October 2020

Report of the National Security Council's Working Group on **Information Disorder and COVID-19**

Governmental Offices
National Security Council
Iceland

Report of the National Security Council's Working Group on **Information Disorder and COVID-19**

Contents

Overview

On 17 April 2020, the National Security Council decided to establish a working group of the National Security Council on information disorder and COVID-19. The group follows an approved plan of work.

The National Security Council is a forum for consultation on national security issues. Responsibility for administrative implementation in individual areas of national security lies with the relevant ministry, as provided for in the current Presidential Decree.

Permanent members of the National Security Council are the Prime Minister, as chairman of the Council, the Minister for Foreign Affairs and International Development Cooperation, the Minister of Justice and the Permanent Secretaries of these three ministries. In addition, two members of the Icelandic parliament Althingi, one from the parliamentary majority parties and the other from a party in minority, have seats on the Council. The Rear Admiral of the Icelandic Coast Guard, the National Commissioner of Police and a representative of the Icelandic Association for Search and Rescue are also members of the Council.

The working group is composed of contact persons from the relevant ministries and institutions who have a statutory role to play in the areas covered by the group's mandate or expertise in these areas. The working group consists of: Elfa Ýr Gylfadóttir, Managing Director of the Media Commission; Kjartan Hreinn Njálsson, from the Directorate of Health; Jón Gunnar Ólafsson, PhD in media and communications; Anna Lísa Björnsdóttir, communication media specialist; Guðrún Hálfdánardóttir, journalist; Þorgeir Ólafsson from the Ministry of Education, Science and Culture; Sigurður Emil Pálsson from the Ministry of Transport and Local Government; and María Mjöll Jónsdóttir and Ólöf Hrefna Kristjánsdóttir from the Ministry for Foreign Affairs. Thorunn J. Hafstein, Secretary General of the National Security Council, leads the work of the group.

1.
Objective and Role of the Working Group

The objective of the National Security Council's working group is to promote public health and health security by examining the extent of the spread of incorrect or misleading information about COVID-19 in Iceland, provide education on the importance of reliable information about COVID-19 and make it easier for the news media and the general public to check the reliability of such information.

The working group's role is also to make suggestions for measures to facilitate access to reliable sources and information on COVID-19, in part, in consideration of similar actions taken in neighbouring countries.

In accordance with its plan of work, the working group has undertaken the following projects:

1. examined the distribution of information on COVID-19 in order to get an overview of how the public accesses information about the pandemic and whether, and if so how, incorrect information about the virus and the disease has reached the public, including through social media. This survey was based on similar surveys that have been conducted, e.g. elsewhere in the Nordic countries and in the UK;

2. contributed to raising awareness and strengthening public wariness regarding information and the dissemination of information about COVID-19;

3. established collaboration with the editorial committee of the COVID-19 project of the Icelandic Web of Science (University of Iceland), with the aim of enabling the news media and the public to check easily the reliability of information they receive about COVID-19;

4. followed and participated in international co-operation on information about COVID-19, including under the auspices of the UN, NATO, EEA states and Nordic co-operation.

2.
Information and Public Health

The disease known as COVID-19 is caused by the SARS-CoV-2 coronavirus. The virus is highly contagious and the spread of the disease has already had a great impact worldwide. Public epidemic control measures which have been implemented due to COVID-19 call on every single person in this country to comply with them responsibly. This means, for example, to follow the disease control measures that are, in the estimation of the health authorities, best suited to prevent the spread of COVID-19.

A basic tenet of democratic society is that everyone can themselves examine and assess the reliability of the information they receive and form their own opinion accordingly. It is especially important in a time of serious public health threat to ensure ready access to the best possible information at all times about the main symptoms of COVID-19 and how the disease is transmitted between people. Such information can make a decisive difference for successfully curbing the spread of the virus in the community and preventing individuals from falling ill with COVID-19.

The most important mitigation measures, in order to curb the spread of the epidemic and its serious health consequences, are the responsible reactions and behaviour of each individual. Because of this, incorrect and misleading information about epidemic mitigation measures can have very serious consequences.

Incorrect and misleading information about the disease COVID-19, especially on social media, is a global problem. International agencies such as the World Health Organisation (WHO), the Organisation for Economic Co-operation and Development (OECD), the United Nations Educational, Scientific and Cultural Organisation (UNESCO) the European Union and others have taken issue with this and warned of information disorder in connection with COVID-19.[1] Shortly after the WHO issued a statement on the coronavirus pandemic on 30 January 2020, the agency set up a special information dissemination function called the WHO Information Network for Epidemics (EPI-WIN) in order to facilitate universal access to timely, reliable and easy-to-understand information about the disease.[2]

As the WHO and other international agencies have pointed out, COVID-19 is the first global pandemic where technological solutions and social media are systematically used to inform people about, among other things, the harmfulness of the virus that causes the disease and how to protect against it. At the same time, these same

"COVID-19 is the first global pandemic where technological solutions and social media are systematically used to inform people about, among other things, the harmfulness of the virus that causes the disease and how to protect against it."

---

[1] WHO has referred to the extensive distribution of false or misleading information about the pandemic as an "infodemic".

[2] https://www.who.int/teams/risk-communication/epi-win-updates

technological solutions and social media are used to spread false and misleading information that undermines governments' action to control the virus. One of the heads at WHO said in an interview with the medical journal Lancet:[3]

> *"We know that every outbreak will be accompanied by a kind of tsunami of information, but also within this information you always have misinformation, rumours, etc. We know that even in the Middle Ages there was this phenomenon. But the difference now with social media is that this phenomenon is amplified, it goes faster and further, like the viruses that travel with people and go faster and further. So, it is a new challenge, and the challenge is the [timing] because you need to be faster if you want to fill the void … What is at stake during an outbreak is making sure people will do the right thing to control the disease or to mitigate its impact. So, it is not only information to make sure people are informed; it is also making sure people are informed to act appropriately."*

On 23 September 2020, a joint press release issued by WHO and several other UN organisations and others drew attention to the harmful consequences of information disorder in connection with COVID-19 and called on states to take action to stop the spread of harmful information in connection with COVID-19.[4]

The dissemination of information by governments is an important aspect of efforts to promote effective disease control measures while at the same time combating fear and anxiety in society, as uncertainty can serve as fertile ground for rumours or misinformation that can have harmful consequences. The Icelandic government has been actively providing information since the country was declared in a state of uncertainty due to COVID-19 at the end of January. Regular press briefings have been held since the end of February, in addition to which an information website for COVID-19 is maintained (www.covid.is), providing information in eleven languages. Furthermore, the Directorate of Health and the Department of Civil Protection and Emergency Management of the National Commissioner of Police have devoted concerted efforts at disseminating information through the news media, either through interviews or by providing background information.

