Female super communicators are shown in blue, and male in red, which reveal different peaks.

The following chart shows that male and female respondents maintained these large networks, with some differences across countries. While the chart above

combines those with more than 1000 followers into one category to reflect the overall trends, the following chart allows a magnified perspective only on super communicators with more than 5000 followers. Overall, 4% of the entire sample claim to have had more than 5000 followers and this group reveals some national and gender diversity.

Although both genders maintained these large communities, there are some differences. Female super communicators peaked, for example in South Korea, the Philippines, Turkey, and South Africa; while male super communicators did so, for example, in Nigeria, Morocco, India, the UK, and Brazil. While the geographical/political diversity of these anomalies does not immediately reveal the rationale behind their retroversion, it does provide valuable insight at the national level, while also demonstrating the global significance, including specifically the potential role of female and male super-communicators in the development of digital crisis communication strategies in specific countries.

**Figure 9** More than 5000 followers by country and gender



## 2.5 Communicator awareness of misinformation

Overall, respondents included in our survey were 'very aware' (46%) or 'somewhat aware' (43%) of the fact that COVID-19 information on social media/messaging apps could be false. Only 6% of respondents across all 24 countries claimed to be 'unaware,' and almost 4% indicated that they 'do not care' whether content is true.

When assessing the awareness among respondents with different sizes of follower communities shows, however, that to maintain a community of more than 5000 followers seems to be associated with some responsibility for content that is shared and communicated in such a large network.

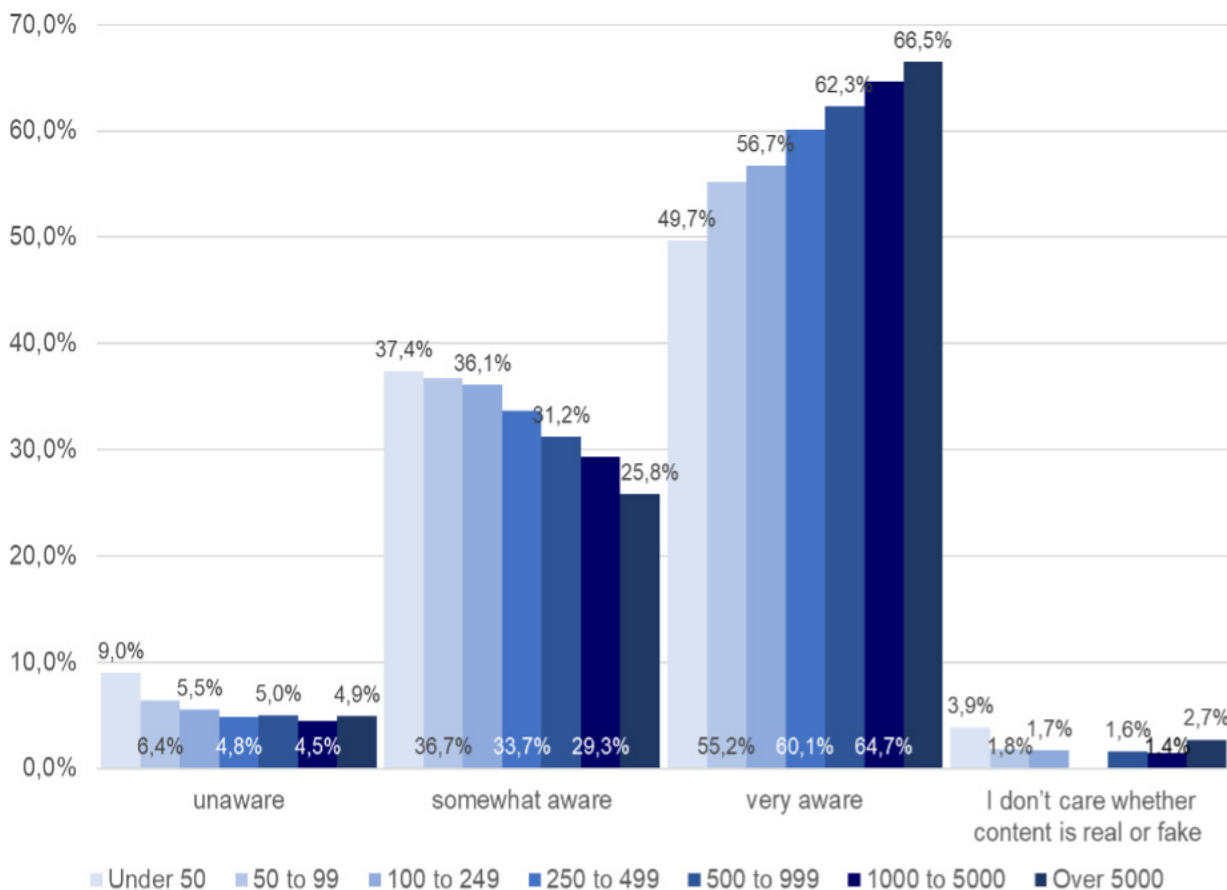
A majority of respondents, 54% of the 4% in the overall study who are super communicators; that is, had more than 5000 followers, claimed to ensure that information correct 'all of the time' before sharing. We also identify awareness of the importance to ensure to share correct content among those with fewer than 50 followers.

In contrast, of those who had between 250 and 499 followers, only 38% said that they ensured that content was correct 'all of the time.'

In addition, 30% of those 4% in the overall sample with more than 5000 followers said that they 'report' false content, compared to 21% of those who had a much smaller community, such as those that had 250–499 followers. Furthermore, 57% of those with 5000 and more followers said that they were 'very concerned' about fake news being shared, compared to 40% of those with a community of 250–499.

Those who had 1000–5000 and over 5000 followers revealed similar views on 'making sure that content is corrected before sharing,' with roughly 50% in each group making this claim, and the awareness of 'fake' news (roughly 65% in both groups).

**Figure 10** Number of followers and awareness of fake news



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## 2.6 Communicator and their sources

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For those who maintain a community of 5000, this comes with certain responsibility in relation to the careful checking of correcting content before sharing with the community. This responsibility also includes, as our results show, a specific information-seeking behavior. Respondents with more than 5000 followers were actively seeking news and information about COVID-19 almost simultaneously from several credible sources: they said that they consulted the following sources where they 'go first' for COVID-19 updates and information: 'national newspapers, television and radio' (46%), they actively used search sites (43%),

checked the WHO's social media content (41%) and used international newspapers (40%). This list of top-four sources which were used by those with more than 5000 followers was also associated with a set of social media sources: social media content by 'my government' (34%), social media content by traditional media (37%), and social media content by science and health experts (35%).

However, 18% of super-communicator, those who had 5000 and more followers, also said that they used 'social media content by celebrities and influencers.'

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## 2.7 Alternative movement leaders and religious leaders as a source

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Sixteen percent of the group of super-communicators – 4% in the overall sample – that claimed to have more than 5000 followers use 'social media by alternative movement leaders' as a source for COVID-19 information, compared to 6–14% in smaller follower communities. When comparing the role of 'religious leaders' for COVID-19 information among those with 5000 followers and more, 17% of super-communicators were from UK, 15% from India, 14% from the Philippines, 13% from Japan, 12% from Nigeria, 11% from Australia, 11% from South Africa, 11% from Turkey, 10% from Indonesia, and 10% from Brazil.

The rest of the countries ranged much lower; that is, under 10%. Although it is important to be careful with generalizations, our results reflect on one hand the

responsibilities those communicators with 5000 and more followers adopted; however, as the case from India specifically shows, 'religious leaders' were seen by a significant number of the 5.8% of super communicators in India as a trusted source.

Although these are small numbers, the fact that even 20 individuals with more than 5000 followers were capable of significant opinion leadership reflects the need to pay more attention to the role of communicators within even small numbers of follower communities. The fact that crisis content can easily spread through rough 'loops' of peer sharing, cascading from community to community across platforms, reveals the significant roles of micro, macro and super communicators as opinion leaders.

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## 2.8 Content sharing: scientific content and 'relevant to me' rank highly across all communicator levels

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When it came to COVID-19 information and the top preferences of content they shared, scientific content ranked high among micro-, macro- and super-communicators. The significance of sharing scientific content at the time of a heightened health crisis is obviously ranked high by those who maintain any size of community. For example, if respondents had under 50 followers or more than 5000, content that is 'scientific' was on top of their list for sharing with their communities. This was followed by crisis content 'relevant to me' with the potential aim to relate back to the personal perspectives and shared perceptions within their follower communities.

However, while these two content categories were on top among communicators of all community sizes, differences emerged in the additional ranks of content from rank three onwards.

Micro-communicators, or those who had between 100–499 followers, ranked 'includes an article' and content that 'is concerning' third and fourth. The top content that they shared was scientific, then, with some distance (10% distance), 'content that is relevant to me.' The third rank, again, with some distance, was 'includes an article'.

Super communicators – those with more than 5000 followers – ranked ‘content that is concerning’ third (31%). Other content categories were also ranked around 30%, such as sharing content that ‘includes a video,’ ‘includes an image,’ and ‘includes an article,’ ‘tells a story’ and ‘includes an infographic,’ ‘has a lot of shares,’ and ‘creates emotional reactions.’

These content formats seem to reflect a quasi-professional perspective in the how they managed crisis information among their large follower groups.

The option for COVID-19 content to share which involves an ‘infographic’ was relevant for 23% of those with 5000 followers and more, while this option was only of interest

to 10% of those who had fewer than 50 followers.

When it came to trust in sources, we see an interesting disparity among those with 5000 followers or more. Asked for the sources they trusted, those with 5000 and more followers ranked ‘educators’ on top, followed by ‘television,’ ‘newspapers,’ ‘radio,’ ‘science and health experts,’ and ‘search sites.’ However, when asked who they ‘highly trust,’ reveals that a large group only highly trusted information from the World Health Organization (WHO) (53%), and ‘science and health experts’ (50%), followed by ‘television’(30%), ‘family’ (29%) and ‘my government’ (28%).

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## 2.9 Communities, followers and regional contexts – three cases

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In order to illuminate these outcomes in light of specific national contexts of social media practices, we focused on three very diverse countries: Nigeria, India, and Brazil.

### Nigeria

As is argued in current scholarship from Nigeria, the internet, and particularly social media access, is transforming African societies, such as Nigeria. As scholars note, ‘citizen journalism, whether through Facebook or Twitter or other platforms such as digital-born newspapers, appears to have established social media as influential channels of communication to complement the old traditional media’ (Olaniyan & Akpojivi, 2021<sup>18</sup>). Consequently, many Nigerian citizens have embraced social media because it enables them to self-publish and access alternative news stories. ‘By embracing digital content, they are championing issues that mainstream media ordinarily would have ignored, forcing small changes in public accountability and possibly a new political culture that empowers ordinary Nigerians in new ways’ (Olaniyan & Akpojivi, 2021). Social media have become core platforms for civic interaction, primarily among young adults. Nigeria is the most populous country in Africa, with a population of 210,834 million (as of May 2021), half of which are young people under the age of thirty. This ‘youth bulge’ is common in many African countries, and demonstrates the necessity of considering the digital behaviors and interactions of young people in Nigeria when developing crisis communication strategies.

Our study reveals interesting use patterns of platforms related to the size of social media communities among

Nigerians aged 18–40 years old. These results indicate contours of specific roles and diverse online behavior of individuals who act as communicator managing different sizes of follower communities. Those with large follower numbers are extremely active, are heavily using several platforms intensely in parallel, while those with small numbers have a preference for one or two platforms. For example, 86% of those with very small communities (50–99 followers), used WhatsApp, followed by Facebook (66%) and Telegram (54%).

However, those with 250–499 followers revealed a more diverse use of platforms – still favouring WhatsApp (87%), followed by Facebook (83%). They also used Instagram (67%) and YouTube (60%). Those with 1000–5000 followers engaged very actively with WhatsApp (94%) and Facebook (90%), as well as Facebook Messenger (79%), Instagram (76%), and Twitter (73%). Finally, super-communicators with more than 5000 followers also preferred WhatsApp (87%), but also engaged heavily with other platforms, including Twitter (80%), Facebook (79%), Instagram (79%), Telegram (77%), Facebook Messenger (74%), and YouTube (64%).

When it came to the question of COVID-19 content and what type of content they shared, Nigerian super-communicator (more than 5000 followers) primarily said that they shared information that was ‘relevant to me’ (52%), ‘is concerning’ (47%), followed by content that is ‘scientific’ (46%) and ‘includes a video’ (40%). When asked which sources they ‘highly trust’ these were the WHO (78%), science and health experts (58%), and top results on search sites (42%). Around 21% said that they highly

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<sup>18</sup> Olaniyan, A. and Akpojivi, U. (2021) ‘Transforming communication, social media, counter-hegemony and the struggle for the soul of Nigeria,’ *Information Communication and Society*, 24(3).

trusted 'religious leaders' and 15% 'alternative movement' leaders. While 48% of this group of super-communicators with more than 5000 followers was 'optimistic about the future,' they also noted that they had stopped paying attention to news and information about COVID-19 in general (46%), they strongly felt that all information 'is the same to me' (45%) and that COVID-19 content was biased (45%).

Those with smaller groups of followers had slightly different sentiments. For example, a large proportion of those with communities of 250–499 felt 'that the media is not telling me everything' (39%), that 'my government is overreacting' (35%) but only 29% felt that 'all information on social media is the same to me,' and only 28% had stopped paying attention to news and information about COVID-19.

When it came to the awareness and the sharing of 'fake' news, 82% of those from Nigeria who had more than 5000 followers said that they were 'very concerned,' while 81% of this group were also 'very aware' of misinformation and fake news. Of these, 81% claim that they had 'shared content with incorrect details at least once; and 58% made sure that 'content is correct before sharing;' and 97% stated that they had corrected content if they noted that it was false. These results reflect the responsibility 'super' communicator in Nigeria adopt.

Based on these outcomes, it could be argued that those with 5000 and more followers take on active roles as communicator; they were aware of how to share content in emotional and personal terms, they were aware of the ambiguity of social media content and other types of digital crisis information, and were taking a somewhat neutral attitude by being optimistic about the future, but also critically reflecting various types of information; however, strongly trusted the WHO.

## India

In India, communicators revealed a different pattern. The group with only 50–99 followers predominantly used WhatsApp (73%), followed by YouTube (55%). Those with a micro size of social media community followers of between 500 and 999 engaged in Facebook (84%), WhatsApp (81%), and less so on Instagram (78%); while those with more than 5000 followers used Facebook (77%), WhatsApp (77%), and Instagram (74%) almost simultaneously.

While in Nigeria, those with 5000 and more followers shared information that was somewhat subjective and emotional, super-communicator in India shared content that was 'scientific' (67%), followed by 'concerning' (62%) and on rank three 'includes an image' (37%). When it came to interest in COVID-19 content, those with more

than 5000 followers said that they were interested in WHO health directives (74%), and information about a vaccine (67%).

It is important to distinguish between sources they said that they 'highly trust' and more generally 'trust,' which reveals a quite different pattern. 'Micro' communicators who had between 500 and 999 followers said that they highly trusted the WHO and science and health experts. When it came to more general trust in sources about COVID-19, this group said that they trusted 'educators' (47%), 'radio' (46%) 'newspapers' (46%), 'top search sites' (44%), and their social media community (39%).

Macro communicators, those who had between 1000 and 4999 followers, said that they more generally 'trust' on rank 1 'radio,' followed by 'top search sites,' and newspapers and – interestingly – 'educators,' television and 'my government.' The WHO did not rank highly in sources they more generally trusted. However, when asked who they 'highly' trusted, a large majority of 68% of those with 1000–5000 followers stated that this was the WHO, followed by 'science and health experts,' (60.7%). The next set of highly trusted sources ranked much lower. 'My government' was a highly trusted source by 41% of those with 1000–5000 followers, and other options ranked much lower.

## Brazil

With 6.5% of respondents stating that they had more than 5000 followers, Brazil was also a highly 'networked' demographic within our study. Similar to many low- to middle- income countries, the most commonly used social media platform among super communicators in Brazil was WhatsApp (94%), followed by Instagram (85%), YouTube (82%), and Facebook (72%).

Those Brazilian respondents who had more than 5000 followers were very much concerned about the sharing of fake news, with 77% stating that they were 'very concerned,' as compared to the average of 61%. Similarly, Brazilian super communicators said that they were far more likely to make sure that information was correct before posting, and reported misleading content. Interestingly, Brazilian respondents with fewer than 1000 followers indicated that they were more likely to ignore false digital information, while those with more followers said that they were more likely to alert the relevant social media channel. Awareness of the existence of fake news was significantly lower than average in respondents, with fewer than 100 followers. At the national level, this suggests both an encouraging shift of the most networked towards truth, and the need for increased digital literacy for those with limited engagement.

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## 2.10 Takeaway

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While much attention has focused on large-scale influencers, more attention is required to assess the practice of those who have smaller, often personalized and tightly knit communities of, for example, up to 99 followers and individuals who had between 100 and 999, 1000 and 5000 and more than 5000 followers.

Individuals who actively maintain these groups have significant roles as gatekeepers and opinion leaders, and provide emotional support at the time of a heightened health crisis which was the time when our survey was conducted. Our results reveal that individuals – especially with large number of followers – seem to be aware of this responsibility, which is reflected in the way they tackled fake news and misinformation, and the type of content they select to share. The largest group that stated they had only 1–50 followers was from Russia and Japan, followed by South Korea. Overall, respondents from most countries had a ‘solid’ community between 100 and 999 and 1000–5000, with a small group claiming they had more than 5000 followers.

Only a small number of governments has so far employed a communicator to be included in crisis response. While some governments use large-scale; that is, top influencers to engage in crisis communication, communicators who can target smaller, specific communities have been so far rarely considered to support crisis communication. However, when including social media as sources of crisis information, it is important to also incorporate micro-, macro- and super-communicators, to make crisis content cascade across groups of fewer than 100 to other social media communities in the same way than in communities with more than 5000.

Overall, the role of influencers, but also communicators, to engage in communicating health restrictions and to communicate misinformation requires some attention.

Given the role of influencers and communicators within the transnational social media sphere, attention is required to provide measures to engage with these groups, provide digital literacy approaches and communicator training. Because everyone can be a communicator in a health crisis, the focus on platforms and platform regulation is not enough to respond to the emerging sphere of misinformation. Digital literacy training for crisis communicators could be a key element of health crisis response strategies when addressing future digital generations on an international scale.

# 3



## **INDIVIDUAL CRISIS NARRATIVES – IN TIMES OF SUBJECTIVE CONTENT LOOPS**

Photo by Robin Worrall on Unsplash

While in past decades, national media had the leading role in crisis information, this role is challenged by digital communication, which enables continuous interaction with a great diversity of sites and the creation of – through this process – an individual crisis ‘narrative.’

Social media and other platforms use algorithms to select,

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## 3.1 Background

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filter, and rank content in order to expose individuals to specific content, with the aim of keeping users engaged in content aligned with their interests. These filtering processes work on numerous levels. For example, some social media platforms push content to a user not only relating to that user’s post history, but also to that user’s social media friends. Through this process, they connect content to the level of popularity of issues within specific social media communities. Social media platforms also ‘boost’ specific content a user is most likely to be interested in, and hide content where, based on past behavior, there is a high probability that the user will not engage.