The provision of information in connection with the epidemic must also take into account the fact that it comprises a persistent public health situation around the world. An important part of long-term information provision will undoubtedly involve supplying the public with the best statistical data on the impact of the epidemic and the effects of preventive and other actions, not least with regard to its other health and social consequences. Such information is conducive to reinforcing individuals' responsible decisions concerning their own behaviour.

The cause of the current pandemic is a new type of coronavirus that has not previously been diagnosed in humans. Although the virus is closely related to the SARS virus, which caused a severe epidemic in 2002-2003, there was limited information about it at the beginning of 2020. Knowledge has increased about the virus's main characteristics, including how infectious it is and the medical consequences of infec-

---

[3] How to fight an infodemic, Lancet Volume 395, ISSUE 10225, P676, 29 February 2020: https://www. thelancet.com/journals/lancet/article/PIIS0140-6736(20)30461-X/fulltext

[4] https://www.who.int/news-room/detail/23-09-2020-covid-19-pandemic-countries-urged-to-take -stronger-action-to-stop-spread-of-harmful-information

tion, but much about the virus is still not fully clear, including its potential long-term effects on human health, as the virus appeared only a short time ago. The fact that this is a new and exotic pathogen has made the necessary information provision to the public more complicated than it otherwise would have been and, as a result, the situation has been ripe for the dissemination of information that there has not been time to verify scientifically. Health authorities have often had to change their emphases and messages to the public in the light of new knowledge about the nature of the virus that has been ascertained in research laboratories around the world. The emphases in information provision have therefore been under constant review and have sometimes undergone major changes at short notice. Constant and reliable communication with the public and the news media has been crucial when these changes in emphasis have been introduced.

The Icelandic administration has emphasised ensuring a steady and effective flow of information to the public and providing a variety of guidance. The information must be timely, reliable, clear and presented in a consistent manner. In this way, the public can receive reliable guidance on the state of affairs and how they can contribute to their own preparedness and the preparedness of society. Particular attention was paid to groups and individuals who do not have easy access to information, for example, persons who do not understand Icelandic or those who have a hearing impairment.

"The dissemination of information by governments is an important aspect of efforts to promote effective disease control measures while at the same time combating fear and anxiety in society."

Reliable and regular coverage by Icelandic news media has seldom mattered more to society than after the Department of Civil Protection declared the country to be in a state of uncertainty, and eventually a state of emergency, in the first instance. The news media have a significant role to play in disseminating important information to the public, in news reporting and presenting foreign news in an Icelandic context. The news media have provided live webcasts and disseminated a variety of content and news about the epidemic. Both newspaper and broadcast journalists have been given the opportunity to question experts at regular press briefings to shed more light on the information provided. Attention was drawn to this important role of the Icelandic media in a suggestion from the Media Commission on 20 March, to the effect that newspaper and broadcast journalists should be listed among front-line workers. That same day the National Commissioner of Police confirmed that news media personnel from newsrooms with specific editorial staff had been added to the Department of Civil Protection's list of front-line workers, who would have priority for primary and nursery school services, leisure activities and day-minders in connection with the coronavirus.

3.
Information Disorder

The concept of information disorder applies to incorrect or misleading information distributed intentionally or unintentionally.

In academic debate and at organisations such as UNESCO and the Council of Europe, the concept of information disorder has often been divided into three categories:[5]

Firstly, the concept includes misinformation, when incorrect information is unintentionally shared with no intention of causing harm.

Secondly, there is disinformation, when false information is knowingly shared with the intention of causing harm.

And finally, information disorder can take the form of malinformation, where genuine information is shared in order to cause harm. An example of this is when personal e-mails, which are not intended to be made public, are disseminated publicly.

Information disorder can negatively affect informed debate on social issues and its impact can be very damaging when the public interest depends on individuals and the general public having access to and being able to utilise correct information, e.g. on the measures which are effective in combating a dangerous epidemic. In so doing, it can seriously impact national security.

The deliberate distribution of false and misleading information is nothing new, but technological developments in recent decades have radically changed the social framework. "We have all experienced how technological development has changed the economy, culture and daily life of humankind. In the space of 10 years, a simple phone has become a supercomputer in our pocket and completely changed behaviour patterns - how we seek information, how we obtain banking services, travel services, purchases and innumerable other things. And last but not least, how we interact with each other."[6][7]

Throughout the world, the distribution of false and misleading information concerning COVID-19 has increased greatly, especially on social media. It has been said that in tandem with the viral epidemic there has been an infodemic, of incorrect

[5] Council of Europe: Information Disorder - Toward an interdisciplinary framework for research and policymaking https://rm.coe.int/information-disorder-report-2017/1680766412.

See also: https://www. coe.int/en/web/freedom-expression/information-disorder

[6] Kristín Ingólfsdóttir, former rector of the University of Iceland: Young People and the Challenges of the Future. Summary from the National Security Council's seminar on sovereignty and national security, see (in Icelandic): https://www.stjornarradid.is/librar- y/03-Verkefni/Almannaoryggi/Thjodar-oryggismal/Samtal um fullveldi.pdf

[7] https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(20)30565-X/fulltext

and misleading information, which has spread like a tidal wave over the internet and on social media.

This includes both information distributed in organised fashion and unintentionally, which can threaten people's health and undermine trust in health authorities. International co-operation efforts seek to combat this trend, with the aim of ensuring the security and public health of the population. More details on this are found in Section 8.

4.
New Technological Environment

Technological revolutions are often accompanied by societal changes. In the information age, information that was once considered private is accessible to many people, for example on social media.

Technology companies such as Google, Apple, and Facebook can now systematically collect vast amounts of data, whether on communication, conversations, friendships, location, shopping patterns, web browsing, emotional life, political views, local devices, fingerprints or photos. Technology companies can do this because the software we use, in computers or smart devices, is either manufactured by the technology companies themselves or uses the services they offer directly or indirectly. For example, if a browser is created by Google or Apple, information on searches is in some manner shared with these companies. The same can be said for almost all the "free" software we use, software that uses advertising networks such as Google Adsense or Facebook Audience Network.

Information collected in this way is important data in the hands of parties who wish to use it to influence or change people's behaviour. By utilising machine learning and other artificial intelligence (AI) technology, precise models of individuals' behaviour patterns and attitudes can be constructed and customised models or target groups created.

The technology companies themselves use such models, among other things, to sell people products with advertisements that are tailored to the target groups most likely to buy the product. The companies' algorithms can immediately learn from their own mistakes and adapt such target groups much more purposefully than was previously possible. They can check whether an advertisement with wording A or B is better suited to people who live in a certain place or suffer from a certain illness, and the result is obtained by automatic experiments on people in these groups. It is not yet clear how to prevent widespread misuse of this technology and data and of the extensive power that such companies now have because of the information they can correlate.

"A major portion of communication and information dissemination by the general public today takes place via the Internet and smart phones. Although it has never been as easy to access information, the quantity available is such that it can be difficult for us to analyse it and know what is worth looking at and interpreting."