Ranking ‘signals’ or filter metrics used are set, for example, based on comments, ‘likes,’ and interaction with page content shared in one’s community. In the case of the multi-platform conglomerate Facebook, these metrics are gathered across all Facebook owned platforms: WhatsApp, Instagram, the Facebook platform, and Facebook Messenger. Interactions, such as replies to comments on a video who users interact with when content was posted, what technology (what type of phone, internet connection) is used, sharing of links on Messenger, and so on are traced by platforms to create highly detailed user content metrics, in addition to metadata, such as metrics of users’ devices, and so on.

In February 2021, Facebook tried to implement a new a new privacy policy where WhatsApp would ask its users (about 2.5 billion worldwide) for permission to share personal data such as phone numbers, contacts, IP addresses, and locations with Facebook. Given the wide public debate, and because users rapidly migrated to other smaller – non Facebook-owned – platforms, such as Signal, Facebook reversed the policy in May 2021. However, does not mean that the Facebook conglomerate as well as other social media platforms do not use deep tracing to provide highly individualized content to users.

While Facebook as the dominant global monopoly is in the spotlight of public discussions, other, smaller social media platforms, splinter platforms, (see Section 1), also engage in data tracing to produce ‘optimized’ individualized interactive metrics and data profiles of users.

Social media access is today possible for young adults across most societies – if they have a smart mobile device available. However, digital policy approaches which aim to

protect users, enable privacy rights and begin to address platform regulation are mainly developed in Western world regions. While the digital divide in terms of access to smart mobile phones is slowly closing, imbalances concerning the rights of digital citizens are opening up further, are creating imbalances across world regions. This issue requires some attention on the international digital policy level.

The regions where advanced regulatory approaches are in place and quite specific to at least target some of the procedures of capturing user profile metrics and other privacy issues are, for example, the European Union and the UK. For example, the General Data Protection Regulation (GDPR) in the European Union outlines privacy of social media users and considers privacy protection broadly, emphasizing the rights of the ‘data subject’ within this complex data ecosystem, which includes social media and other data providers, services, and platforms.

The phenomenon of algorithmic selection of interactive metrics, and the selection through other metrics of highly individualized content signifies the opportunities and automated restrictions of content presentation on an individual platform a user is exposed to. Opportunities of such preselected content are that users can engage with content they are interested in; however, this also means that they are cut off from other potential content perspectives. In this sense, individual social media users are engaging with a personalized limited communicative environment in the context of a crisis, such as the COVID-19 pandemic.

These issues are relevant to our study because social media algorithms limits a user to a specific crisis content horizon even when searching for crisis information. Once a user’s content selection and ranking is set by algorithmic filtering, it creates an advancing self-referential loop dynamic as the user engages with similar types of crisis content and interacts with peers who have similar interests. Through this behavior, a highly subjective communicative crisis horizon is created that is not only affirming opinions, but is also continuously reassuring behavior.

While these issues are addressed in scholarship in times of, for example, election campaigns. However, the outlined ‘looping’ dynamics and – in consequence – the formation of subjective crisis horizons have implications

for COVID-19 communication on a global scale. These interactive processes create and stabilize certain sentiments and perceptions which are, through content selections, continuously revised and regenerated along a specific metrical algorithmic scope within this subjective 'loop' structure. The result is that, as various studies reveal in contexts of political communication, for example, individuals might rather engage with opinion-confirming content than with opinion-challenging perspectives. Consequently, and from a broader societal perspective, these individualized communicative loops could produce individual segregation, leading to polarization; for example, of political debates – processes which fracture and unbalance public debate in democratic societies in times of a health crisis. As has been pointed out, these

loop formations are relevant to the individualization of crisis communication. Given the globalized reach of social media, content is generated across an international scope to provide individualized content loops. In this sense, we are seeing a process of individualized globalization of crisis communication with implications on national crisis responses.

Studies address these phenomena in 'normal' times, but these issues require special attention in times of a global pandemic. While public debate addresses misinformation delivered on social media and other platforms, the fact that users are engaging with a subjective, limited crisis information environment which constitutes a loop narrative is an important issue to address.

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## 3.2 Indications for digital literate crisis communication: breaking out of the algorithmic loop

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Our study reveals an interesting pattern of information-seeking behavior among respondents from all 24 countries, which indicates that many respondents are in fact aware of the restricting, algorithmically set content loops of their social media community, and seem to have developed strategies to break out of their content loop to actively search for information elsewhere.

Results indicate might be exposed to content loops, but respondents are no longer passive receivers of preselected content. Our study produces insight into the way how they develop strategies taking them out of algorithmic loops to actively navigate across a multiple source environment. Individual social media communities have specific roles in normal times, and numerous studies identify these roles in relation to social communication; for example, in contexts of building community resilience (see Rachunok et al., 2021<sup>19</sup>). In crisis times, and especially in times of a *heightened* national health crisis in a global pandemic when this study was conducted, strategies respondents in our survey seem to develop to move beyond social media loops: (1) to explore a great diversity of crisis information sources; and to actively engage in (2) additional search on

search platforms; and (3) interact on specific social media content sites with transnational neutral actors, such as the WHO and scientists to produce their own crisis narrative. Some scholars argue that in normal times and, for example, in contexts of political information, 'for most users, exposure to information about politics and public affairs in social media is not their primary intention when accessing their social media feeds. In other words, most users encounter such information incidentally' (Lee & Xenos, 2020: 2<sup>20</sup>). This assumption characterizes the incidental type of information behavior among many social media users in normal times when they 'just' come across a meme, a clip or a link that peers share.

However, our study reveals that in *heightened* crisis periods, this information-seeking behavior is different. It seems that their own social media community is less relevant and even not really trusted. As our results below indicate, respondents of our survey across the 24 countries actively engage in seeking updates and crisis information elsewhere which reflects significant digital crisis communication literacy.

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<sup>19</sup> Rachunok, B., Bennett, J., Flage, R., Nateghi, R. (2021) 'A path forward for leveraging social media to improve the study of community resilience,' *International Journal of Disaster Risk Reduction*, 59. 102236.

<sup>20</sup> Lee, S., Xenos, M. (2020) 'Incidental news exposure via social media and political participation: Evidence of reciprocal effects,' *New Media & Society*. 00(0) 1-24,

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### 3.3 From incidental news exposure to active engagement in a multi-source environment

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Overall, in times of a *heightened* health crisis, respondents engage with social media; however, with social media content produced by internationally trusted and neutral sources. The incidental exposure to content produced by peer-to-peer social media communities seems to be less relevant. Instead, respondents actively navigate to a diversity of sources. Our study reveals that the incidental exposure to news, often highlighted in research as a new type of news consumption among young social media users, is – in a global health crisis – replaced by active engagement with a diversity of sites, to deliberately leave their social media community loop in order to explore numerous crisis perspectives.

We have identified broad patterns of such a figuration of active navigation across the multiple-source environment of young adults with and beyond social media. Overall, results indicate a significant degree of digital literacy. Results also show degrees of skepticism potentially caused by the sheer number of voices competing daily for crisis updates within the international interactive spheres young adults engage with – wherever they are, just using a mobile smart device.

For example, when respondents across all countries were asked, 'To which of the following sources do you go first for COVID-19 information and updates?,' and they were presented with a number of multiple choice responses of diverse sources, respondents between 18–40 years across the 24 countries revealed an interesting intertwined information-seeking behavior beyond their social media community. The aim of this question was to understand which their most important sources are when obtaining new crisis information.

The sites where they went to 'first' when seeking COVID-19 information and updates were national newspapers, television, and radio, accessed first by 43% of respondents across all 24 countries and age groups. This is understandable, as information about the local community where they are physically based is crucial in a health crisis. Across all countries, 36% of respondents stated that they were 'actively searching using search sites' and 35% used international newspapers, television and radio' (35%). They also engaged in a diversity of social media content; that is, social media content from 'traditional media' (34%), 'social media content by the WHO' (31%), 'social media content by science and health experts' (28%), and from 'my government' (28%). As the question asked for the sites where they went first to get updates,

these responses reflect a combination of national media and digital sites. The intention of this question was to assess which source sets their initial crisis agenda.

Despite the very different countries, as well as the broad age group 18-40 years involved in this study, the pattern where they go 'first' to seek crisis information and updates was somewhat identical across the three age cohorts, 18–24, 25–29, and 30–40 years. The only age band specific difference was the role of 'national newspapers, television and radio.' These national media were used in slightly different intensities across the three age bands: 37% of 19–24 year olds used these as their first source when seeking updates. Of the middle cohort, 25–29 years, 44% went to national media first, as did 48% of 30–40 year old respondents. This nuanced difference is expected, because it can be assumed that the youngest age cohorts used traditional media less; however, and importantly, in a health crisis, they still used national media as an important first information source. While 'actively searching using search sites' was the second source by 18-24 years olds with 33% of respondents making this statement, 'international newspapers, television and radio' was ranked second among 38% of 30-40 year olds, followed by 'actively searching on search sites' (37%).

We could argue that respondents seemed to access numerous sources almost in parallel. There were no sources that really peaked; for example, capturing more than 60% of responses as was the case in the mass media age, where national media revealed massive user peaks as a truly national 'mass medium' in times of a national crisis.

Today, we see a long list of perhaps even simultaneously used sites. The long list further confirms the assumption that Millennials and GenZ navigate across an unprecedented seamless globalized multiple source environment. It is an active navigation, also revealed by the high rank of search sites when asked where they go 'first' for updates. and not a passive behavior of information exposure.

Our study reveals that – overall – respondents across all countries, seemed to actively link, contrast and compare crisis content across a universe of individually selected sites, online and offline. They also used co-workers, educators, family (23%), and friends (20%) as 'first' sources. The French philosopher Bruno Latour proposed a theory, called the actor-network theory some time ago. He argues that when seeking information, all types of sources –

human and non-human – need to be understood as interactive ‘agents,’ each changing the process of meaning-making through the specific components incorporated into subjectively created pathways how information is perceived (Latour, 2007<sup>21</sup>). Following Latour, this would mean creating an individual perception of the crisis is influenced by (1) each subjectively actively chosen source – or in Latour’s language, ‘actant’ – but also by the (2) order, the figuration or ‘chronography’ of actively linking these sites to make (3) individual sense of the crisis.

Such production of individual crisis communication narratives within an enlarged globalized multiple-source environment by young adults across countries who have access to smart mobile devices requires attention by national governments and international organizations when drafting crisis response strategies.

The high rank of search sites reflects that respondents had additional individualized information needs or required additional information about what was presented in national media. Despite the fact that respondents are intense users of social media (as the number of platforms used across all countries indicates, see Section 1), it is somewhat surprising that social media content by friends, and overall, their social media community, were not the first sites they went to when seeking COVID-19 information at the time of a heightened crisis. ‘Social media content by friends’ ranks quite low also among 18-24 years olds when asked where they go ‘first’ for updates. Only 14.9% went to social media content by friends in this age group, 16% in the age group 25-29 and 16% also in the age group 30-40 years.

We also offered response options for specific social media content to the question ‘To which of the following sources do you go first for COVID-19 information and updates?’. Responses reveal that ‘social media by traditional media’ (34.2%) was ranked fourth (after national media, search sites, international media, see above), followed by the WHO’s social media sites (31.5%), social media content by science, and health experts (28.8%), and social media content by ‘my government’ (28.2%). The rest of social media sites, such as ‘my friends’ (16.1%), ‘social media content by my family’ (12.8%), but also ‘social media content by celebrities and influencers’ (11.6%) by ‘alternative movement leaders’ (10.3%) ranked much lower.

It is interesting that almost no one claimed to use ‘social networks in general’ as a site to go first when seeking updates on the crisis. This is a somewhat surprising outcome, because it is often argued that social media users remain in their communities to engage with, for example, political information via shared information by peers. This information-seeking behavior seems to change in times of a serious health crisis, where daily updates across a diversity of topics are continuously needed and social networks in general are less relevant.

We also asked where they would go to gain information about vaccination. The question was, ‘When a vaccine becomes available, which of the following sources would you look to first for information?’ The question regarding information about vaccination aimed to assess how respondents looked for deeper insight into a somewhat stable crisis-related issue that does not change day-by-day as other crisis content does and continuous updates are necessary.

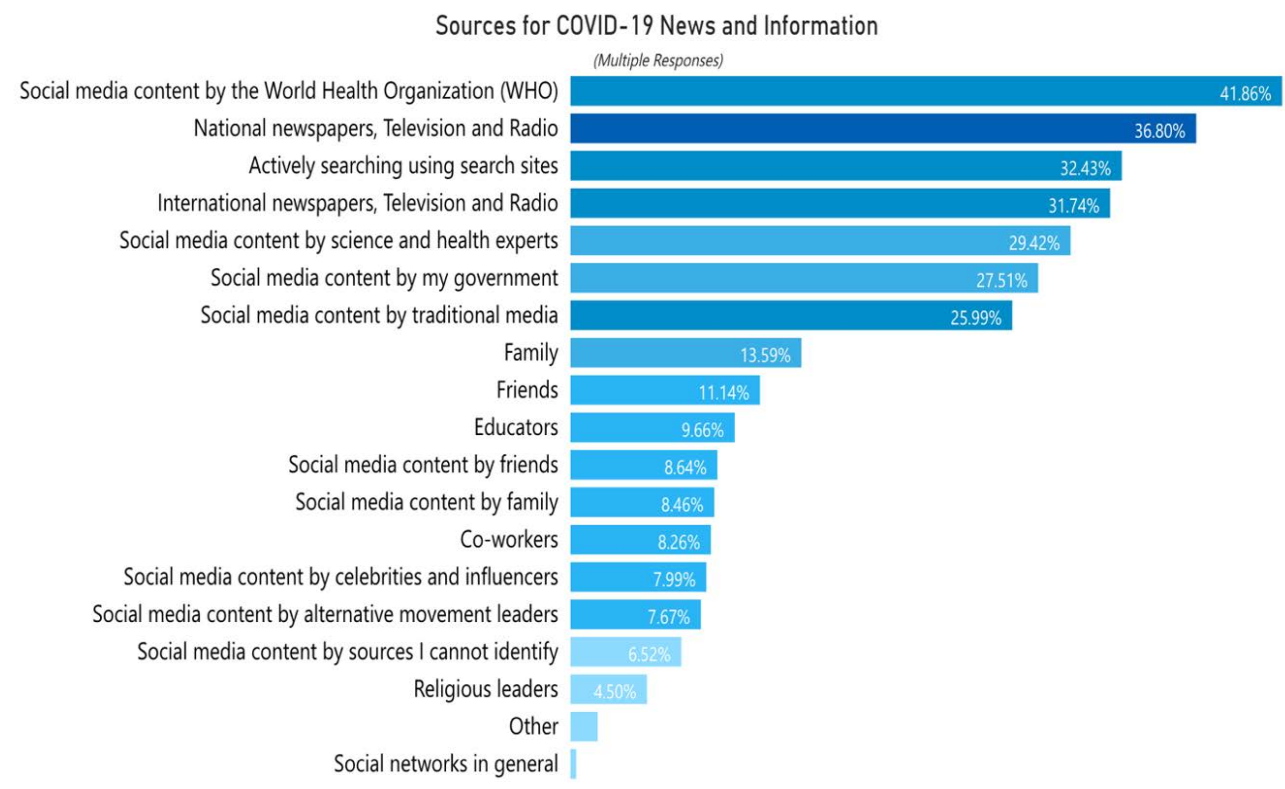
As the graph below indicates, when it came to information about vaccines; that is, potential short- and long-term side effects and other related problematic issues of such a new medication, the social media content by the WHO ranked first (41%) among all respondents. This is perhaps due to the fact that they could directly engage with neutral experts and science content to carefully investigate all sides of the issue. Rank two were national newspapers, television and radio (36%) and rank three was the statement ‘actively searching using search sites’ (32%). However, only a small number indicated that they relied ‘first’ on their own social media community of friends regarding vaccine information with only 8.6% making this statement. This is also an indication for the argument that respondents developed individual narratives, using all types of sites and sources beyond their social media communities.

The question regarding which sources respondents selected first when planning to obtain information about vaccines is insightful, because it involved an information navigation pattern to produce in-depth background details of an issue that promises to be a remedy for humanity, but also includes risks.

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<sup>21</sup> Latour, B. (2007) *Reassembling the Social: An Introduction to Actor-Network- Theory*. Oxford: Oxford University Press.

**Figure 11** When a vaccine becomes available, which of the following sources would you look to first for information?



Entire sample across age groups, gender, and countries.

This information-seeking navigation pattern reveals intertwined core sites in the context of in-depth information-seeking regarding a long-term issue, such as vaccination. The first choice is (1) social media content by the WHO, and this position is potentially related to the opportunity for in-depth interaction with all types of insights and health actors of a 'neutral' organization's social media community. This information-seeking behavior is followed by adopting (2) local national orientation via national newspapers, television and radio, and to (3) then search for further personalized information, and (4) following up with international news media before engaging with social media content, by (5) scientists, and (6) the government. The WHO's social media content was the first site for all age groups to check for vaccination, and there are also no significant differences along gender lines before turning to international media.

However, there were slight differences along a few national contexts: for example, 43% of respondents from Russia ranked search sites first when seeking information about vaccination, followed (with some distance) by national newspapers, television, and radio (31%) and – again with some distance – by the WHO's social media content, which ranked third, with only 26% of respondents claiming to use when searching first for vaccination. National differences are also reflected in responses from South Korea, where WHO social media content was only used by 19%, and search sites, national media, international media, and government social media sites were the first five sites respondents said they would use to gain vaccination information.

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## 3.4 Navigating through the multiple-source environment through layers of trust in sources

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Here we assessed how respondents applied different degrees of trust to potential crisis information sources. These different levels of trust reflect parameter which enable us to assess how they built up their individual crisis communication horizons. In order to identify these layers of trust in nuances, our survey included a question asking respondents to identify the level of trust in sources and they were presented with a list of sources.

Surprisingly, when comparing results across all countries only 9% said that they 'highly' trusted 'their social media community' at the time of a heightened national health crisis when this survey was conducted. Equally surprising is the outcome that only 7% 'highly' trusted 'information from messaging apps' (7%), while the list of 'highly' trusted sources was topped by the WHO in general (45%), 'science and health experts' (43%). A middle field were 'family' (22%), 'my government' (20%), topped results on search sites (15%). Overall across the entire sample, 'religious leaders' (11%) were slightly more 'highly' trusted than 'my social media community.'

As mentioned earlier, results reveal that respondents were active and digitally literate in their information-seeking behavior, and were navigating across the global multiple-source environment to obtain very diverse information and updates about the crisis. They developed their own crisis narratives, and searched actively.

In order to identify the metrics of these subjective narratives, developed within the multiple source environment, we used nuanced parameter of different levels of trust to identify the subjective perception of sources within their complex multiple-source environment.

We asked our participants to indicate their level of trust in fifteen different sources as multiple responses, and to indicate if they 'don't trust,' 'somewhat trust,' 'trust,' and 'highly trust.'

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## 3.5 Sources they said that they do not trust

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Interestingly, an important insight reveals sources they said that they do not trust, which were reported across the entire sample, age group, and gender: 'religious leaders,' who were not trusted by 33%.

On rank 2 of sources they do not trust was 'information from messaging apps,' stated by 26.2%, another interesting sentiment, which indicates a substantial skepticism regarding digital tools. The third source respondents of the entire sample reported that they did not trust was 'my government' (17%) followed by 'my social media community' (16%). This perception was similar across all age groups.