A major portion of communication and information dissemination by the general public today takes place via the Internet and smart phones. Although it has never been as easy to access information, the quantity available is such that it can be difficult for us to analyse it and know what is worth looking at and interpreting. We therefore often rely on others in this regard, whether they are experts, the news media, our friends or other social media users.

It has never been easier to communicate false or misleading information. Technology that is accessible to the public makes falsification simple, for example, with video editing programs, deep fake technology, alterations to Wikipedia or by creating fake social media users. It often proves more difficult to refute such falsehoods than to create them.

In recent years, this technology has been used to try to influence people's opinions. Examples are known of technology companies being hired to distribute targeted advertising based on custom-tailored models to specific groups for the purpose of influencing election results or to encourage distrust of governments and institutions.

Our online existence and our reliance on information found there, especially when shared by someone we know or respect, creates new possibilities for influencing people. By guiding the debate using approaches that appeal primarily to emotions, it is possible to bend discussion of current affairs in an instant. Stories that create fear and anger or nurture other emotions and conspiracy theories are shared between friends and acquaintances more rapidly and more widely on social media than many facts.[8] The speed is such that sometimes it is impossible to verify and refute false statements before they have spread at lightning speed, and the damage is then often already done.

Stakeholders have eagerly availed themselves of online opportunities to influence people's attitudes and beliefs by confounding public discourse with customised propaganda and misleading information. For example, Facebook recently deleted 6.6 billion fake user accounts that the company found.[9]

Information disorder, the dissemination of false or misleading information, for example, through fabrications or by systematically appealing to emotions, can become a systematic tool to undermine facts, breed division or tarnish the reputation of competitors. The impact can be further enhanced by leveraging technology companies' methodologies, such as data collection and artificial intelligence, to skew the message and find a receptive audience. Systematic use of information disorder can lead to splintering of solidarity and social cohesion, by eroding public trust between different groups and in the state itself and its institutions.

Today's technological revolution brings with it difficult challenges. Every one of us has to deal with philosophical questions such as the nature and origin of the truth when fakes have become impeccable, and whether the trust we are used to showing in the real world can be applied to the online world. This makes it urgent to train alertness, critical thinking and media and information literacy and to examine the impact of these technological innovations holistically on all aspects of society.

---

[8] Study On Twitter, false news travels faster than true stories Research project finds humans, not bots, are primarily responsible for spread of misleading information. https://news.mit.edu/2018/study-twitter-false-news-trayeis-faster-true-stories-0308

[9] https://www.webmasterworld.com/facebook/4986610-2-30.htm

5.
Media Literacy

In today's digital world, it is becoming increasingly important for users to acquire the skills to understand how information, ideas and opinions are created and how they are presented and communicated. Media literacy, in the broadest sense of the term, i.e. the ability to use and understand social media, the Internet, audio and visual media, advertising etc., is an important prerequisite for actively participating in democratic debate.

The media have a major social and economic impact and are a forum for democratic debate. The media can bring people together or foster division. Parties who wish to use the influence of the media for dubious purposes have various ways of achieving their goals, among them information disorder.

Until now, discussion of the importance of media literacy has focused mainly on children and young people. This is reflected in current efforts in Iceland, where various parties are working to promote media literacy in different ways and through different fora. For example, digital literacy, media education and media literacy are dealt with in the National Curriculum Guide for Compulsory Schools. The organisation Heimili og skóli (Home and School) has for years conducted an awareness campaign to promote the safe and positive use of computers and new media by children and adolescents in Iceland through the SAFT project. Promoting increased media literacy among the general public is also one of the statutory tasks of the Media Commission. A media literacy strategy needs to include all age groups and aim to increase understanding of different messages in different media, to assist users in identifying how messages are conveyed through media and how media can be opinion-forming.

> **"Information disorder, the dissemination of false or misleading information, for example, through fabrications or by systematically appealing to emotions, can become a systematic tool to undermine facts, breed division or tarnish the reputation of competitors."**

Media literacy is high on the agenda in other Nordic countries, and ever greater emphasis is being placed on promoting media literacy due to changing communication and distribution channels for information in modern society.

A joint meeting of Nordic Media Committees, held in Reykjavík on 13 and 14 May 2019, brought to light many interesting points concerning media literacy. Special mention should be made of a survey conducted by the Norwegian Media Committee last year on media literacy among Norwegian users.[10] The survey revealed that most of the persons least skilled in media literacy fall either into the group of young people under the age of 30 or those aged 60 and over. Those who have moderate skills but lack knowledge of new media are for the most part 60 years and older. According to

---

[10] https://medietilsynet.no/globalassets/dokumenter/rapporter/kritisk-medieforsta-else-under-sokelser-2019-2020/200326-kritisk medieforstaelse samlerapport-oppdatert-sidetall-27 mars.pdf

the survey, persons in this group have knowledge of traditional media but not online and social media. Their ability to spot false and misleading information is limited as they lack knowledge of technical resources, such as using search engines. Nor do they realise the role of cookies and the connection between what they search for online and what they are shown, e.g. on Facebook.

One of the most effective ways to combat information disorder is to raise public awareness of it and increase training in checking sources. One of Iceland's priority projects for its Presidency in the Nordic Council in 2020 is to safeguard democracy by fighting information disorder and fake news. One aspect of this is to increase public awareness of the dissemination of false information and fake news, so that as many people as possible will be conscious of the dangers involved in such dissemination.

The Nordic Council's Committee for Knowledge and Culture proposed in September 2020 to adopt a common strategy for media and information literacy and to set up a Nordic working group which would formulate a comprehensive strategy for joint Nordic action in this area, including all age groups.

6.
Survey of Information Dissemination concerning COVID-19

The working group, in collaboration with the research company Maskína, constructed a survey, which was sent out between 18 and 29 June this year. A total of 840 respondents, who were selected at random from the National Registry, answered the survey. The questions concerned, among other things, how people obtained information about the coronavirus and COVID-19, trust in the information disseminated, and whether, and if so how, misleading or incorrect information about the virus and the disease had reached the public. After the second wave of COVID-19 occurred, it was decided to repeat parts of the survey to see if there had been a change in the main results since the previous survey in June. The latter survey was sent out 13-20 August, with a total of 891 respondents, selected at random from the National Registry.

The two surveys were based on similar surveys that have been conducted abroad, including in the other Nordic countries, the UK, the US, Germany and Spain. The group acquainted itself, for example, with questions in surveys conducted by the Norwegian Media Commission, [11] Gallup in the US,[12] the UK Office of Communications (Ofcom)[13] and the Reuters Institute at Oxford University.[14] These international surveys have, among other things, sought to find out where people obtain information about COVID-19, which information sources people trust the most, how much incorrect or misleading information people have seen on COVID-19, and what this incorrect or misleading information concerned.

All results of the Maskína survey in June can be accessed here [in Icelandic], and from the survey in August here [in Icelandic]. Furthermore, all answers from both surveys are available on Maskína's dashboard here [in Icelandic]. A more detailed summary is also provided there, in which the answers are analysed by background variables (gender, age, residence, education and income), and with detailed answers to all questions in the surveys.

The following is a review of the main results of the two surveys that Maskína carried out. Where appropriate, the answers are discussed in relation to those in the foreign surveys used as reference. The Icelandic surveys were not conducted at the same time as all the surveys abroad and this affects the comparison. Despite this, the results give some indication of the situation in Iceland in comparison with other countries. As can be seen from the two Icelandic surveys conducted in June and August, not much changed during the intervening period, i.e. except for a few

---

[11] https://medietilsynet.no/globalassets/publikasjoner/2020/203030-_omnibus-om-falske-nyheter-i--forbindelse-med-korona-fra-medietilsynet.pdf

[12] https://news.gallup.com/poll/310409/americans-struggle-navigate-covid-infodemic.aspx

[13] https://www.ofcom.org.uk/research-and-data/media-literacy-research/coronavirus-resources

[14] https://reutersinstitute.politics.ox.ac.uk/infodemic-how-people-six-countries-access-and-rate--news-and-information-about-coronavirus
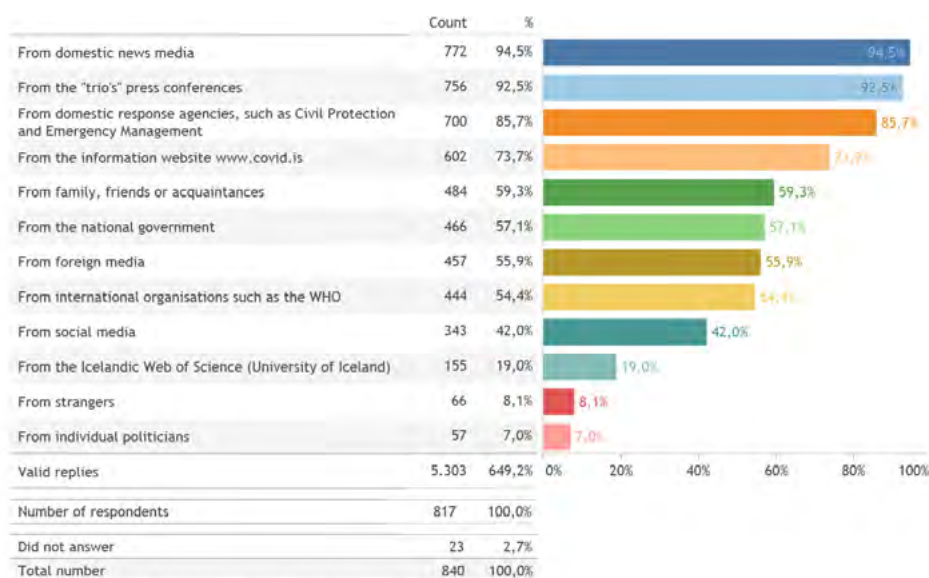
answers discussed below which are related to measurements regarding a seven-day period in June and August. The questions in the Icelandic surveys based on questions in the international surveys were not in all cases exactly the same, as they were adapted to better suit the Icelandic situation.

6.1. Information Providers

The surveys conducted in June and August revealed that most Icelanders consider themselves well-informed about the coronavirus and the disease it causes, known as COVID-19. In the June survey, a total of 79.3% of respondents said they were very well or fairly well informed and 20.2% said they were moderately informed. Only 0.5% said they were rather poorly informed and none very poorly informed. The answers changed little in August, when 82.1% said they were very well or fairly well informed, 16.8% said they were moderately informed and only 1.1% said they were rather poorly or very poorly informed. In comparison, 58% of US respondents said they were well-informed about the coronavirus in a Gallup poll conducted there in April. According to these figures, Icelanders therefore felt themselves to be much better informed than Americans at the time the surveys were conducted.

In Maskína's survey in June, respondents were asked where they had obtained information on the coronavirus and COVID-19 since the first infection was diagnosed in Iceland. As Figure 1 shows, 94.5% of respondents had obtained information from domestic news media and a similar number, 92.5%, from the press conferences held by three official representatives, known as "the trio".[15]

Figure 1. **Where people have obtained information about the coronavirus and COVID-19 since the first infection was diagnosed in Iceland** (Maskína's survey in June 2020)

	Count	%
From domestic news media	772	94,5%
From the "trio's" press conferences	756	92,5%
From domestic response agencies, such as Civil Protection and Emergency Management	700	85,7%
From the information website www.covid.is	602	73,7%
From family, friends or acquaintances	484	59,3%
From the national government	466	57,1%
From foreign media	457	55,9%
From international organisations such as the WHO	444	54,4%
From social media	343	42,0%
From the Icelandic Web of Science (University of Iceland)	155	19,0%
From strangers	66	8,1%
From individual politicians	57	7,0%
Valid replies	5.303	649,2%
Number of respondents	817	100,0%
Did not answer	23	2,7%
Total number	840	100,0%

*It was possible to select more than one answer, therefore the number of answers is greater than the number of respondents.

[15] The so-called trio is comprised of Alma D. Möller, Director of Health; Þórólfur Guðnason, Chief Epidemiologist; and Víðir Reynisson, Chief Constable of the Department of Civil Protection.

85.7% had obtained information from domestic emergency agencies such as the Department of Civil Protection and Emergency Management of the National Commissioner of Police, the Directorate of Health and the National University Hospital of Iceland, 73.7% from the website covid.is, 59.3% from family, friends and acquaintances, 57.1% from the national government, 55.9% from foreign news media, 54.4% from international organisations such as WHO, 42% from social media, 19% from the Icelandic Web of Science (University of Iceland), 8.1% from strangers and 7% from individual politicians.

In comparison, the same survey in June asked about participants' information gathering over the past seven days. Exactly the same answer options were given and most figures decreased considerably, apart from that for domestic news media (which decreased from 94.5% to 92%). It is worth noting that there was very little domestic infection at that time, which could to some extent explain this decrease. It is interesting to compare these results with the same question in the survey in August. New infections were then being detected and people were again asked where they had obtained information from in the last seven days.