While this general pattern remained more or less stable across countries, there were slight differences across countries. For example, 30% of respondents from Colombia said that they did not trust 'information and messaging apps;' in Egypt 22% said this. One of the sources a majority did not trust in Egypt were 'alternative movement leaders' (21%); similarly, 23% of respondents from India said this.

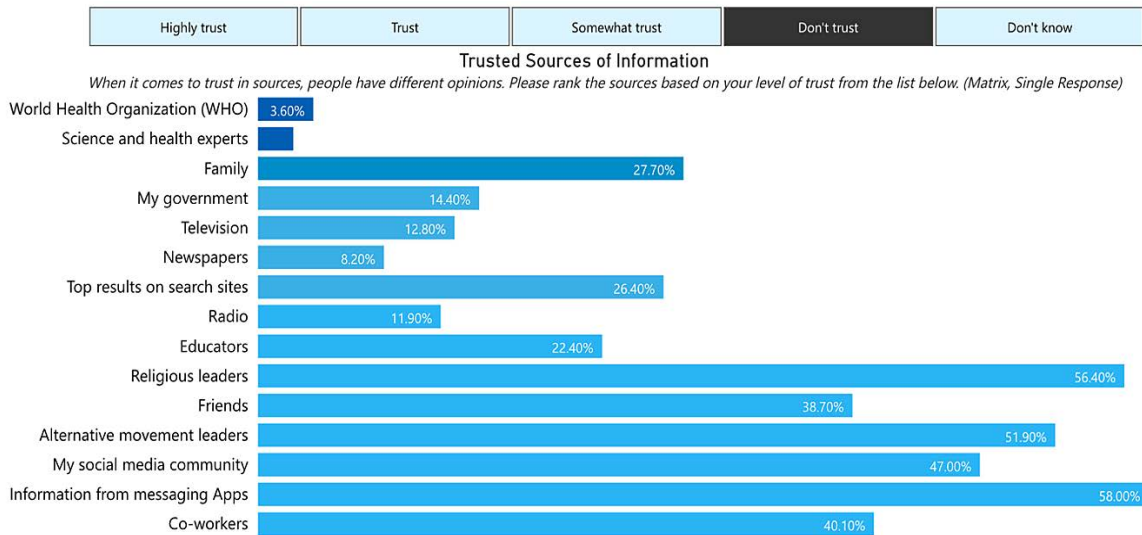
The major source that was not trusted in Indonesia were also 'information and messaging apps' (23%) and in Italy 58% of respondents felt this way. In South Africa 28%, in Spain 39%, in the UK 36% and the US 39% said that they did not trust 'information from messaging apps,' and 29% respondents from the US said that they did not trust their social media community. The top source not trusted by Chinese respondents were religious leaders (26.4%), while all other sources in the 'don't trust' category range much lower, from 3.4% who did not trust 'my government,' 'top search sites' (7.5%), 10.8% 'my social media community,' and 9.9% did not trust 'information and messaging apps.'

Other national nuances are reflected in the tables below, selected across very different world regions: Italy, Morocco, the Philippines, the UK, and Russia, where 44% said that they did not trust religious leaders, and 31% said that they did not trust alternative movement leaders.

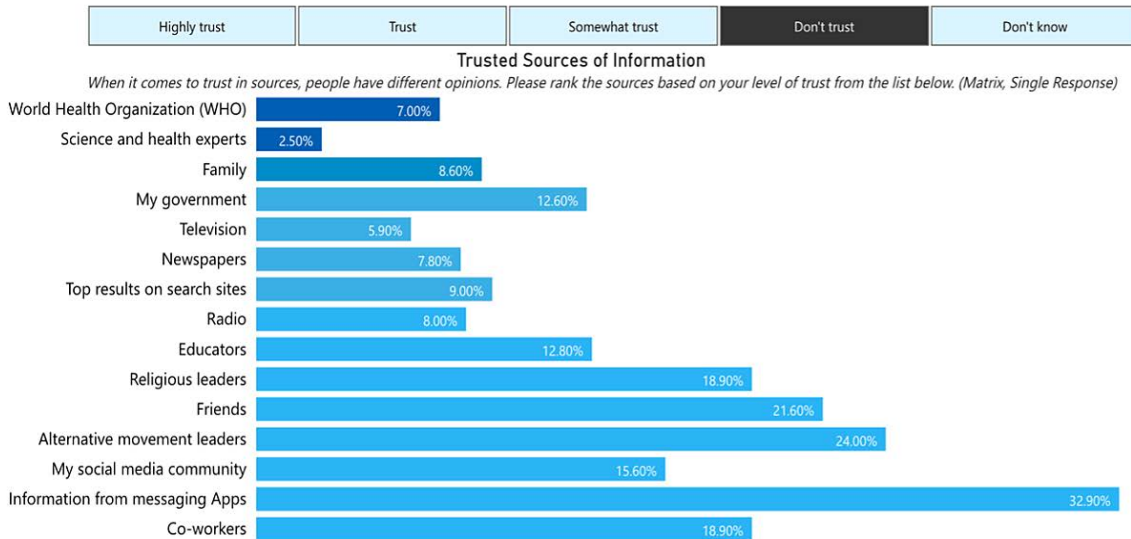
Each of the following graphs reflects a national perspective on not trusted sources.

The insight into the patterns of not trusted sources is a first indicator of how respondents perceived the crisis source environment.

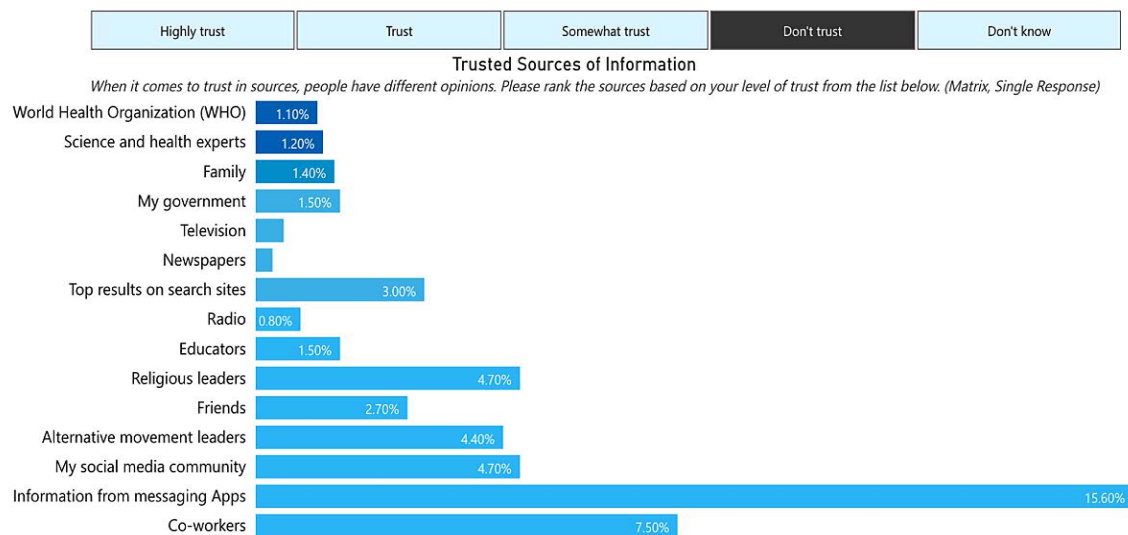
**Figure 12** Not trusted sources of information – responses from Italy



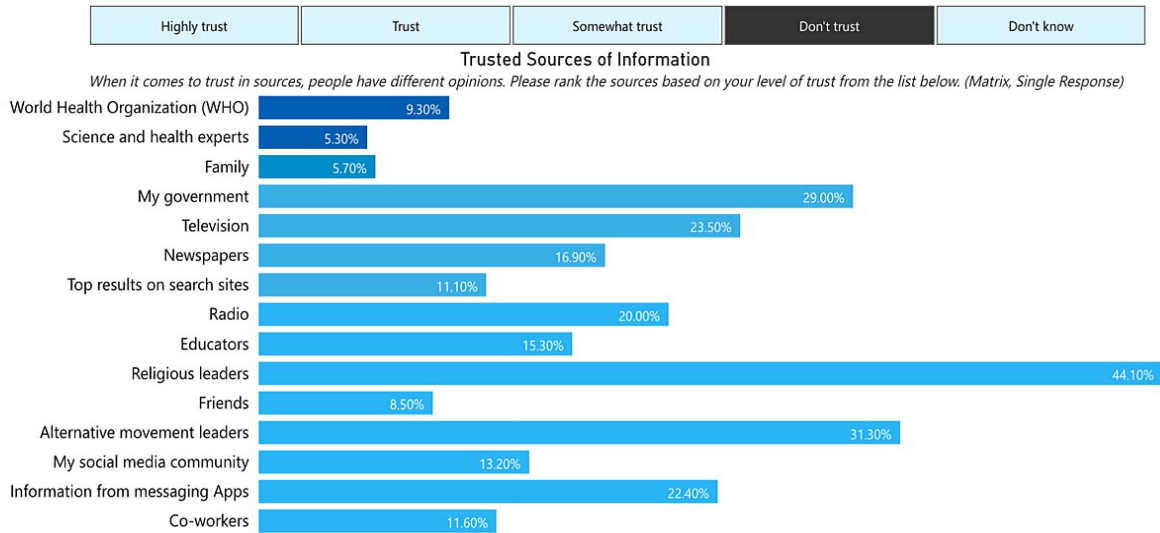
**Figure 13** Not trusted sources of information – responses from Morocco



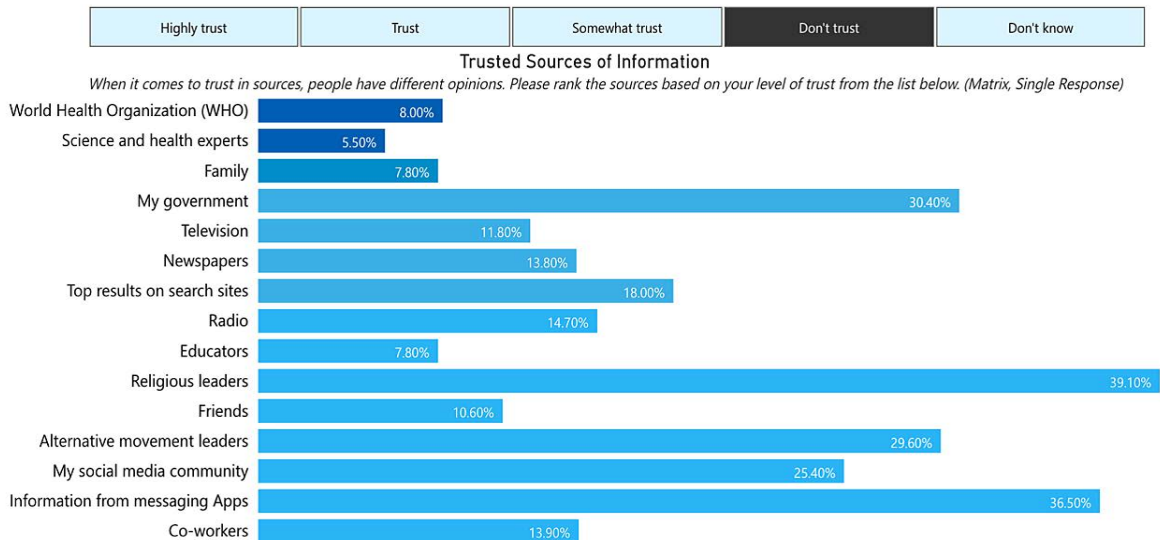
**Figure 14** Not trusted sources of information – responses from Philippines



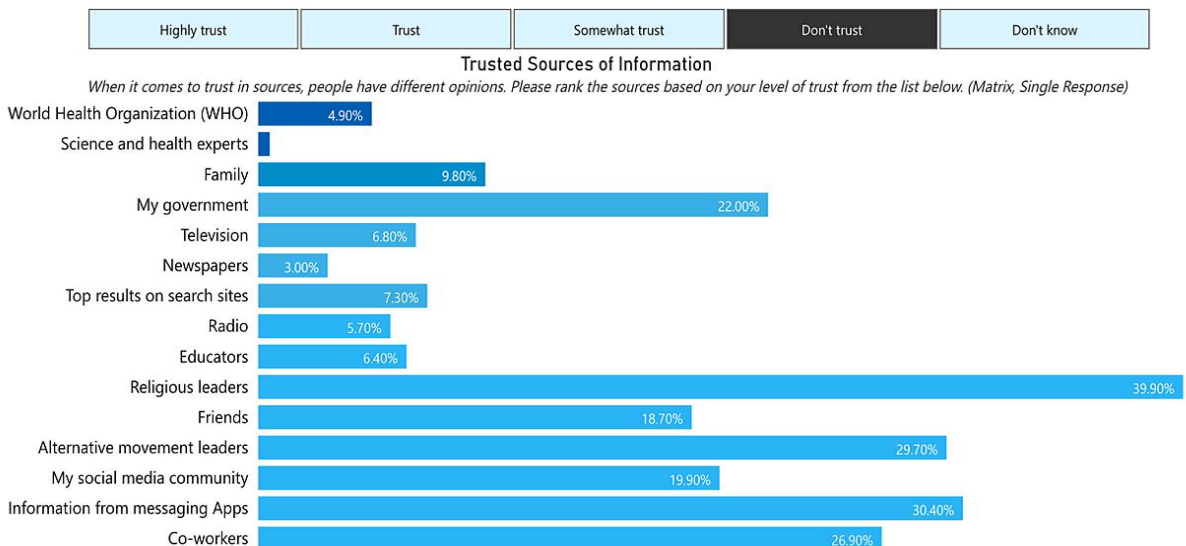
**Figure 15** Not trusted sources of information – responses from Russia



**Figure 16** Not trusted sources of information – responses from the UK



**Figure 17** Not trusted sources of information – responses from Colombia



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### 3.6 Trusted sources in the multiple-source environment: the 'pyramid model' of crisis information seeking behaviour

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We asked the question 'when it comes to trust in sources, people have different opinions' and they were presented with a number of sources. Response options were 'don't trust' (see paragraph above) 'somewhat trust,' 'trust,' and 'highly trust.'

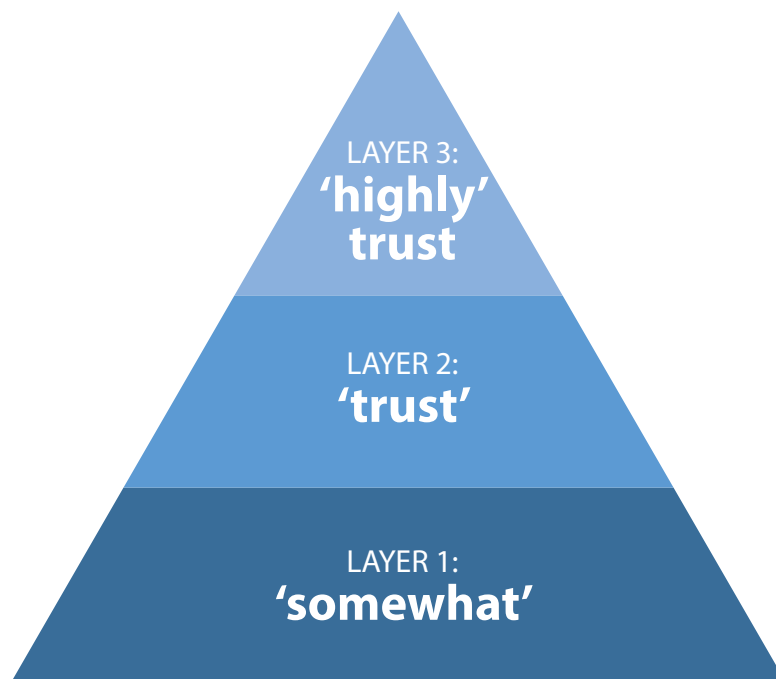
Responses reveal indications of what we call a 'pyramid model' of crisis information-seeking behavior. The broad base of the pyramid are the large number of sources respondents 'somewhat' trust. This segment is broad and indicates these somewhat trusted sources might be part of their individual multiple source environment which they might navigate when seeking broad information.

The middle layer of the pyramid is already smaller and includes some sources they actually 'trust.' The top smallest layer of the pyramid only includes a small number of sources they 'highly trust.' This model reflects not only their individual scopes of trusted sources but also a small number of sources they 'highly' trust at the time of a heightened health crisis.

Our study did not ask how respondents then contrasted and compared vertically across these layers and we can only assume how these three layers interact. For example, it could be guessed that information obtained from the 'highly' trusted source might provide insights which were then used to compare to information by 'trusted' sources. It could also be assumed that information obtained from the 'highly' trusted source caused other sources to be only trusted 'somewhat.' These can only be assumptions, because our survey did not include these types of questions.

However, results clearly suggest a 'pyramid model' of information-seeking behavior along notions of trust. Outcomes reveal different layers of such a pyramid, which are outlined below and graphs are included to reflect national nuances regarding the sources listed in each trust level. Overall, this pyramid model constitutes the parameter of the individually constructed horizons of crisis communication.

**Figure 18** 'Pyramid model' of information-seeking behaviour



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### 3.7 Layer 1 of the 'pyramid model': sources respondents 'somewhat' trust

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The first layer, the base of the individual crisis horizon, are sources they 'somewhat' trusted. 'Somewhat' suggests that these sites are acknowledged as potential information source in times of a crisis and 'checked,' but 'real,' 'highly trusted' information is sought elsewhere.

Assessing outcomes across the entire sample, across all countries and gender, shows that, not media or social media, but rather personal contacts and relations, such as 'co-workers' (46%) and 'friends' (45%) were listed on top in this category of only 'somewhat' trusted sources. 'My social media community' was 'somewhat' trusted by 42.1%. The following sites are 'information from messaging apps' (39.2%), 'top results on search sites' (36.2%) and 'family' (35.7%).

Overall, across the entire sample of respondents in 24 countries, this layer of 'somewhat' trusted sources was quite broad.

However, the level in which they 'somewhat' trust; that is, the pattern of density of this layer of 'somewhat' trusted sources is different when comparing countries.

The category 'somewhat trust' is naturally quite broad and dense, yet while, this was the case in most countries, there are national contexts where sources that are 'somewhat trusted' cluster around four sources, including co-workers

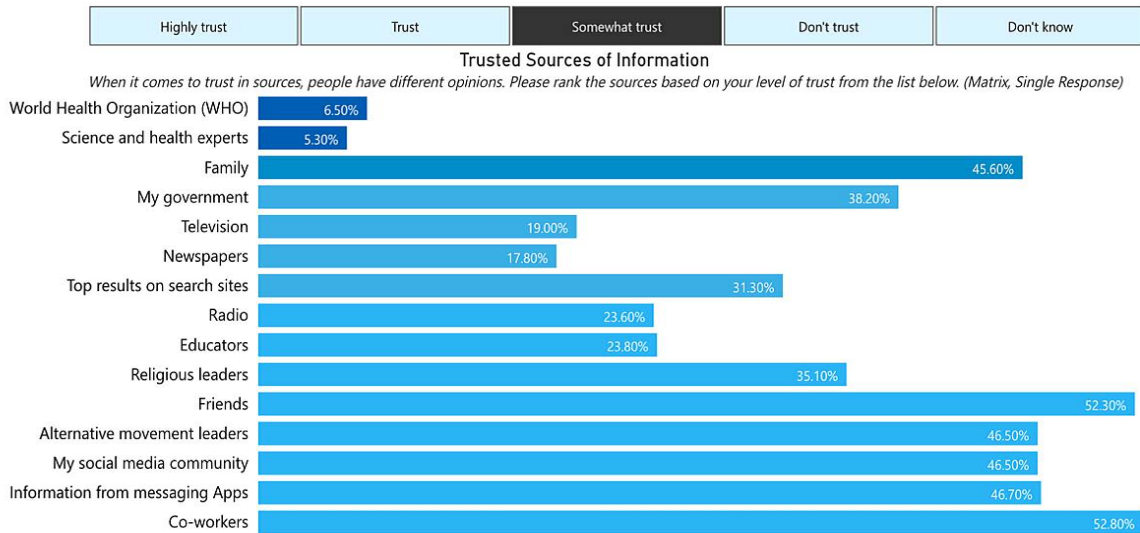
and friends, alternative movement leaders, my social media community and information from messaging apps, as in Brazil, Colombia, Russia and Turkey. See tables below.