Figure 2. **Where people have obtained information about the coronavirus and COVID-19 during the past seven days** (Maskína's survey in June and August 2020)
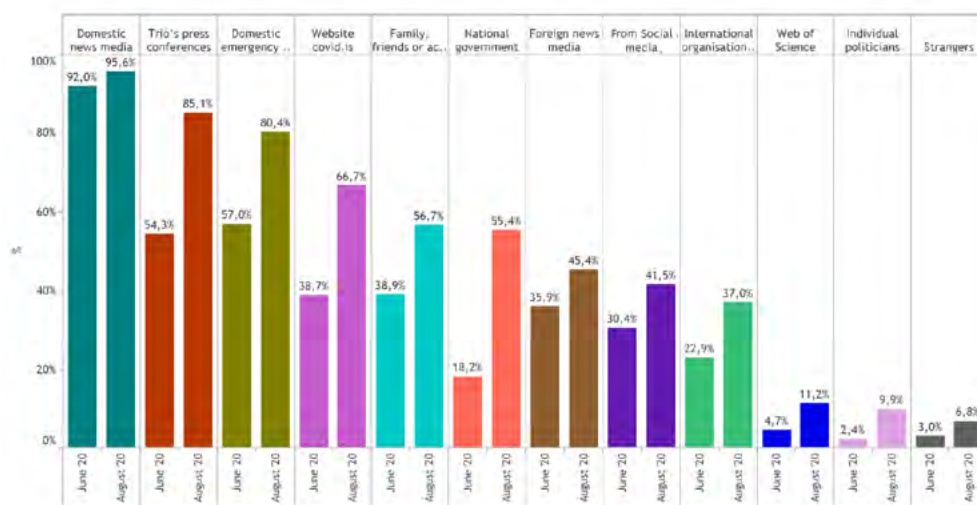
Where have you obtained information on the coronavirus and COVID-19 during the past seven days?

As Figure 2 shows, the proportion increases for all answers in August, which are more similar to the answers from June when asked about information accumulated since the first infection was diagnosed in Iceland. It seems, therefore, that people changed their information gathering practices considerably after the virus reappeared in late summer. According to these figures, respondents began to pay more attention and obtain more detailed information in August.

Compared to a survey conducted in six countries (the UK, US, Germany, Spain, South Korea and Argentina) for the Reuters Institute at Oxford University in March and April, Icelanders generally seem to acquire a lot of information about the coronavirus and COVID-19 through the news media. For example, 59% of respondents in the

UK, 54% of those in the US, 47% of Germans, 74% of Spaniards, 77% of South Koreans and 74% of Argentines said they had obtained information through the news media over a seven-day period (compared to 92.0% and 95.6% of Icelanders who had relied on the domestic news media over a seven-day period in June and August). Furthermore, Icelanders seem more likely to receive information from emergency agency experts rather than respondents in the other countries, cf. 35% of respondents in the UK who said they acquired information from scientists, doctors and other health professionals over a seven-day period. The same was true for 49% of respondents in the US, 44% of Germans, 39% of Spaniards, 21% of South Koreans and 45% of Argentines. In Iceland, 57% said they had acquired information from domestic emergency agency experts in June (when there was little infection in the community) and this figure rose to 80.4% in August when the number of infections had increased again. In August, 85.1% also said they had followed the trio's press conferences over the past seven days. In Maskína's survey in June, respondents were asked what search engines and/or social media they had used to access news or information on the coronavirus and COVID-19 since the first infection was diagnosed in Iceland. The vast majority had used Google (63.4%) and Facebook (37.1%), and far fewer YouTube (6.9%), Twitter (5.6%), Instagram (4.7%), Snapchat (1.3%) and TikTok (0.4%).

Respondents were also asked in the June and August surveys which search engines and/or social media they had used in the past seven days. As Figure 3 shows, the proportion increases for all answers in August, which are more similar to the answers from June, when the question concerned information accumulated since the first infection was diagnosed in Iceland. As mentioned previously, it seems that people changed their information gathering practices considerably after the virus reappeared in late summer. Respondents seem to have followed events more closely and obtained more information in August compared to June.

Figure 3. **What search engines and/or social media people have used to access news or information on the coronavirus and COVID-19 during the past seven days** (survey by Maskína in June and August 2020)
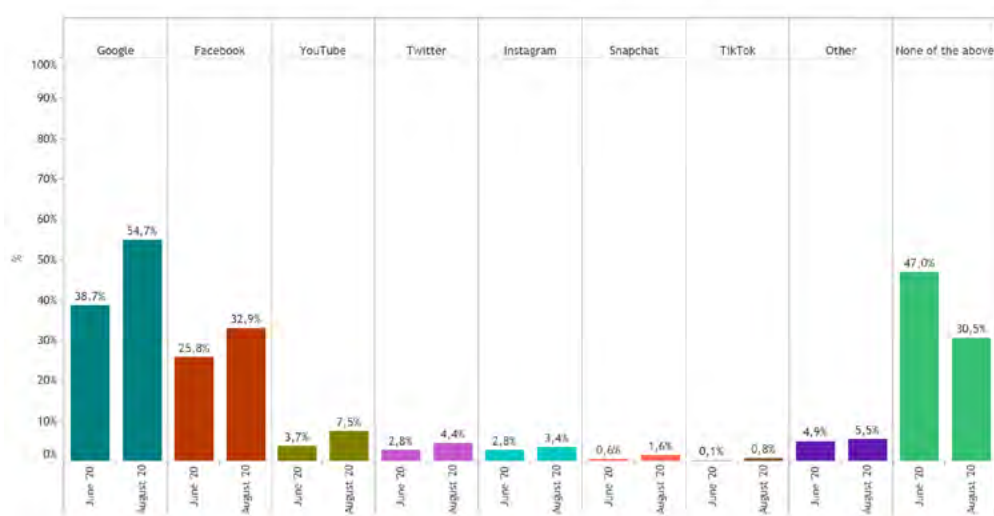

Which of the following search engines and/or social media have you used to access news or information on the coronavirus and COVID-19 during the past seven days?

Compared to the aforementioned survey for Reuters Institute for a seven-day period it is apparent that in the six countries it is considerably more common to access news about the coronavirus and COVID-19 on social media other than Facebook if the results are compared with the answers from Iceland. As in Iceland, Facebook and Google were the most popular social media/search engines in the UK, US, Germany, Argentina and Spain, while Twitter is used much more in the UK (19%), the US (18%) and Spain (30%) than in Iceland to judge from the Icelandic results (2.8% in June and 4.4% in August). YouTube is also much more popular in the UK (15%), the US (26%), Germany (21%), Spain (26%), South Korea (46%) and Argentina (46%), compared to the results in Iceland (3.7% in June and 7.5% in August).

The Gallup poll in the US in April found that 36% of respondents felt they have received too much information about the coronavirus. The proportion in Iceland is considerably lower. As Figure 4 shows, 16.8% felt they had far too much or somewhat too much information in June and the proportion had risen to 21.1% in August (based on the amount during the last three months). The vast majority thought they had received an appropriate amount of information, 81.5% in June and 76.1% in August. Only 1.7% thought they had received somewhat too little or far too little information in the survey in June and 2.7% in the survey in August.