Respondents from Brazil said that they somewhat trust co-workers and friends, in addition to their social media community, information, and messaging apps, as well as alternative movement leaders, on almost the same level. These were the key sources in their broader information universe of 'somewhat trusted' sources.

Respondents from Russia listed a large number of sources as part of their 'somewhat' trusted multiple source information environment, as the graph below shows. It is quite dense, for example, in Russia, where respondents said that they 'somewhat trust' a large number of sources, as the graph below outlines, where co-workers rank on top, followed by newspapers 49.1%, 'my social media community,' and information and messaging apps but also 41% say the only somewhat trust 'top results of search sites.' The WHO was 'somewhat trusted' by 29.8%.

In contrast, in Turkey, the top ranks of 'somewhat trusted' sources are co-workers, information from messaging apps, my social media community.

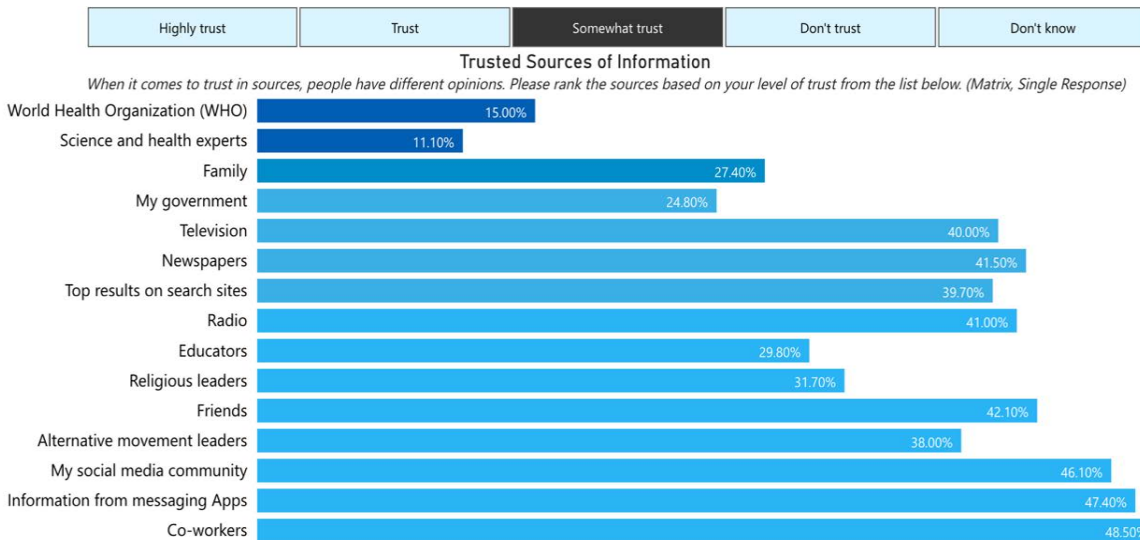
**Figure 19** 'Somewhat trusted' sources of information – Brazil



**Figure 20** 'Somewhat trusted' sources of information – Russia



**Figure 21** 'Somewhat trusted' sources of information – Turkey



### 3.8 Layer 2 of the 'pyramid model': sources respondents 'trust'

This pyramid layer of 'trusted' sources reveals again a different pattern across the entire sample and across countries.

First of all, the role of co-workers, friends, and family are scaled back, and national media emerge as 'trusted' sources, along with science and health experts by a considerable number of respondents.

Across the entire sample, newspapers rose as top sites of 'trusted' sources (40.9%), followed by radio (39.9%), and television (39.9%), educators (39.90%), and science and health experts (39.2%). The next set of 'trusted' sources were 'top results on search sites' (35.9%) and family (32.9%). The trust in 'top results on search sites' also relates to earlier outcomes, where 'search sites' were highly ranked when looking 'first' for COVID-19 information.

The WHO trust level gains momentum as well and the WHO was 'trusted' by 32.5%, and 'my government' by 31.3% of respondents. In contrast, 'my social media community' and 'information and messaging apps' ranked considerable low (28% and 22.1%).

This pattern appears with some nuances across all three age bands of respondents in this study. Even among 18–24 year olds, 'trusted' sources were national media, followed by science and health experts, and the WHO. Their social

media community, and information on messaging apps ranked low as trusted sources. As has been outlined earlier, they were mainly seen as 'somewhat' trusted sources.

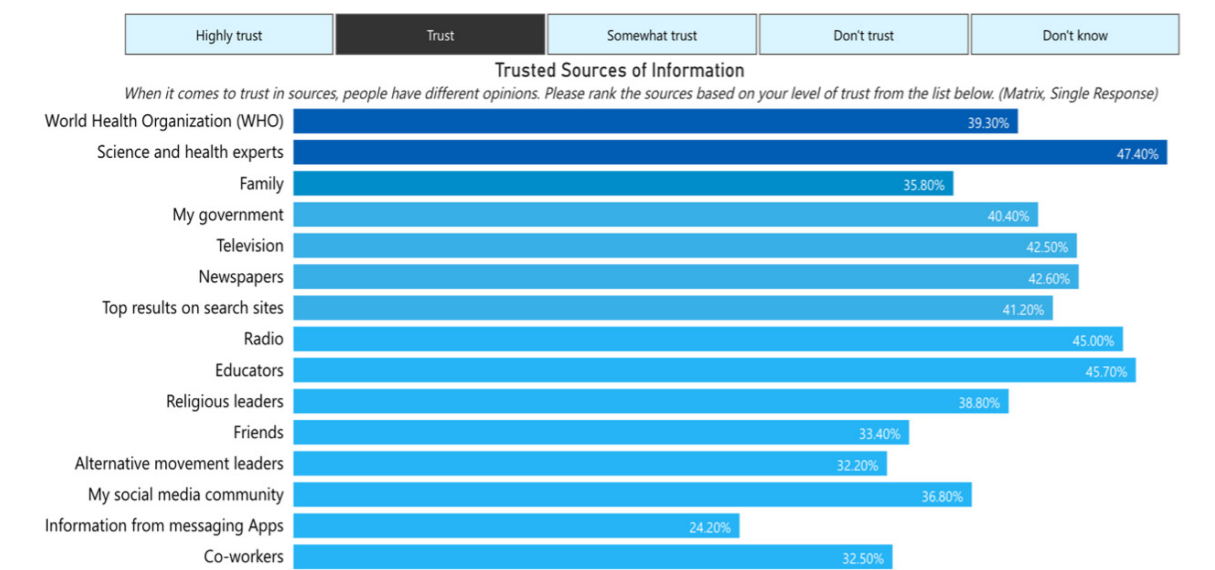
However, again, there were some national differences. While, for example, in Brazil, we see 'trust' of a large number of sources, and national media were at the top rank, such as newspaper trusted by around 58% of respondents and television trusted by 57%; in China, top categories were national newspapers (55.1%), radio and alternative movement leaders (both 46%). In Colombia, the two top ranked 'trusted' sources were newspapers, radio and television and science and health experts. In India, 'educators' were on top, followed by radio.

In Indonesia, radio ranked on top, with 46.5%, in an otherwise quite large universe of 'trusted' sources, as shown in the graph below.

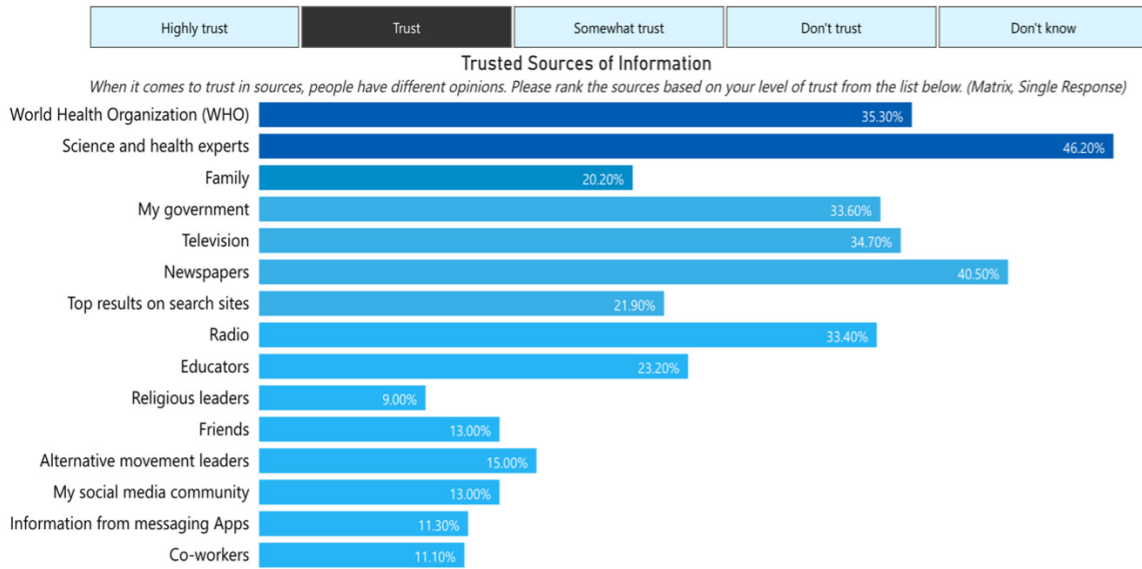
In contrast, in Italy, the list of trusted source was much narrower and centered on science and health experts and newspapers.

In India, a majority of respondents said that they trust national media, educators, search sites and their 'social media community; and 'my government.'

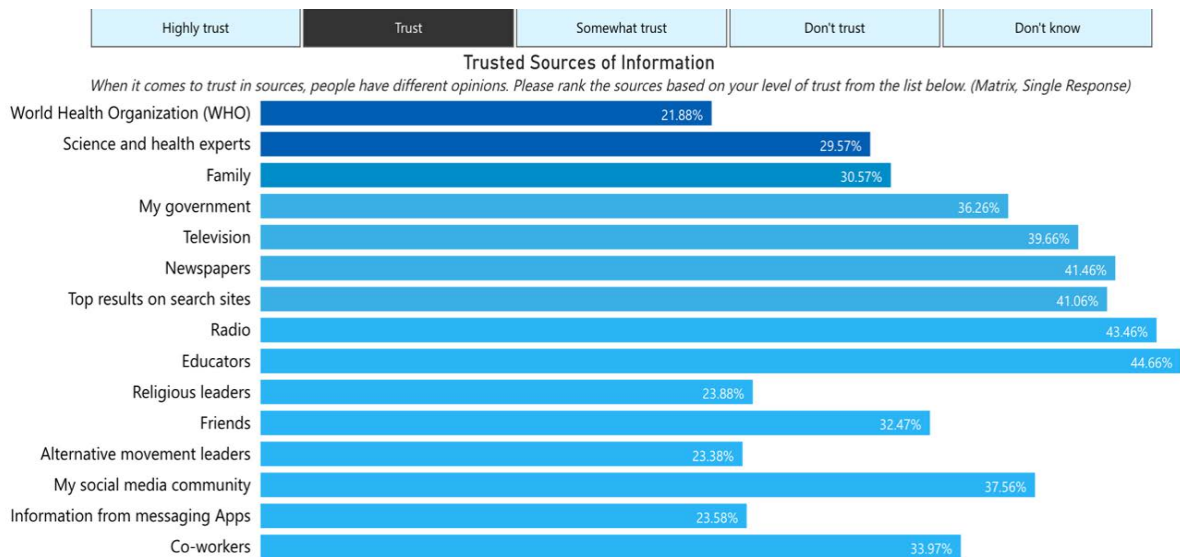
**Figure 22** 'Trusted' sources of information – Indonesia



**Figure 23** 'Trusted' sources of information – Italy



**Figure 24** 'Trusted' sources of information – India



### 3.9 Layer 3 of the 'pyramid model': sources respondents 'highly' trust

When assessing 'highly trusted' sources there were first of all clear peaks, and, second, these peaks remained consistent across all countries.

Results reflect a clear crisis 'signifier' role of the WHO, which respondents across all countries 'highly' trusted (45.4%), followed by 'science and health experts' (43.9%). The next ranked 'highly' trusted source was family (22%) and 'my government' (20%).

When comparing across countries and age cohorts, the WHO and science and health experts continued to rank on the top-two spaces.

However, there are one national differences not changing the high rank of 'science and health experts' and of the WHO but differences relate to other 'highly' trusted sources. For example, in Argentina, the WHO ranked second (29%); while science and health experts peaked,

at 44.2%. Family ranked third, with 18.6%, and media outlets ranked very low, under 10%, as well as 'top results on search sites' (8%), 'my social media community' (4.8%), and information from messaging apps, at only 3%. Co-workers who were highly ranked in layer 2 of the 'pyramid' model ranked lower in the 'somewhat' trust category, rank in consequence lower here and were only 'highly' trusted by 2.7% of respondents from Argentina.

In comparison to Argentina, respondents from Brazil ranked the WHO high (61%), followed by science and health experts (56%), and newspapers (22%). This slight difference probably relates to different national media cultures.

While the WHO ranked among the two top sites that were 'highly trusted,' these two sources were in some countries, such as China, combined with one other 'highly' trusted source: 'my government.' As the graph below shows, we see a different pattern in China, where respondents ranked 'my government' third, with a substantial 48.5% making this claim (see the graph below).

In contrast, in Indonesia, the WHO's top rank (41.6%) and the second rank of science and health experts (36.3%) was followed with a significant number of respondents who said they 'highly' trusted religious leaders (26.7%), producing a different pattern of peaks, compared to Argentina and China.

An exception to the top roles were the results from Russian respondents. The WHO was ranked on top of 'highly trusted' sources (18.4%), The same rank as the WHO was occupied by 'family' (18.4%) and 'science and health' experts (15.6%). Other sources ranked below 10%. This outcome could reflect a source environment where respondents mainly 'trust' information sources, but overall, were reluctant to 'highly' trust.

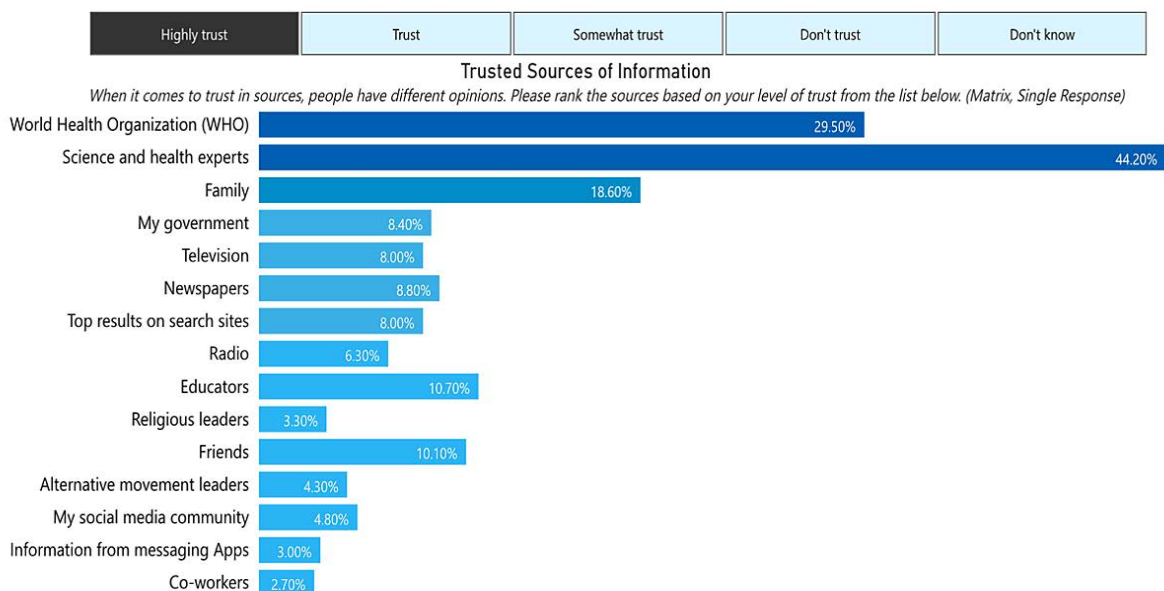
In Japan, as in South Korea, we also see different patterns, where the WHO was ranked first, but a relatively long list of sources were also 'highly' trusted. See the graph below.

In other countries, the pattern clearly reveals a peak of the WHO and 'science and health' experts, with other sources ranking much lower. These outcomes, and the high rank of the WHO and of science and health experts across all countries, reveals an interesting phenomenon. While in earlier decades, such a high rank would have been obtained by national media, however, among young adults across the 24 countries these have some status in layers 2 ('trusted') and 3 ('somewhat trusted').

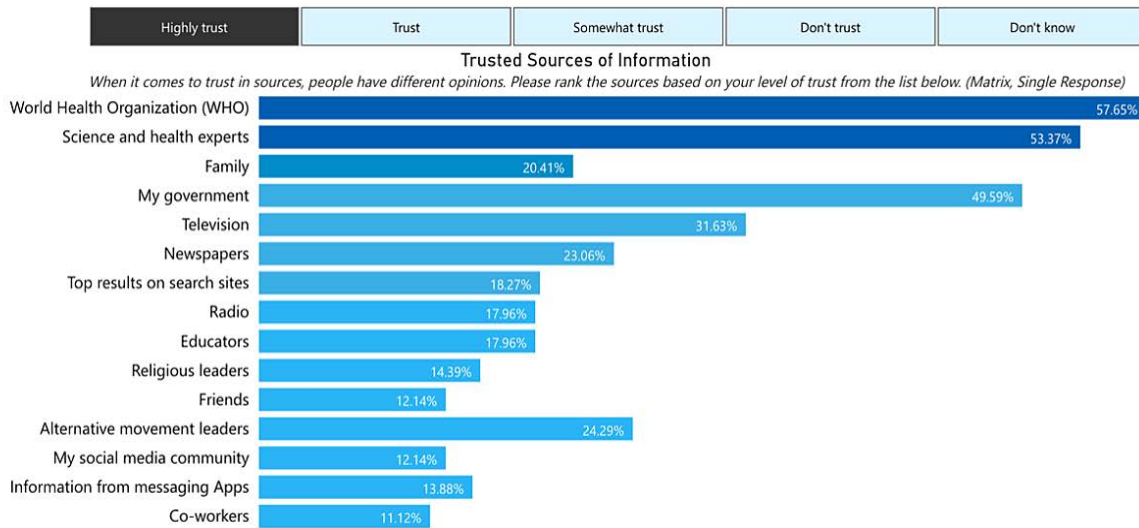
However, when it came to 'highly trusted' COVID-19 content, most respondents clearly preferred crisis information directly from the WHO. The fact that this is a phenomenon across all 24 countries reveals a clear crisis definition status or a crisis signifier role of the WHO, which is, as the examples above indicate, sometimes mixed with other sources.

This signifier role requires further attention in the way it relates to the perception of other sources. The study results reveal some mistrust in national media, which is addressed in Section 4 of this report, and an overall skeptical sentiment regarding crisis information. These sentiments could be related to the high trust in the WHO as a crisis signifier, the content that is provided, and the interaction that is possible on WHO's social media sites. Respondents might compare and contrast content they access from the WHO site to what they see on national television, with a potential outcome that they felt they do not get 'the whole picture' on national media, causing some skepticism and perhaps the ranking of traditional media not as 'highly trusted' but – in some countries – as 'trusted' or 'somewhat trusted' sources.

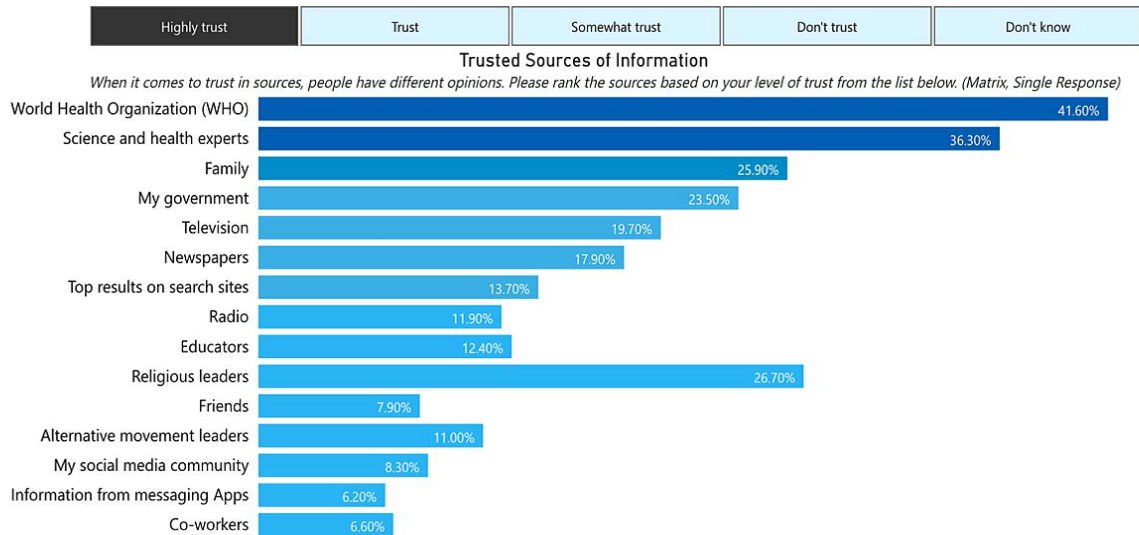
**Figure 25 'Highly trusted' sources of information – Argentina**



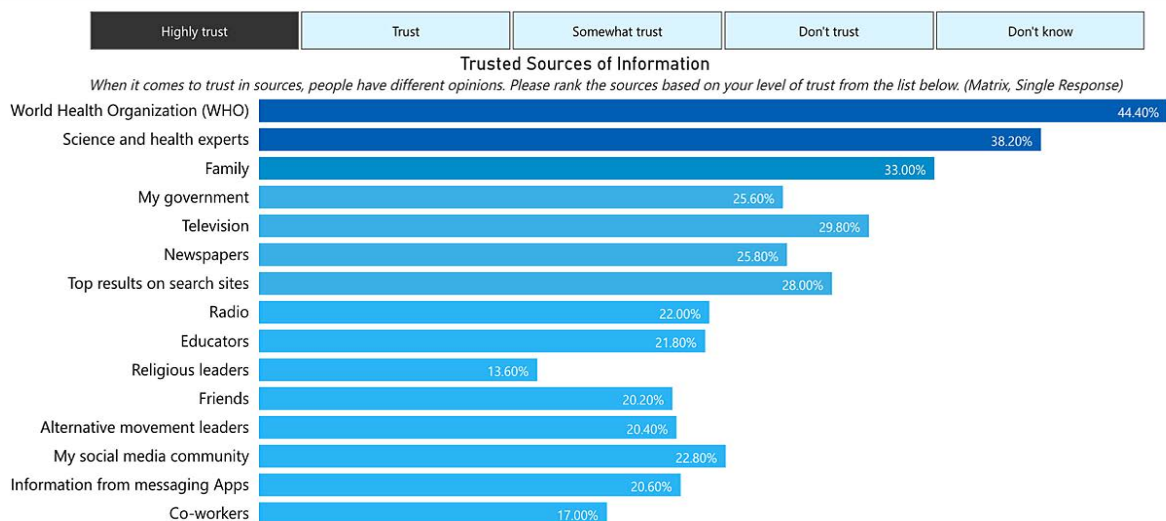
**Figure 26** 'Highly trusted' sources of information – China



**Figure 27** 'Highly trusted' sources of information – Indonesia



**Figure 28** 'Highly trusted' sources of information – South Korea



### 3.10 Relevance of search sites

Our study shows that search sites take on important roles. These are used to obtain additional information or to search for information about individual concerns.

Results from the entire sample to the question 'For COVID-19 news information and updates to which of the following sources do you go first?' to get first insight into crisis developments show many respondents check national media (43%) before using search sites (36%). There are no significant differences concerning this ranking across the three age cohorts included in this study.

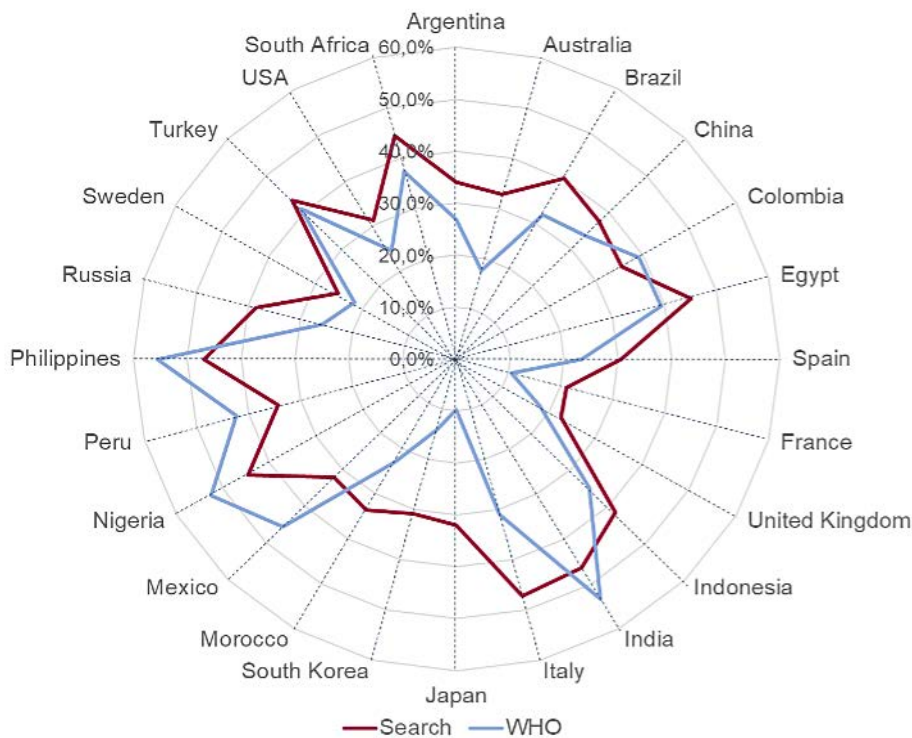
In most countries, search sites were among the top-five information sources. In Egypt 'actively' searching is even on the top spot (44%) when asked where they go 'first' to get COVID-19 news information and updates, followed by social media content by the WHO (39.2%). Respondents from Indonesia also ranked 'actively searching using search sites' as their first choice (41.7%) when asked 'For COVID-19 news information and updates to which of the following sources do you go first?.' This preference was

followed 'my social media,' by 'my government' (39.5%), and 'social media content by the WHO' (34.9). Mexico was one of the few countries where actively searching was only on rank seven.

Respondents from Russia also ranked 'actively searching on search sites' on top of the sources respondents went to obtain first updates (38.1%), followed by family (32.7%), and national news media (30.6%).

Actively searching 'using search sites' for COVID-19 information took on a significant role. In some countries it was as significant as WHO's social media content; for example, in Turkey. In other countries, actively searching was ranked – in some cases only slightly – higher than WHO's social media content, such as in South Africa, Brazil, Egypt, Indonesia, Italy, Japan, South Korea, Morocco, the UK, and the US.

**Figure 29** 'Highly trusted' sources of information – Argentina



This spider web indicates two dimensions where respondents went first for COVID-19 information. The red line indicates the role of search sites and the blue line the role of the WHO content.

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## 3.11 National insight: Indonesia

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Indonesia is one of the world's youngest countries, with 68 million youths aged 10–24 years. It is often argued that Indonesia has one of the largest digital populations worldwide. For this reason, it is important to gain a national snapshot of the way how respondents from Indonesia practise COVID-19 crisis interaction.

Respondents across all age bands in Indonesia said that they 'highly trust' the WHO (41.6%), followed by 'science and health experts' (36%), and 'religious leaders' (26.7%) and family (25.9%). It is often argued that social media users in Indonesia are very active, spending more than three hours a day on social media. Yet, social media communities and information from messaging apps were at the very end of their list of highly trusted sources.

Among 18–24 year old respondents, the WHO ranged on top of their 'highly' trusted sources (47%), as compared to 41% among 25–29 year olds, and 37% of 30–40 years. However, given the large Muslim population in Indonesia, it is not surprising that religious leaders were seen – by all age bands in a similar way – as a 'highly' trusted source. While these were the 'highly trusted' sources, and it could be argued that these might be used to double check and contrast crisis content, respondents basically said that they 'trust' a large number of sites, meaning that these sites also produced important content. The very different ranking of sources in the question about which sources they said that they 'highly' trust and 'trust' indicates a clear understanding of the different validity and, perhaps, legitimacy of these sources.

When it came to sources which they said that they just 'trust,' the sources on top of this list were 'science and health experts' (47%), educators (45%), radio (45%), television (42%), newspapers (42%), the WHO (39%), and 'religious leaders' (38%). Social media communities were trusted by 36%, as were 'information from messaging apps.' This is a mix and match of very different sites, which might even produce contradictory messages.

It seems that Indonesian respondents navigate across a complex and perhaps even somewhat contradictory information environment: between science information, 'neutral' sources, such as the WHO and religious leaders. We could argue that the challenges of such a polarized information environment, including the WHO, as well as religious leaders, produces a fog of vague skepticism and uncertainties – at the height of the pandemic in Indonesia when this survey was conducted. For example, 26% said that they 'strongly' believed that COVID-19 content is biased, and 24% felt that 'social distancing and hygiene directives are not really necessary.' They also had a vague set of concerns; for example, 'I feel my government is not doing enough to control the pandemic' (32%), 'I feel my government is overreacting when it comes to COVID-19' (32%). Unsurprisingly, 29% said that they have stopped paying attention to COVID-19 information, while 28% of respondents said that they 'somewhat agree' that their government is 'not giving me the full picture' and 32% stated that 'all information on social media is the same to me.'

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## 3.12 Takeaway

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This section reveals the different strategies to break out of the 'filter bubble' of social media communities in contexts of health crisis communication. The pyramid model of information-seeking behavior shows three important layers and an insight into information sources which are not trusted. Respondents ranked information and messaging apps and their own social media community quite low in this list and considered the WHO and science information as the highest trusted sources, with some distance to other source ranks. This reveals a new role of the WHO for this age group (18–40 year olds). The 'pyramid' model could provide a guideline for these crisis communication strategies.

Individuals navigate and manoeuvre across a multiple source universe. However, they do not come across information incidentally, but are active, search actively, visit sites, and know exactly who they can trust in a crisis. This opens up a new dimension of active crisis interaction which relates to all countries. Respondents from low- and middle-incomes reflect a similar sentiment to their peers in high-income regions. While a digital divide still exists for low- and middle-income groups, the number of those who have access to mobile smart phones is significantly increasing, which makes it necessary to adopt a new perspective. We need to move beyond the traditional digital divide debates, to assess new divides relating to

young adults in low- and middle- income countries. These new divides arising in contexts of smart mobile devices relate to the regulation of privacy and data protection, for example.

The high rank of actively searching for COVID-19 content 'using search sites' is an interesting outcome of our study. Although respondents seem to be slightly skeptical regarding the quality of top results and potentially aware of the algorithmic ranking procedure, search platforms still provide significant information when checking local outbreaks, identifying information relating to individual concerns, and understanding the larger issues. However, in the public debate, Google platforms are mainly in focus regarding ranking procedures in a crisis. Other platforms, for example smaller but sometimes thematic specific 'splinter' search platforms are sidelined; however, they could potentially also take up key roles in information-seeking.

Despite the use of search platforms as a key information tool in the COVID-19 crisis, search platform information requires further attention regarding debates of platform regulation. A recent study revealed that when entering the word 'coronavirus' on major search platforms, reveals gaps and discrepancies in the presentation of search outcomes (Makhortykh et al, 2020<sup>22</sup>). The authors argue that different users are exposed to different results. Furthermore, the lack of transparency of the algorithmic setting in a global crisis situation is an issue. While Google has addressed some of these issues, smaller platforms with equally important information roles are less in the public spotlight. A digital policy debate is required to identify consistent guidelines across large and small search platforms.

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<sup>22</sup> Makhortykh, M, Ulman, A, Ulloa, R (2020) 'How search engines disseminate information about COVID-19 and why they should do better,' *Harvard Kennedy School Misinformation Review* 1 (4).

A photograph of a climate protest on a city street. In the foreground, a person wearing a grey beanie and a black jacket with a backpack is seen from behind, holding a white sign on a wooden stick. The sign reads "I CAN'T BELIEVE WE'RE MARCHING FOR FACTS" in black, hand-drawn capital letters. The person is walking away from the camera. In the background, other protesters are visible, some wearing masks and carrying signs. One sign to the right says "gesunde UMWELT gute Klima gibt's nicht umsonst". Buildings with signs like "STIFTSGARAGE" and "P" are visible in the background.

I CAN'T BELIEVE  
WE'RE MARCHING  
FOR FACTS

**THE AWARENESS OF**

**MIS- AND DISINFORMATION**

The spread of mis- and disinformation has emerged as a key phenomenon during the COVID-19 pandemic across all world regions. However, the phenomenon itself is not new. Rumours, myths, and falsified information have also been produced, for example, by national media for decades. The difference to today's mis- and disinformation universe is that in those decades, falsified information was quickly detected by the large national audience of mainstream 'mass' media. Once an issue was publicly detected and caused a public scandal, media organizations were often forced to correct the news item and to acknowledge the mistake. In the context of social media and other digital platforms, it is very difficult to identify misinformation.

Especially the larger social media platforms experiment with various strategies, from setting an algorithmic filter to prevent falsified crisis information to be posted, to setting a mechanism detecting posted material, to warnings that material is false. In addition, some governments make platforms responsible for spreading false information.<sup>23</sup>

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## 4.1 Background

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Despite the massive role of falsified information during the COVID-19 pandemic, a universal definition of mis- and disinformation or 'fake' news does not exist. For example, it is suggested that 'fake' news can be defined as intentionally fabricated content 'regardless of their author's ultimate intention' while the term 'distorted' news is seen as a 'more subtle form of information,' aiming 'to influence or manipulate people's beliefs and behavior' (Neuwirth, 2021<sup>24</sup>). Terms such as 'misinformation' are broadly defined as producing false content without the necessary intention to manipulate. In addition, the term 'disinformation' and 'hoax' signify an active process of deliberately producing false content that, for example, is not based on widely acknowledged scientific facts which constitute the normative guidelines for nationally legitimate responses in a health crisis.

Despite these different terminologies and definitions, there are other dimensions to what is commonly addressed as 'fake' news which require attention. For example, the process of algorithmic content selection by social media and other digital platforms (such as search platforms) which set a user's individual content filters is

Despite these measures, it is still possible to spread mis- and disinformation regarding vaccines and health restrictions across social media platforms. The platform infrastructure of social media is simply too complex. Deep looping of advanced individual search levels, for example, when repeatedly clicking on search results to dive deeper into more and more advanced levels of increasing content nuances, make it very difficult for platforms to track deep false content. In addition, the fact that it is possible to target specific user profiles with mis- and disinformation to match their values, interests, and perspectives, who then further forward this content to peers across their different platform communities, creates massive challenges for social platforms when aiming to identify and track false crisis content. While the original content might have been deleted, content that has reached into other platforms for example, platforms beyond the Facebook platforms – with a less rigid mis/disinformation policy might still be available.

still today a major challenge. This content filter is set when even signing up to a new platform conveniently using individual sign-in to link up to already used platforms (such as using the Facebook sign-in to various content platforms). This also means that individual parameter transition to other platforms.

Once an individual actively engages in misinformation, similar content is likely to be algorithmically selected and shared. This process could create over time an individual information 'circuit' with more and more content of a similar type to be displayed and presented, which then even further increases the exposure to falsified crisis content, based on algorithmic filtering. So for example, when searching on YouTube for clips on 'Covid is not true' (avoiding words like 'vaccination' or conspiracy which might be picked up by the 'fake' news filter) reveals a first list of clips which are critical about conspiracy theories. However, when diving deeper to the next search level by clicking on a clip on 'The real truth about corona virus' a list of other clips is displayed with titles like 'They're lying to us.' In addition to watching the clip, users comment and share their opinions on the broader COVID conspiracy.

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<sup>23</sup> For example, the US Surgeon General's Advisory on Building a Health Information Environment suggests an action guideline for the US government, but also governments internationally to tackle misinformation at the time of a health crisis. The report is called *Confronting Health Misinformation*, 2021.

<sup>24</sup> Neuwirth, R (2021) 'The Global Regulation of "Fake News" in the Time of Oxymora: Facts and Fictions about the COVID-19 Pandemic as Coincidences or Predictive Programming?' *International Journal of Semiotics of Law*.

This example reveals that while platforms, such as YouTube make efforts to delete mis- and disinformation, there are still instances when anti science and anti-vaccine content is still displayed. Falsified information is not only posted on social media platforms by users but also by bots – automated producers of interaction which – as ‘chatbots’ – mimic human users and are difficult to identify.

However, when addressing falsified information another issue is of relevance as well: the broad availability of various technologies which make it very easy for almost anyone to manipulate videos – to produce, for example, fake and distorting interviews with policymakers and celebrities via artificial intelligence tools of facial mapping and voice manipulation and to create videos that appear to be genuine, but are in fact ‘deep fakes.’ Producing anti science virus content is already easy and will only expand in the future. These are the new dimensions of fake news and misinformation which are also elements of the globalized interactive crisis universe of the COVID-19 pandemic and require some attention.

Overall, false information and conspiracy theories influence opinions about the severity of the crisis and perceptions about the need to follow restrictions but also spread doubts about national crisis responses. As can be observed across continents, mis- and disinformation is already fracturing societies at the crucial point of a critical health crisis, where in fact nationally consistent responses are required.