Figure 4. **Do people think they have received too much, an appropriate amount or too little information about the coronavirus and COVID-19** (Maskína's survey in June and August 2020)
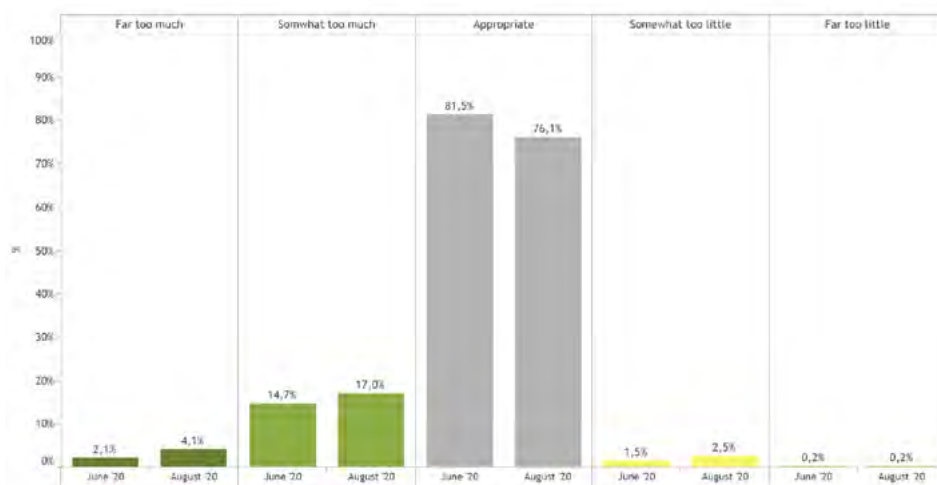

Do you think you have received too much, an appropriate amount or too little information about the coronavirus and COVID-19 in the last three months?

6.2. **Trust in information**

Trust in the information provided at the trio's press conferences was measured at 95.8% in June and 95.3% in August, as can be seen in Figure 5. Trust in information from domestic emergency agencies was 96.4% in June and 94.9% in August. Over 90% trusted the information website covid.is to disseminate reliable information, 90.4% in June and 91.4% in August. In June, 82.6% of respondents trusted the dissemination of information in the national news media and 82.1% did so in August.

In contrast, 9.4% trusted social media to disseminate reliable information about COVID-19 in June and 10.6% in August. Foreign news media enjoyed the trust of 42.7% of participants in the survey in June and 46.2% in August. In total, just over 77% trusted the University of Iceland's Web of Science, 77.1% in June and 77.6% in August, and trust in the government was 64.1% in June and had increased to 68.4% in August.

Figure 5. **Trust in the dissemination of reliable information about the coronavirus and the disease COVID-19** (Maskína's survey in June and August 2020).
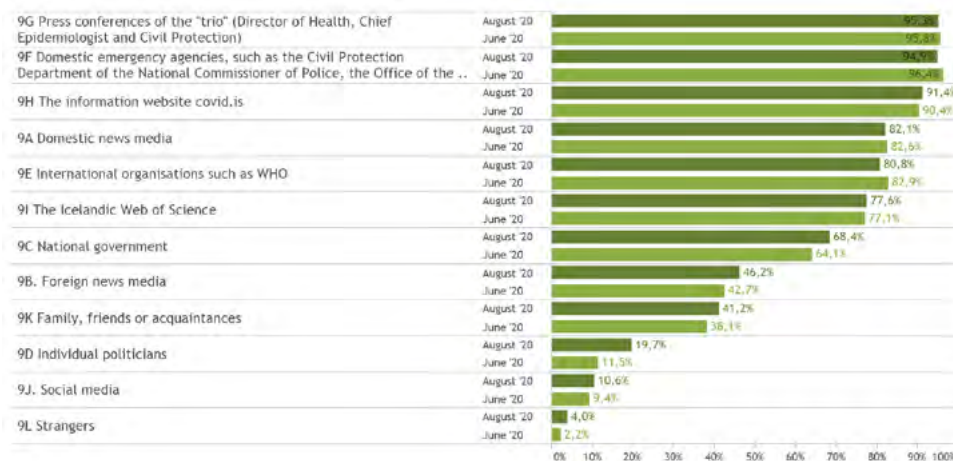
How well or little do you trust the following to share reliable information about the coronavirus and COVID-19? / Proportion of those who answered, "Very well" or "Fairly well".

When asked about trust in the dissemination of information by individual politicians, 11.5% of respondents said they trusted such information on the coronavirus in June and in August the proportion who trusted their information had risen to 19.7%. Confidence in information from international organisations such as WHO measured 82.9% in June and 80.8% in August.

Scientists, physicians and other health professionals are highly trusted to disseminate information about the coronavirus in all six countries surveyed by the Reuters Institute at Oxford University in March and April, but nowhere are figures as high on trust as for the trio in Iceland (95.8% in June and 95.3% in August). In the UK, 87% said they trusted the experts, 80% in the US, 74% in Germany, 84% in Spain, 81% in South Korea and 90% in Argentina.

In the Reuters Institute survey, confidence in the news media was 60% in the UK, 52% in the US, 58% in Germany, 51% in Spain, 67% in South Korea and 63% in Argentina. In comparison, confidence in the domestic news media in Iceland was 82.6% in June and 82.1% in August, as previously stated. In Maskína's surveys, 64.1% (in June) and 68.4% (in August) said they trusted the national government, compared with 45% in the US, 59% in Germany, 69% in the United Kingdom, 46% in Spain, 66% in South Korea and 70% in Argentina.

In the Icelandic surveys, trust in social media to disseminate reliable information about the coronavirus and COVID-19 is much lower, at 9.4% in June and 10.6% in

August. In the Reuters Institute surveys of March and April, 14% of respondents in the UK said they trust social media, 25% in the US, 15% in Germany, 23% in Spain, 40% in South Korea and 40% in Argentina. According to these figures, Icelandic respondents seem to trust the national news media well to disseminate information about the coronavirus and COVID-19 but trust social media much less to do so, and the figures for trust in social media are lower in Iceland than in the six countries that took part in surveys by the Reuters Institute at Oxford University.

6.3. Incorrect and misleading information about the coronavirus and COVID-19 disease

Respondents in the Maskína surveys in June and August were asked how much or how little incorrect or misleading information about the coronavirus and COVID-19 they had seen/heard since the first infection was diagnosed in Iceland. As Figure 6 shows, 29.3% of respondents said they had seen very much or fairly much incorrect or misleading information in the survey in June and the proportion was 29.5% in the survey in August.