In some countries, false information mobilizes protests on a regular basis to oppose restrictions wearing masks, maintaining social distance, and following lockdowns. For example, protesters believe in conspiracy theories such as in the role of 5G mobile phone signals and microchips in transmitting the virus. This belief has led to attacks of phone masts in Bolivia where protesters pulled down antennas. A former public figure from Nigeria shared a video on his Facebook site which claims that the so-called pandemic is a cover-up for serious medical conditions people pick up from 5G and not from a virus. In the UK, 5G antennas were destroyed. Anti-vaccination activism spreads across the world as social media disseminate videos of protests. Mis- and disinformation also includes the promotion of falsified cures. For example, a public figure from Madagascar promotes a herbal drink as a treatment for coronavirus in a social media video which has the potential to reach Corona skeptics across the world.

Various studies address the way how ‘fake’ news is perceived by social media users. For example, a study relating to the US argues that the educational background which has often been viewed as a filter when assessing individuals’ information behavior does not play a role in context of ‘fake’ news. The authors note that ‘digital media, more than others, appeared as disseminating considerable fake news in the first phases of the pandemic, making it more difficult for even the highly educated segments of the population to be correctly informed in the short term in an uncertain information environment’ (Gerosa et al., 2021: 2212<sup>25</sup>).

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## 4.2 It is not only mis- and disinformation – but a climate of skepticism and being overwhelmed

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It would be too simplistic to mainly focus on debates about manipulated content alone. Our data shows that Millennials and Generation Z respondents in 24 countries adopt a critical perspective not only of mis- and disinformation, but regarding the overall opinion climate of COVID-19.

A large group of respondents across all age cohorts and all world regions articulated a vague feeling of doubt, mistrust and skepticism regarding COVID-19 content. This skepticism does not relate to conspiracy content but they feel a sense of ambiguity where all information is ‘the same.’ This overall feeling of skepticism might explain why the WHO and the neutral information of scientists was ranked so highly as key sources that were ‘highly’ trusted

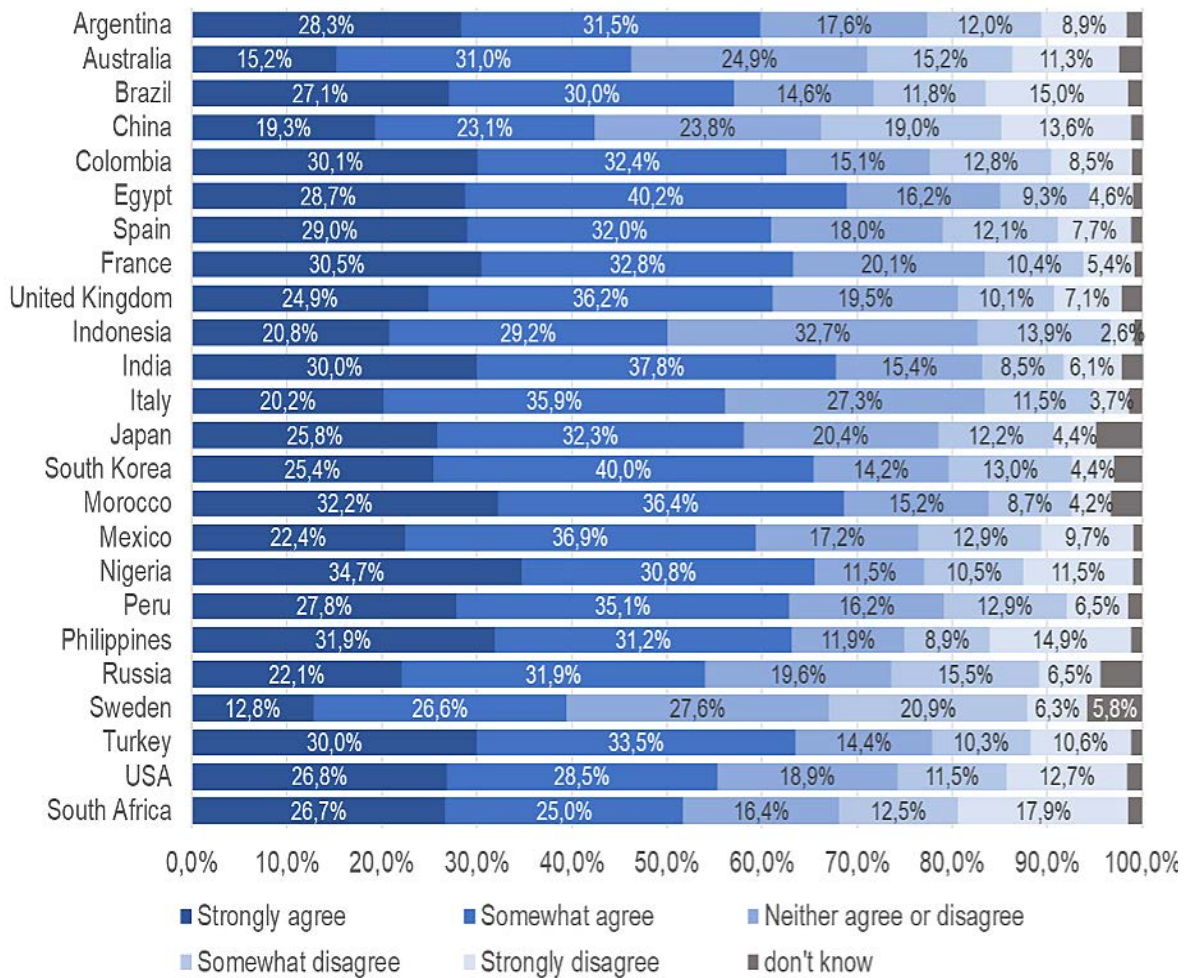
(see Section 3, the information ‘pyramid’). This sense of skepticism reflects in fact a significant degree of digital literacy, a critical perception of social media platforms in a heightened health crisis among the Millennials and Generation Z respondents of our study.

Consequently, they navigate around their individual social media loops and break out of their algorithmic filter bubbles. This sense of skepticism and the reliance on science experts and the WHO as neutral sources may be a direct consequence of their extensive experience engaging with the complexity of their individual multi-source environment, ranging from all kinds of digital sources to national media and various digital content sites.

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<sup>25</sup> Gerosa, T., Gui, M., Hargittai, E., Nguyen, M.H. (2021) ‘(Mis)Informed During COVID-19: How Education Level and Information Sources Contribute to Knowledge Gaps,’ *International Journal of Communication*, 15.

**Figure 30** I feel overwhelmed by the amount of information on COVID-19



Our study shows that there is a trend to contrast and compare COVID-19 information. While contrasting and comparing reveals significant digital literacy this might – at the same time – also leave a sense of an ambiguous information environment. Consequently, a large group of respondents across all countries said that they ‘strongly agree’ and ‘somewhat agree’ that they felt overwhelmed by the amount of information.

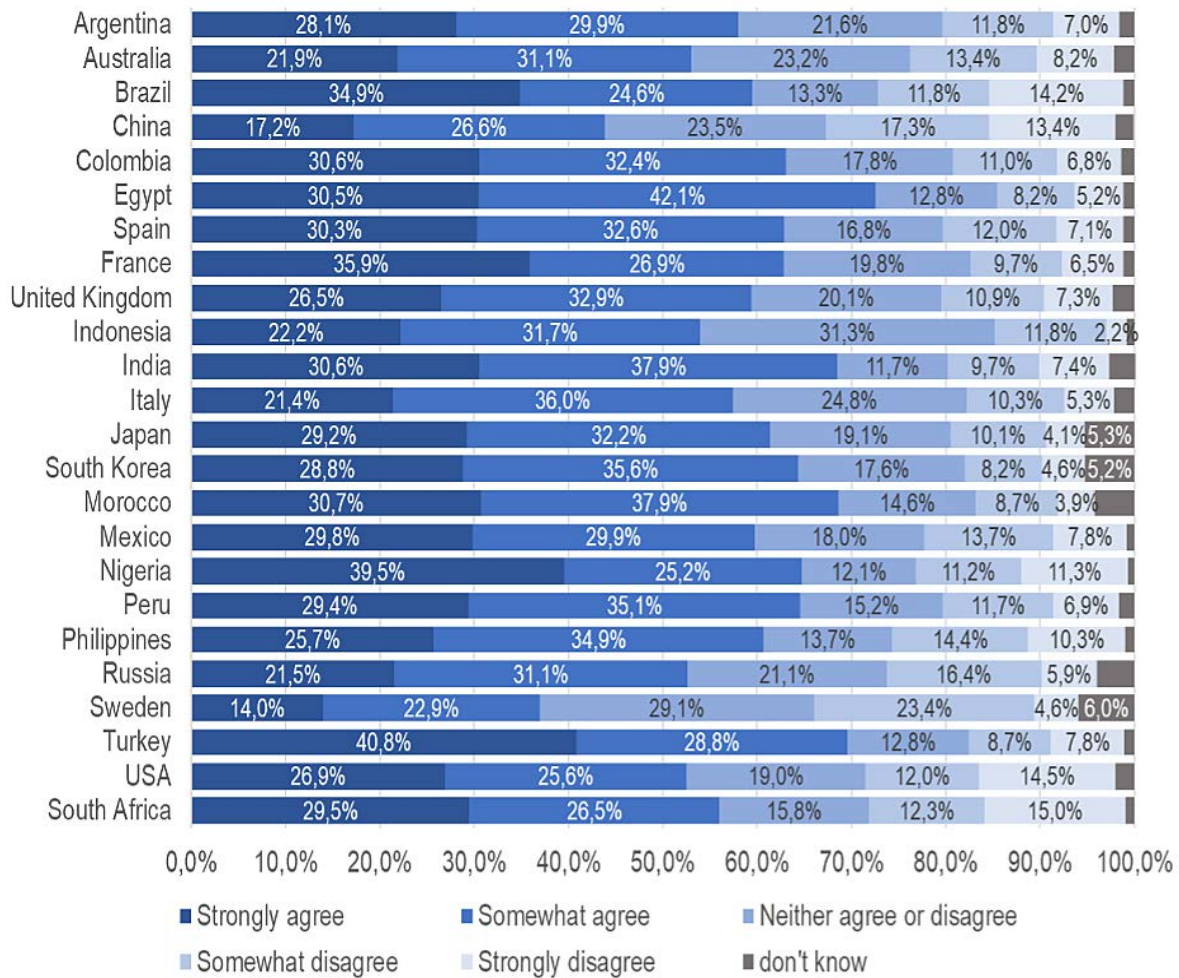
We asked respondents ‘How strongly do you or disagree with the following statements, when it comes to COVID-19?’ and were presented twelve statements. Figure 30 shows the nuanced sentiment of agreement across all countries.

Combining the categories of ‘strongly agree’ and ‘somewhat agree’ regarding the feeling of being overwhelmed by the amount of information on COVID-19 suggests a sense of an ambiguous COVID-19 information climate across most countries (with the lowest percentage of respondents with this sentiment in Australia, China, and Sweden). Those who said that they ‘strongly agree’ to feeling overwhelmed were from the Philippines (31.9%), France (30.5%), Colombia (30.1%), India (30%), and Turkey (30%).

A large group across *all* countries expressed a feeling of being ‘somewhat’ overwhelmed, which might equally contribute to a feeling of ambiguity. This does not necessarily relate to the phenomena of mis- and disinformation; but rather to the fact that too much information is available, that it is not clear where sources come from and orientation is difficult. It could be argued that this vague feeling of an information bubble is caused by a multi-source environment of Millennials and Generation Z where content is fluid: always available, always updated and providing all types of perspectives.

When combining the responses ‘strongly agree’ and ‘somewhat agree’ to being ‘overwhelmed’ reveals that 68% of respondents from Egypt, Morocco, and India said that they felt this way, 66% from Nigeria, 65% from South Korea, 63% from the Philippines and from Turkey, 57% from Brazil, 62% from France, 61% from Spain, 61% from UK, 58% from Japan, 56% from Italy, 55% from the US, 54% from Indonesia and Russia, and 52% from South Africa. Those with the lowest sense of being overwhelmed combining the ‘strongly agree’ and ‘somewhat agree’ response categories were from Australia (46%), Sweden (40%) and China (32.4%).

**Figure 31** I feel the media is not telling me everything



When asked to comment how they felt about the statement 'I feel the media is not telling me everything', we also see a large proportion of skepticism and doubt regarding media sources. This sentiment clearly reflects the key points made in Section 3 where national media are used; however, a clear majority across all 24 countries said that they mainly 'highly' trusted the WHO and science and health experts. A large proportion may not have doubted the legitimacy of information produced by the media, but may have contrasted and compared COVID-19 information across different sources. Thus, respondents might have felt that the media were not providing specific angles covered elsewhere, such as by the social media sites of the WHO, and hence, felt that 'the media is not telling me everything.'

This doubt regarding media COVID-19 information is reflected in responses across different types of national media structures: from those countries with a public service media tradition and the notion of the media as critical fourth estate, to countries where governments monitor media. Respondents from countries with a public service tradition said that they felt that there was more to the crisis than they were told by the media. For example,

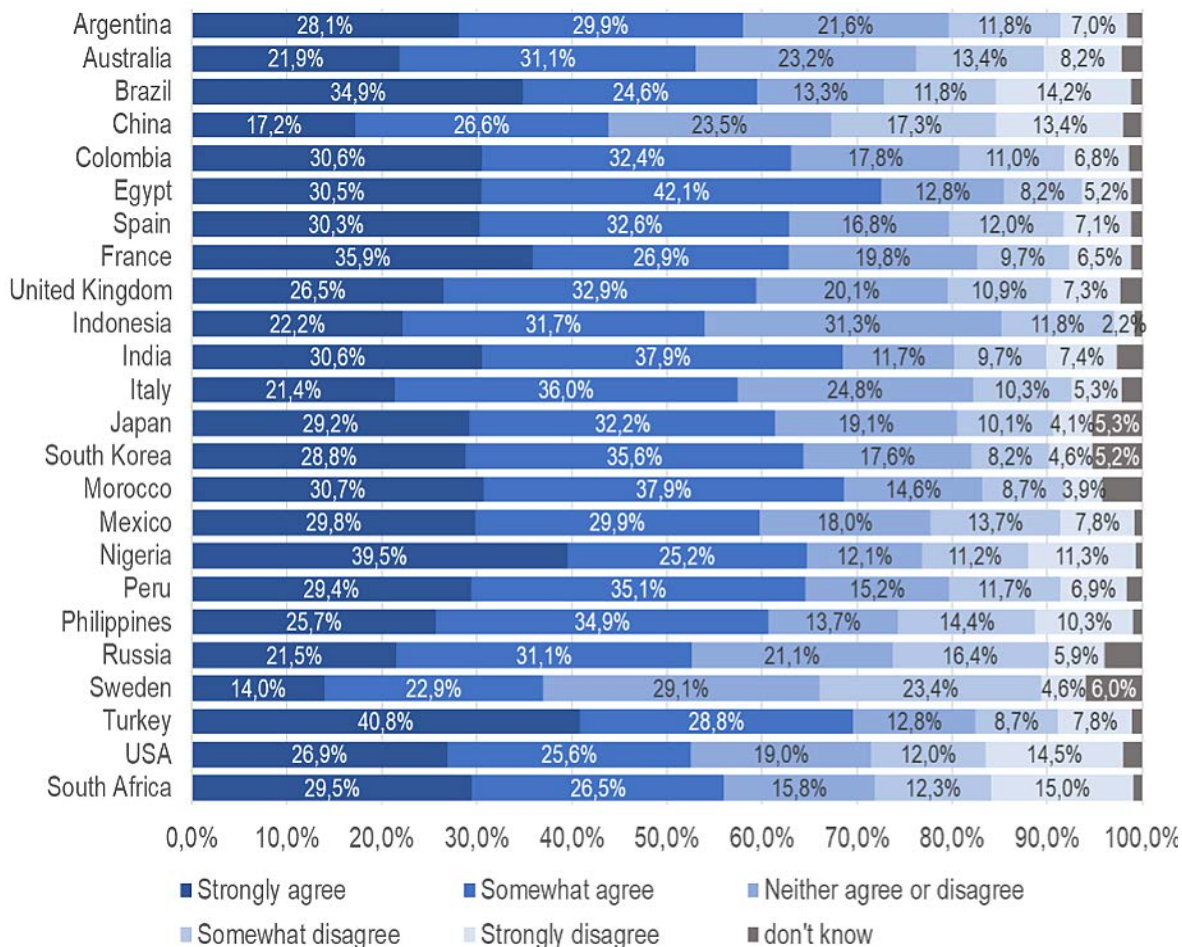
35.9% of respondents from France said that they 'strongly' agreed with this statement; however, only relatively few from other European public service media countries, such as Spain (21.4%), Sweden (14%) and Italy (12.45%).

It was not only the feeling of being overwhelmed and that the media do not tell the whole story, but respondents also felt to a large extent that crisis content is biased. As the chart below (Figure 32) shows, there was a substantial group in each world regions that felt agreed 'strongly' and 'somewhat' that COVID-19 content is biased.

Comparing respondents who noted that they 'strongly' agreed that COVID-19 content is biased reveals that this feeling was especially strong in Turkey (40.8%), followed by Nigeria (39.5%), France (35.9%), and Brazil (34.1%). Adding those who 'strongly' agree and 'somewhat' agree that COVID-19 content is biased, shows that in Egypt 72.6% of respondents felt this way, in Turkey 69.6%, in Morocco 68.6%, in India 68.5%, and in South Korea 67.2%.

The set of countries where slightly less, but still a considerable number of respondents also felt a probability of biased content were Nigeria (64.7%), Peru (64.5%), Colombia (63%), Spain (62.9%), France (62.8%), Japan

**Figure 32** I believe that COVID-19 content is biased



(61.4%), and Philippines (60.6%). The countries where respondents agreed less that COVID-19 content is biased were China (43.8%) and Sweden (36.9%).

Because the survey did not ask for the reasons for the sentiment why they believe that COVID-19 content is biased, it is difficult to interpret these outcomes. Given the large diversity of countries where respondents have a considerable feeling of biased content, some reasons for this feeling could be related to specific local information contexts, which are very different in France and in Turkey. The overall perception of the COVID-19 information ecology, for example, the multiple sources available where information feels 'the same,' could also be a reason. Both reasons clearly relate to the fact that most respondents said that they highly trusted the WHO and science and health experts (see Section 3).

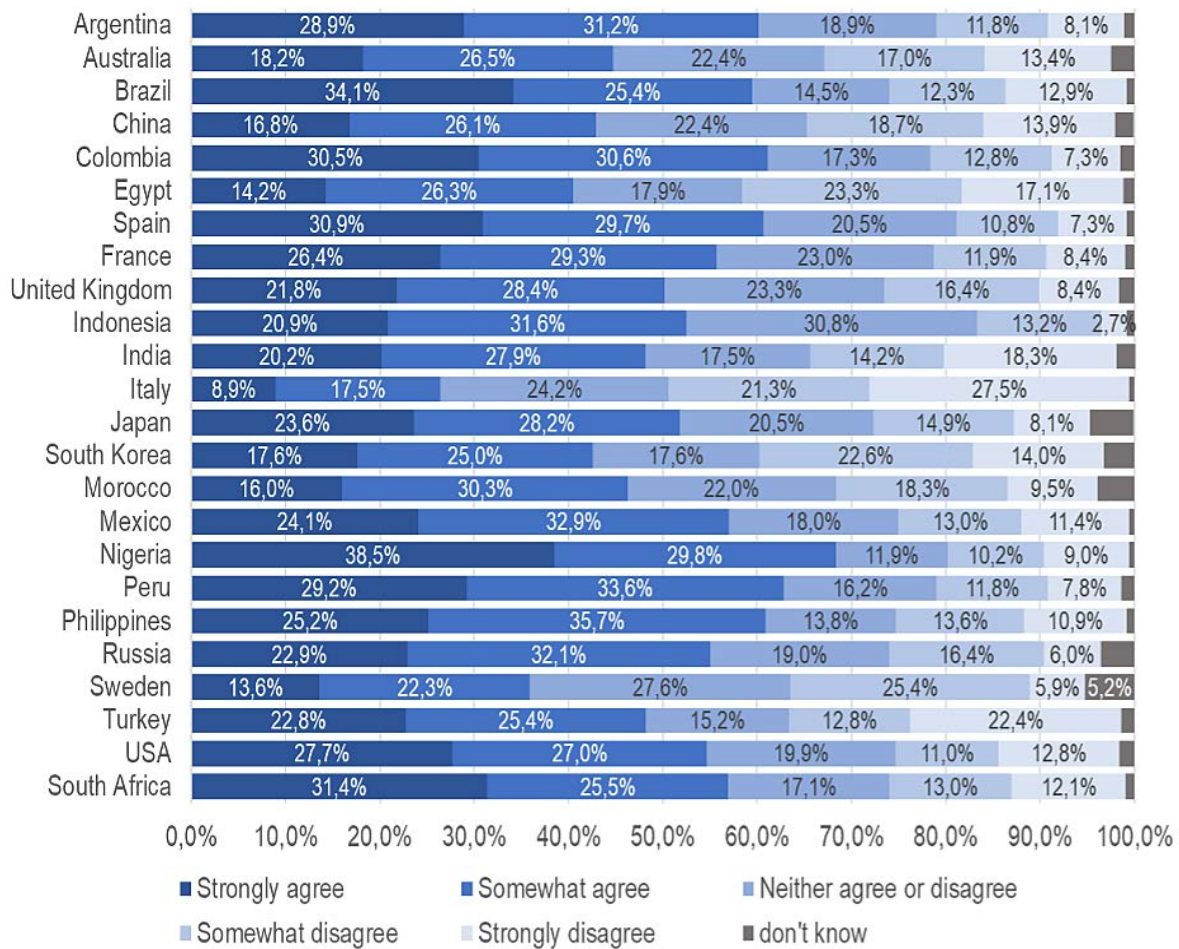
In addition to these nuanced sentiments concerning potentially biased COVID-19 information, the graph above also reflects that a relatively large group of respondents displays a notion of indifference, which could be interpreted as a strategy to cope with the potentially perceived 'same/same' of crisis information. This is not surprising, given the extended duration of the pandemic

and the continuous crisis mode, which also constitutes significant challenges for journalists when addressing the different peaks of the crisis over such an extended period of time.

Another statement following the question, 'How strongly do you agree or disagree with the following statements, when it comes to COVID-19?' asked for their degree of agreement to the statement 'I stopped paying attention to news and information on COVID-19 in general.' Outcomes indicate a feeling of information fatigue, reflected by the significant number of responses who said that they 'highly agree' and 'somewhat agree' to having 'stopped paying attention.' Combining these numbers with the earlier chart displaying results of the feeling that COVID-19 information is biased and that media are not telling the full picture, reveals the significant number of respondents adopting a sense of skepticism when engaging with COVID-19 information. In this sense, these notions of skepticism and doubt, indicate that to discuss only mis- and disinformation in public debates is too simplistic.

Our survey indicates that respondents were critical, skeptical, and doubtful, and were very nuanced in their perceptions. They were also aware of key sources in a

**Figure 33** I stopped paying attention to news and information on COVID-19 in general



health crisis, and the high ranking of science and health experts. The fact that the WHO is seen as a ‘highly trusted’ source indicates the competence needed to overcome the sense of ambiguity within their broad information ecology by obtaining neutral information. It could be argued that they then use this neutral information to contrast and compare with the content produced by other information sources, and thereby reach a sense of doubt.

Based on these results, it is not surprising that respondents felt crisis fatigue and just stopped paying attention. The question, ‘How strongly do you agree or disagree with the following statements, when it comes to COVID-19?’ asked for their nuanced agreement to the statement, ‘I stopped paying attention to news and information on COVID-19 in general.’ Respondents from all types of national media cultures seemed to have dropped out of the information cycle. Respondents from Nigeria (38.5%), Brazil (34.1%), South Africa (31.4%), Spain (30.9%), and Peru (29.2%) agreed ‘strongly’ to no longer paying attention (Figure 33).

However, groups who felt a vague sense of dropping out of the information loop were quite large. Combining those who ‘strongly’ and ‘somewhat’ agreed reveals a significant group of respondents across most countries – except

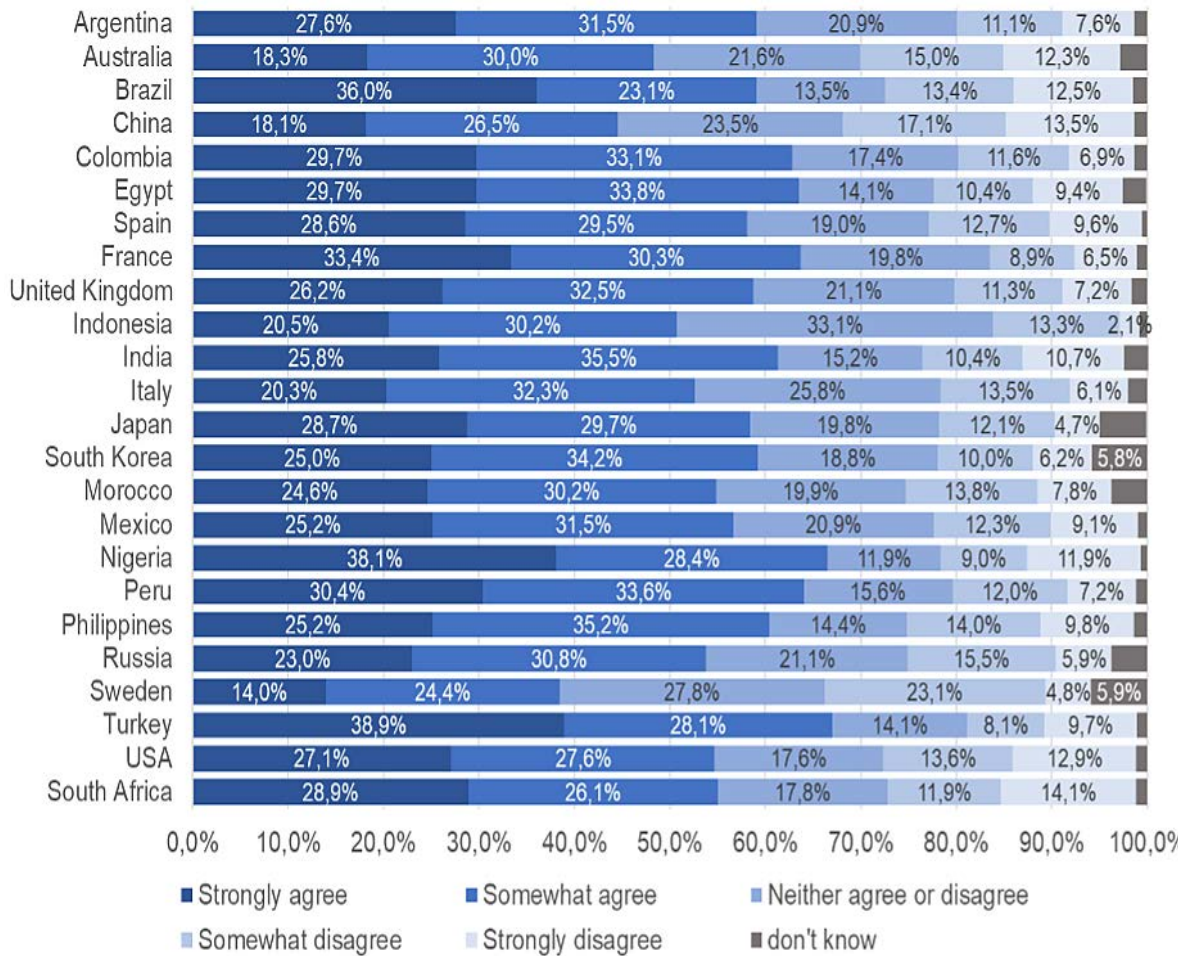
for Sweden and Italy – where the combined percentage reached 36% and 26%.

Respondents not only expressed severe skepticism concerning media and the overall information ecology, but also relatively large groups said that they doubted that their government does not present ‘the whole picture’ of crisis issues.

Governments constitute an additional layer in the multiple-source environment, because they conduct press briefings, and many governments also communicate updated news and guidelines for restrictions also on social media. Similarly, regarding the perception of a relatively large groups of respondents who felt that media are biased in their COVID-19 coverage, when asked if they felt that their government is providing the full picture reveals a significant amount of doubt, suspicion, and reservation. ‘Strongly agree’ and ‘somewhat agree,’ was especially expressed by respondents from Turkey (67%), Nigeria (66%), Egypt, (64%), France (63%).

This sentiment constitutes another dimension in the larger perception of an ambiguous information environment of many respondents. The fact that a relatively large group

**Figure 34** I feel like my government is not giving me the full picture when it comes to COVID-19



either 'strongly' or 'somewhat' agreed to the opinion that 'my government is not giving me the full picture' reflects a further dimension that contributes to the sense of skepticism and ambiguity. Within this environment, respondents seemed to access multiple sources, but also to compare and contrast, which does not produce more insight, but perhaps an increased feeling of detachment and that 'everything is the same.'

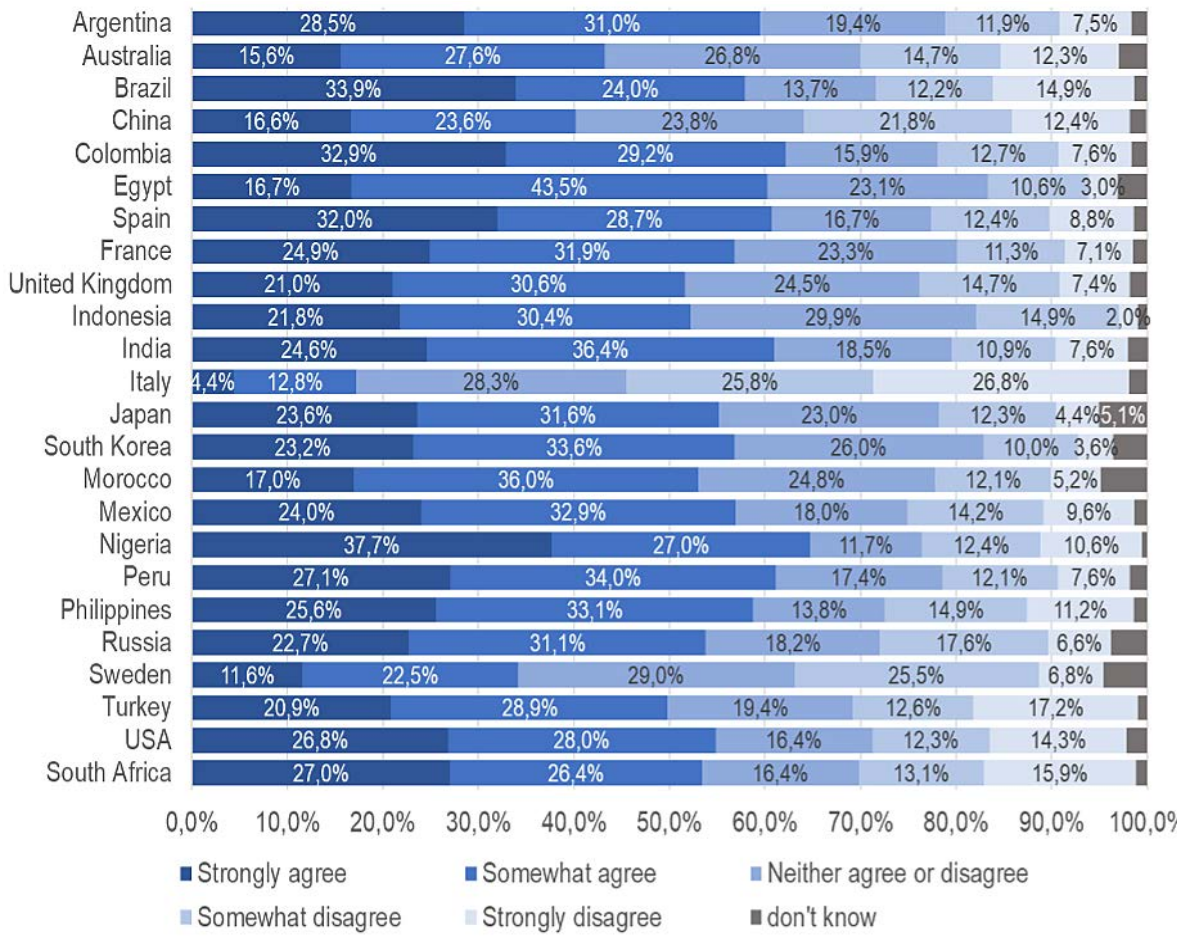
Based on these results, it could be argued that large groups of respondents perceive the overall information environment as biased, and they stopped paying attention. These results also resonate with outcomes of the responses to which sources they trust which revealed that many only highly trust the WHO and scientists, which they seem to perceive as a neutral source.

The perception of skepticism and doubt was also expressed towards social media. The question, 'How strongly do you agree or disagree with the following statements' asked for various general sentiments regarding COVID-19. The question asked for the degree of agreements, for example, to the statement, 'All information on social media is the same to me.'

While respondents said that they heavily used platforms (see Section 1), when it came to their 'highly' trust in social media regarding COVID-19 information, as discussed in Section 2, results reveal that social media ranked relatively low. The sentiment of social media as an ambiguous information ecology is reflected in the graph (Figure 35) below.

Assessing respondents who 'strongly' agree to the statement that 'all information on social media is the same to me' reveals that a high percentage were from Nigeria (37.7%), followed by respondents from Brazil (33.9%). Respondents from other countries said that they felt 'somewhat' that this was the case; for example, a large group of respondents agreed 'somewhat' from Egypt (43%) and Morocco (36%). Combining those who 'strongly' and 'somewhat' agree reveals that this perception was only shared by very small groups: Sweden (34%) and Italy (17%).

**Figure 35** All information on social media is the same to me



# Deep insight: Australia and fake news

In the wake of a summer of devastating bushfires and the outbreak of COVID-19, Australia's demand for crisis communication surged in 2020.

As noted by the Australia Pacific lead for global fact-checking Anne Kruger, this fear-induced scramble for information created the perfect conditions for mis/disinformation to spread.<sup>26</sup>



*Map allegedly showing where Wuhan residents have gone*

The dissemination of fake news relating to the COVID-19 pandemic in Australia has not been limited to fringe actors or social media platforms. Early in the pandemic, mainstream morning show Channel 7's Sunrise featured a graphic allegedly representing the flight patterns of Chinese nationals from Wuhan following the 2020 Lunar New Year (see above picture). In fact, the image was a depiction of global air traffic from 2010 which had gone viral on social media and clearly not been properly fact checked.

Potentially dangerous racist content relating to the pandemic has also been shared on social media by users impersonating traditional media organizations or governmental departments. In January 2020, a media release supposedly shared by a state health department issued a 'Level 3 health warning' advising against non-essential travel to Wuhan and several local suburbs known for having higher Chinese-Australian populations. Further, a social media post claiming to be on behalf of the 'Department of Diseaseology Paramatta' (Paramatta is a suburb of Sydney,



Photo: Getty Images

<sup>26</sup> <https://www.abc.net.au/news/2020-07-19/coronavirus-fake-news-how-to-fight-it/12467194>

Australia) went viral after claiming that certain foods imported from China, including noodles, fortune cookies, and Chinese Red Bull, included traces of the virus.<sup>27</sup>

As evident across the world, online COVID-19 racism has had very real effects on Asian Australians. In a recent study, more than 80% of Asian Australian respondents reported having experienced COVID-19 related discrimination,<sup>28</sup> and there have been several instances of physical and verbal abuse, as well as racist property damage since the outbreak.<sup>29</sup>

While Australian participants overall selected national newspapers television and radio as their first source of information regarding the pandemic, this was not the case for both 18–24 year olds and 25–29 year olds, who were most likely to actively search for information. These findings support existing national research and scholarship suggesting that younger Australians are shifting away from traditional media autonomously seeking public health information, rather than allowing it to be brought to them by way of nightly news, daily newspaper, or hourly radio bulletins.

In addition to lockdown measures (including one of the longest and strictest in the world in Victoria) and the introduction of the COVIDSafe app, the Australian federal and state governments have addressed the pandemic by introducing and/or ramping up several digital means of crisis communication. This includes live streaming of press releases at the state and federal levels, the enlistment of influencers to promote public health initiatives, text messaging,<sup>30</sup> a dedicated 'myth busting' website,<sup>31</sup> and an ad aired across traditional and digital media platforms entitled 'how the virus spreads' aimed specifically at young people.<sup>32</sup>



Recognising that 18–35 year old Australians are most likely to contract COVID-19, one state government health department took to Twitter to ask young people to share videos of themselves getting tested for COVID-19 using the hashtag #Ittest4NSW.

Several hashtags also emerged in response to growing frustrations with the Victorian State Government's handling of Australia's most significant second wave of COVID-19; specifically the Victorian Premier Daniel Andrews. As noted by Graham and others, the hashtag campaigns #IStandwithDan, #DictatorDan and #Danliedpeopledied, demonstrate not only the growing tensions and polarities associated with the lockdown, but also the capacity of social media campaigns to progress political agendas.<sup>33</sup>

Finally, while not a governmental response, another national response to fake news during the pandemic is Australian telecommunications company Telstra's use of local comedian Mark Humphries to address myths surrounding a connection between 5G and coronavirus.<sup>34</sup> While there is an obvious underlying vested interest in this project, it demonstrates the capacity of the private sector to harness their influence for public good in times of crisis.

<sup>27</sup> <https://www.dailymail.co.uk/news/article-7940461/Australians-warned-not-fall-HOAX-coronavirus-health-notice.html>

<sup>28</sup> <https://www.abc.net.au/news/2020-11-02/asian-australians-suffer-covid-19-discrimination-anu-survey/12834324>

<sup>29</sup> <https://pursuit.unimelb.edu.au/articles/the-toxic-spread-of-covid-19-racism>

<sup>30</sup> <https://www.health.gov.au/ministers/the-hon-greg-hunt-mp/media/australian-government-text-message-regarding-coronavirus-prevention-steps>

<sup>31</sup> <https://www.australia.gov.au/covid-19-mythbusting>

<sup>32</sup> <https://www.health.gov.au/ministers/the-hon-greg-hunt-mp/media/how-the-virus-spreads-new-ad-targets-young-australians-in-covid-19-response>

<sup>33</sup> <https://journals.sagepub.com/doi/full/10.1177/1329878X20981780>

<sup>34</sup> <https://www.sydney.edu.au/news-opinion/news/2020/08/11/why-are-young-men-more-likely-to-believe-covid-19-myths.html>

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## 4.3 The perception of fake news

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The perception and interaction with fake news is not isolated, but rather should be seen in the context of the perception of the COVID-19 information environment. This is a – to some extent – ambiguous information sphere. It seems only 'logical' that respondents are fully aware of mis- and disinformation.