Figure 6. **Amount of incorrect or misleading information about the coronavirus and COVID-19 since the first infection was diagnosed in Iceland** (Maskína's surveys in June and August 2020)
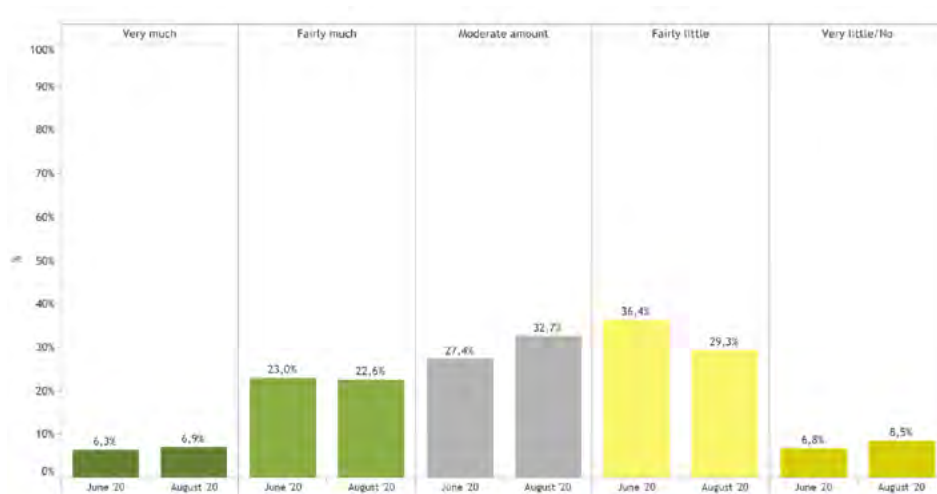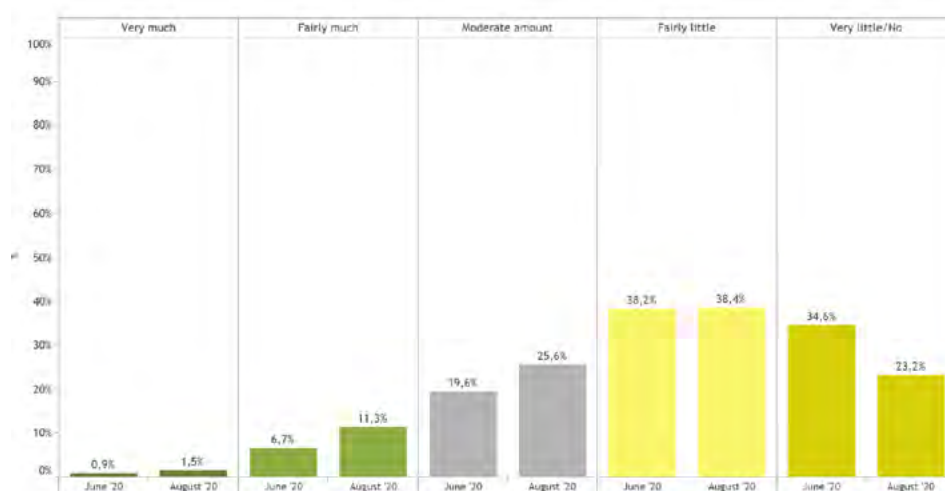

How much or how little incorrect or misleading information about the coronavirus and COVID-19 have you seen/heard since the first infection was diagnosed in Iceland?

In June, 27.4% said they had seen a moderate amount of incorrect or misleading information, and this proportion had risen to 32.7% in August. On the other hand, 43.2% said they had seen fairly little or very little/no incorrect or misleading information in the survey in June, and in August the proportion was 37.8%.

In June, 56.7% of respondents had therefore seen a moderate amount, fairly much or very much incorrect or misleading information and the proportion was 62.2% in the survey in August.

Respondents were also asked the same question, with the same possible answers, regarding the past seven days. Here the proportion of those who had seen fairly much or very much incorrect or misleading information dropped significantly.

Figure 7. **Amount of incorrect or misleading information about the coronavirus and COVID-19 during the past seven days** (Maskína's surveys in June and August 2020)

How much or how little incorrect or misleading information about the coronavirus and COVID-19 disease have you seen/heard in the last seven days?

As Figure 7 shows, 7.6% of respondents said they had seen very much or fairly much of incorrect or misleading information in the last seven days in June and the proportion was 12.8% in August.

In the survey in June, 19.6% said they had seen a moderate amount of incorrect or misleading information during the past seven days and the proportion rose to 25.6% in the survey in August. On the other hand, 72.8% said they had seen fairly little or very little/no wrong or misleading information during the last seven days in the survey in June and the proportion was 61.6% August.

In June, 27.2% of respondents had therefore seen a moderate amount, fairly much or very much incorrect or misleading information during the last seven days in June and the proportion was 38.4% for the past seven days in August.

By comparison, 30% of respondents in a survey conducted for Ofcom in the UK had seen incorrect or misleading information about COVID-19 during a seven-day period in a survey conducted in the UK in June. In a similar survey conducted by Ofcom in August, the proportion of UK respondents who had seen incorrect or misleading information about COVID-19 over a seven-day period was similar to that in June, or 27%.

In Maskína's Icelandic surveys, respondents were asked whether they had seen this incorrect or misleading information in Icelandic or in a foreign language. As Figure 8 shows, 13.7% had seen all or most of it in Icelandic in the survey in June and the proportion was 17% in the survey in August.

Figure 8. **In what language respondents saw incorrect or misleading information on the coronavirus and COVID-19** (Maskína's surveys in June and August 2020).
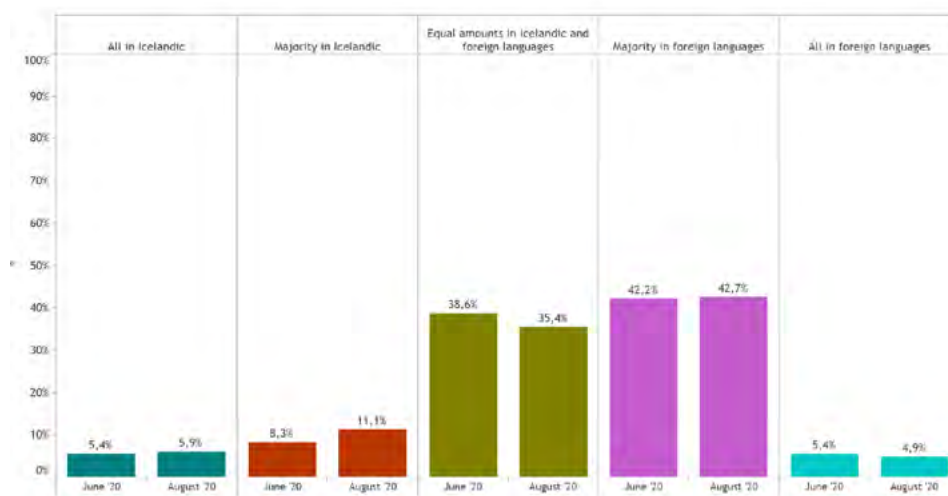
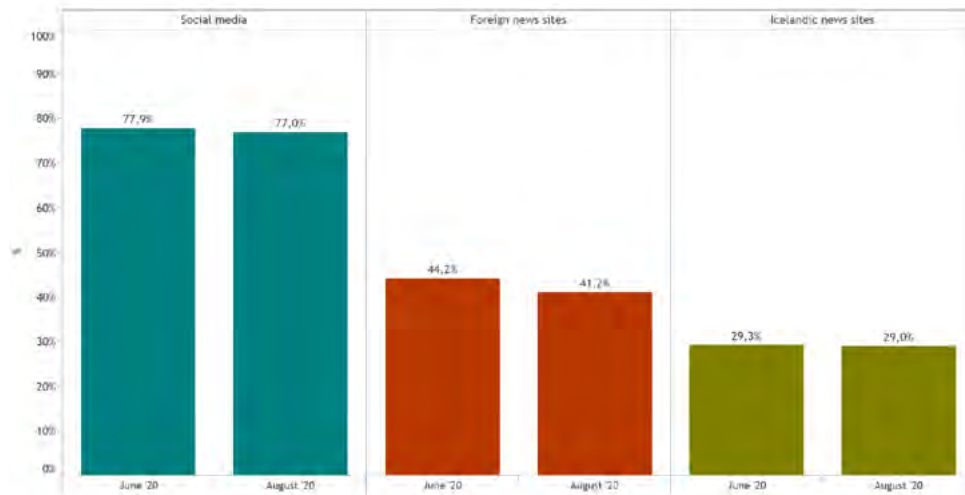Did you see this incorrect or misleading information in Icelandic or a foreign language?