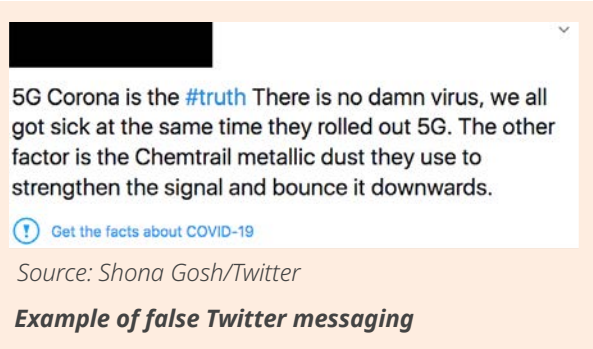
The majority of respondents (59%) across all 24 countries said that they were very aware of fake news: 33% were 'somewhat aware;' however, 5% were unaware and an even smaller proportion 'does not care whether content is real or fake.' This result aligns with the critical reflection of the broader 'diffuse' information environment. Not only were large proportions of respondents critical regarding media, felt that all information on even social media 'is the same' but a large majority of the overall sample were fully aware of misinformation, falsified content and fake news.

Results of our study do not reflect a difference in the awareness of fake news regarding socio-economic background or age cohort; however, there are some national differences. For example, assessing the proportion of those countries where more than 50% stated that they were 'very aware' of fake news reveals a list of nineteen countries of the 24 countries included. This is an impressive result and clearly further supports the argument made earlier that respondents have a significant degree of digital literacy. The countries with more than 50% of respondents stating that they are 'very aware' of fake news are Brazil (84%), France (77%), South Africa (75%), Colombia (74%), Mexico (74%), Argentina (74%), Peru (73%), Nigeria (73%) India (72%), Spain (66%), US (66%), Italy (64%), Turkey (60%), Sweden (58%), South Korea (55%), Philippines (54%), Russia (53%), UK (52%), and Egypt (51%).

The countries with a smaller proportion making this statement were Australia (50%), Morocco (45%), Philippines (39%), Japan (35.6%), China (33%), and South Korea (32%).

The country with the smallest proportion of respondents feeling 'very aware' were from Indonesia (13%), however, 58% were 'somewhat aware,' to a relatively large group of 24% was 'unaware of fake news' and 4% did 'not care whether content is real or fake.'

However, the definition of what mis- and disinformation are, might be very different in local perspectives in each of these countries. We did not ask this question, but it could be argued that in some countries fake news and falsified COVID-19 content is not only produced by conspiracy theorists, but also by public actors.

A screenshot of a tweet with a blacked-out profile picture and name. The text of the tweet reads: "5G Corona is the #truth There is no damn virus, we all got sick at the same time they rolled out 5G. The other factor is the Chemtrail metallic dust they use to strengthen the signal and bounce it downwards." Below the text is a blue link icon with the text "Get the facts about COVID-19".

5G Corona is the #truth There is no damn virus, we all got sick at the same time they rolled out 5G. The other factor is the Chemtrail metallic dust they use to strengthen the signal and bounce it downwards.

[Get the facts about COVID-19](#)

Source: Shona Gosh/Twitter

### **Example of false Twitter messaging**

Assessing the three age cohorts included in this study reveals that there was only a 1% difference between the three age cohorts: 18–24, 25–29, and 30–40 years concerning issues around fake news. This result also further supports the thesis of a crisis information literate generation.

The overall significant degree of digital literacy regarding the awareness of 'fake' news is also reflected in the small number of respondents who 'never' ensure that content is correct. When we addressed their own digital behavior and asked, 'Do you make sure that information is correct before sharing?,' results reflect that only a very small proportion of respondents per country (that is, under 10%) said that they 'never' ensured that information was correct before sharing. The largest number of 'never ensuring that information was correct before sharing' was from Japan where 6% and from Russia where 5% of respondents made this statement. The lowest number in this category was by respondents from the US, with 0.8%.

When asked if respondents 'ever' shared content that they later found to be incorrect, this was not the case for 42% of the overall sample across the 24 countries. The country with the largest proportion of those who answered 'yes' was from South Korea, at 55.8%. However, when asked if this content was corrected, the majority, between 80–95% across most countries corrected this content. This figure was slightly lower among respondents from Russia, at 70%.

Responses to the question, 'How do you react to COVID-19 information – shared by others on social media/messaging apps – that you know is false?' shows that 35% of the overall sample said that they ignored the content, 25% reported the content, 19% commented on the content, 8.6% unfollowed the person and 7% shared the content while 5% 'do not know.'

However, comparing responses across countries reveals that in some countries, such as France, the majority felt 'somewhat' concerned.

Comparing this chart to India (Figure 37) reveals a large difference, as 37.2% reported the content and only 14.1% ignored the content.

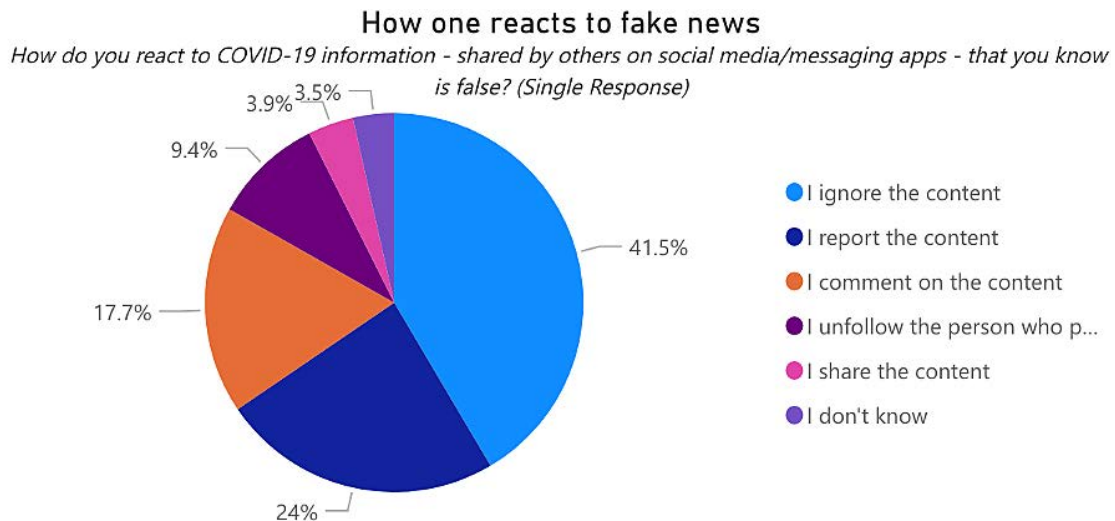
While a large group of respondents from India reported false content, this was not the case for a large group of respondents from Nigeria where 40% stated that they 'ignore the content' and 28% said they commented on the content. Although in India a large group reported false information when shared by others, there was also a relatively large group who shared the content further (11%).

In contrast, 40% of respondents from Nigeria ignored false COVID-19 information being shared and 29.8% commented on this content while only 19% reported this false information.

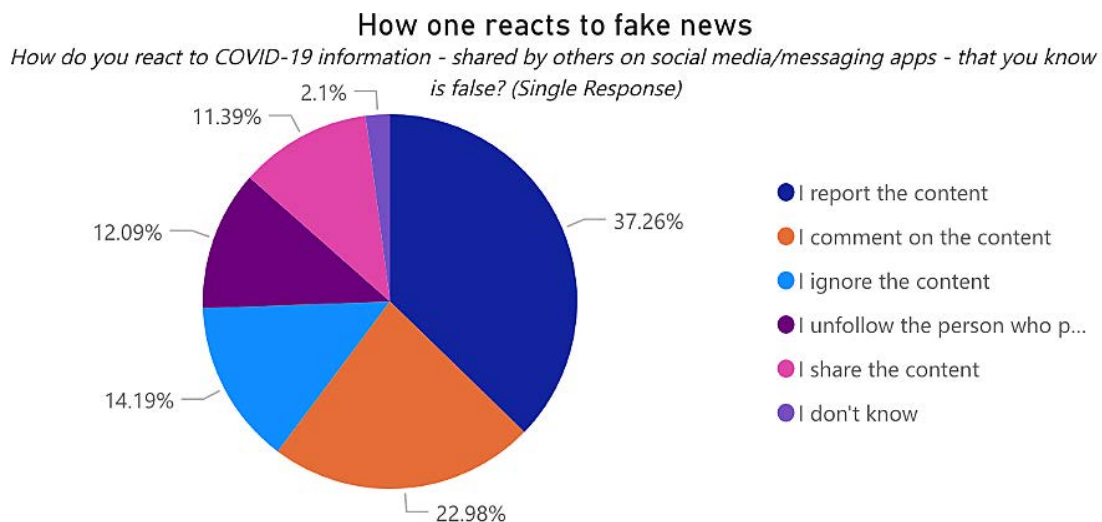
While these questions relate to awareness it is also interesting to ask for their degree of concern regarding fake news at the time of a global health crisis. We asked the question 'Overall, how do you feel about the existence of "fake" information regarding COVID-19 on social

media/messaging apps?' Across the entire sample, 43% of respondents were 'very concerned' and 39.4% were 'somewhat concerned,' 10.3% were 'not concerned' and a very small percentage said that they 'find it interesting.' These results reveal a broad concern. However, the fact that a relative large proportion of 39.4% was only 'somewhat' concerned does not necessarily mean that this group does not sufficiently care about correct information. Based on earlier results which attest a significant level of digital literacy, the fact that 39.4% stated to be only 'somewhat' concerned could also mean that they were able to navigate around misinformation. However, there were also national differences. While a relatively large number of respondents from Brazil was not only aware but were also 'very concerned' (61%), the majority of respondents, for example, from Australia and China was only 'somewhat concerned' (44% in Australia and 54% in China). Overall, national nuances might also relate to the way how social media flag fake news in various countries and to the way how misinformation is an issue of national public debate.

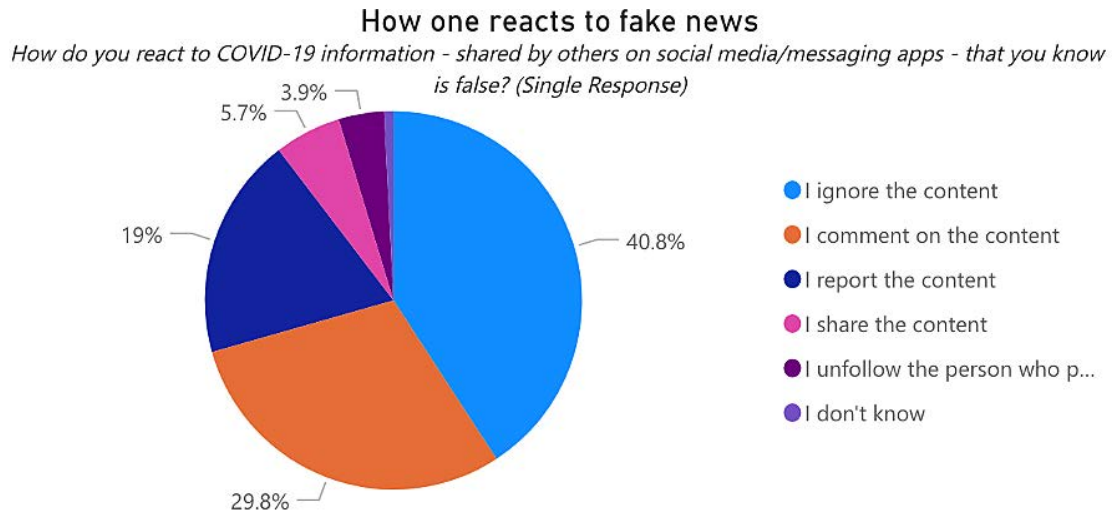
**Figure 36** Country results about fake news sharing: France



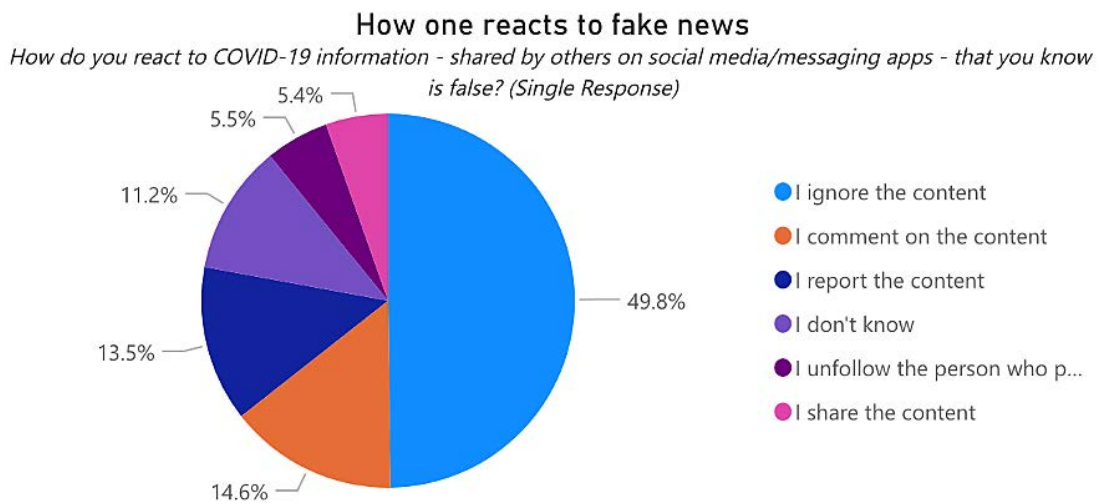
**Figure 37** Country results about fake news sharing: India



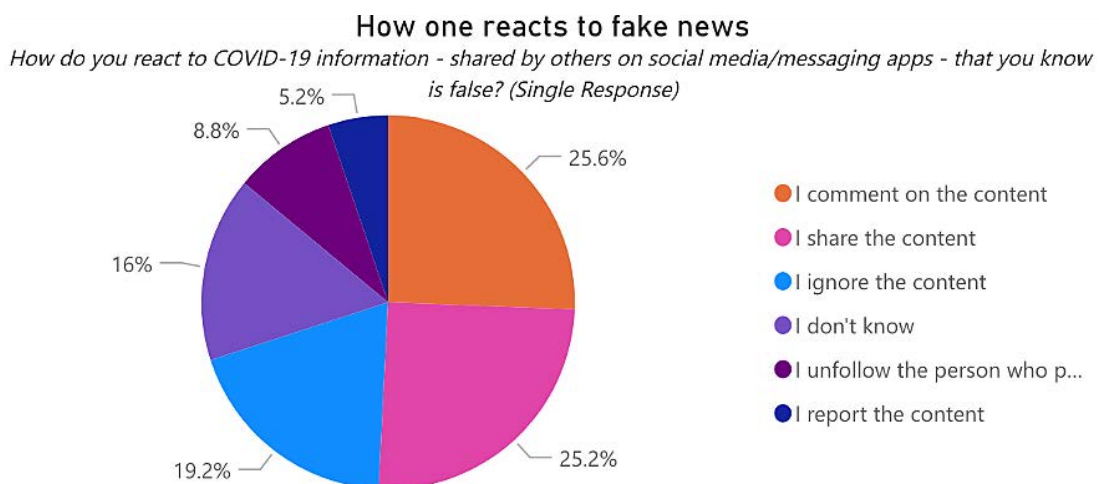
**Figure 38** Country results about fake news sharing: Nigeria



**Figure 39** Country results about fake news sharing: Russia



**Figure 40** Country results about fake news sharing: South Korea



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## 4.4 Takeaway

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Fake news is an issue in normal times, However, in times of a global pandemic, the spread of mis/disinformation can have serious consequences. This study reveals that it would be too simplistic only to focus on fake news. The participants responded with a broad sense of skepticism and doubt, and evidenced a perception of ambiguity when it came to COVID-19 information. The responses to the awareness of fake news need to be related to this broader sense of skepticism.

Outcomes also show that the three generations included in this survey were digitally literate. They knew how to break out of their filter bubbles, search for neutral information and navigate across their broader multiple source environment. They were active information seeker and not passive receivers.

These outcomes are a positive result; however, when it came to the recognition of fake news and misinformation, there were still instances when false information cannot be recognized; for example, when produced by trolls and interactive bots or fake sources. For this reason, it is important to develop sustainable digital policy approaches. While platforms are required in some countries to manage fake news, delete, and flag, for example, this is not enough –especially in a crisis.

Current digital policy approaches have a more general focus on the COVID-19 pandemic and new debates surrounding the roles and responsibilities of social media platforms in a global health crisis. As established in a 2021 UNESCO report, more than 40 countries have launched legislative initiatives intended to regulate digital content. International organizations and other relevant stakeholders have called for and implemented more robust regulatory measures. For example, recognizing the potential of – again in general terms – mis/disinformation to put the health, security, and environment of citizens at risk, the European Commission has introduced several initiatives, including the Code of Practice on Disinformation, the European Digital Media Observatory, a collection of tools to combat the spread of disinformation, and a Joint Communication (in collaboration with the European External Action Service) analyzing the global responses to disinformation relating to the pandemic. The European Union has been taking several steps, including the comprehensive analysis of self-regulation assessments submitted by Facebook, Google, Twitter, and Mozilla (as required by signature of the Code of Practice).

The OECD has also released a policy brief outlining four key actions that governments platforms should take to combat the spread of mis/disinformation regarding the pandemic:

1. supporting a multiplicity of independent fact-checking organizations
2. ensuring human moderators are in place to complement technological solutions
3. voluntarily issuing transparency reports about COVID-19 disinformation
4. improving users' media, digital and health literacy skills.

The report also highlights the role of social media platforms as a key channel for distributing accurate information about COVID-19. Significantly, however, neither of these initiatives venture beyond self-regulation mechanisms to advocate for international regulatory standards. Conversely, this report concurs with the UNESCO brief that national policy and self-regulation has thus far been inadequate; proposing that the development and implementation of a unified global regulatory framework is crucial to addressing the spread of mis/disinformation on social media platforms in times of crisis.

While many platforms have previously justified not regulating content posted and shared by their users as beyond their mandates and responsibilities, the pandemic has compelled several previously opposed platforms to introduce 'fact checking' and censoring mechanisms to address potentially dangerous or inflammatory content concerning the virus, as well as often interrelated political and social issues such as the legitimacy and necessity of preventative measures, and COVID-fueled hate speech. For example, Facebook, and Instagram are working with independent, third-party fact-checking organizations who are certified through the non-partisan International Fact-Checking Network (IFCN) to identify, review, and take action on crisis communication shared on their platforms.

As this study shows, respondents across all 24 countries actively engage with digital platforms, from social media to search platforms. This means that digital policy debates regarding the spread of misinformation and the protection of social media users require broad international scope to include not only high-income countries, but engage with digital policy debates in low-and middle income countries as well.

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<sup>35</sup> <https://unesdoc.unesco.org/ark:/48223/pf0000377231>

<sup>36</sup> <https://digital-strategy.ec.europa.eu/en/policies/online-disinformation>