Another 38.6% had seen incorrect or misleading information equally in Icelandic and foreign languages in the survey in June and this proportion was 35.4% in the survey in August.[16] Nearly half of the respondents, or 47.6%, had seen incorrect or misleading information primarily or entirely in a foreign language in the survey in June, and the proportion was exactly the same in August, 47.6%.

In Maskína's surveys, respondents were also asked from where they had received this incorrect or misleading information. The vast majority, 77.9%, said they had obtained it on social media in the survey in June, and the figure had changed little in August, when 77% had obtained it on social media, as shown in Figure 9. The proportion of respondents who had acquired incorrect and misleading information through foreign news sites was 44.2% in the June survey and 41.2% in August. Few people had acquired incorrect or misleading information through Icelandic news sites, 29.3% of respondents in June and 29.0% in August.

The Norwegian Media Commission asked a similar question in Norway in March. At that time, 38% of respondents had obtained incorrect information about the coronavirus through social media, 9% through Norwegian news sites and 6% through foreign news sites. This survey was conducted in the early days of the epidemic, which undoubtedly affects the comparison, but it is interesting to note that the proportion is by far the highest for social media, as in the Icelandic results.

---

[16] Only persons who did not answer "Very little/no" regarding incorrect and misleading information they had seen (results shown in Figures 6 and 7) were asked this question and the following one.

Figure 9. **Where respondents acquired incorrect or misleading information about the coronavirus and COVID-19** (Maskína's survey in June and August 2020)

From where did you receive this incorrect or misleading information?

In Maskína's surveys in June and August, there was also an open-ended question where respondents were asked: What misrepresentations or misleading information have you seen or heard about the coronavirus and COVID-19 disease? Respondents wrote their answers and Maskína's experts went through them and categorised the answers afterwards. These were therefore issues that the respondents themselves considered to be incorrect or misleading information.

Figure 10. **Open question: Misrepresentations or misleading information about the coronavirus and COVID-19** (Maskína's survey in June and August)
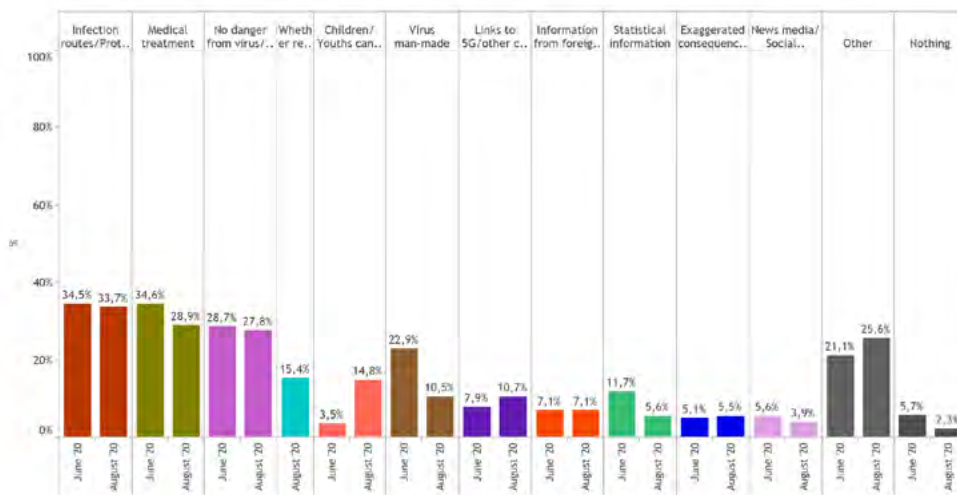
What misrepresentations or misleading information have you seen or heard about the coronavirus and COVID-19 disease?

Among the most common responses were aspects related to infection protection, which 34.5% mentioned in June and 33.7% in August, as can be seen in Figure 10. Medical treatments were mentioned by 34.6% in the June survey and 28.9% in August. It was also common for people to have seen or heard something to the effect that the virus presented no danger, that the danger was not real or was over. In June 28.7% wrote something in connection with this and in August 27.8%. In the survey in June, 22.9% mentioned something related to the virus being man-made, but this proportion had dropped to 10.5% in August.

In the survey in August, 15.4% wrote something related to whether it was possible to become infected again but this response did not appear in the results in June. In the June survey, 3.5% mentioned that children and young people could not be infected, and this proportion had risen to 14.8% in August. In June 7.9% mentioned the coronavirus's association with 5G or other conspiracy theories, and this proportion had risen to 10.7% in August.

In June 7.1% mentioned information from foreign politicians and the proportion was the same in August. Also, 11.7% mentioned something related to statistics in June and 5.6% in August. In the survey in June 5.1% wrote of exaggerated consequences and almost the same proportion in August, or 5.5%. In June 5.6% mentioned something related to news media/social media and 3.9% in August.

Responses classified under "other matters" were 21.1% in June and 5.7% wrote nothing, while responses mentioning other matters were 25.6% in August and those with nothing meaningful were 2.3%.

The June survey by Maskína revealed that very few respondents believed common misrepresentations and conspiracy theories about the coronavirus, such as that 5G telecommunications technology affected its spread. Details of all the results of the two surveys are available on the [Maskína Dashboard](#) [in Icelandic].

7.
Raising Awareness – a survey of the reliability of information about the coronavirus and COVID-19

I n the new technological environment, everyone has to decide on the legitimacy of the information they receive and whether it is safe to trust it. This is especially true when unsubstantiated allegations and untruths can have serious health and social consequences.

7.1 The Awareness Campaign of the Media Commission

The Media Commission presented to the working group its plans to launch an awareness campaign against fake news to be published on the Commission's website. The ideas for the campaign were discussed in the working group and promotional and educational material was examined and reviewed.

The awareness campaign Stop, Think, Check, which took place on Facebook and Instagram this spring, reached over 230,000 individuals in Iceland. The campaign was sponsored by the Media Commission, in collaboration with the Directorate of Health and the University of Iceland's Web of Science. Facebook supported the project by publishing educational material related to the campaign free of charge.

The campaign began on 20 May 2020 with the publication of educational material on Facebook, Instagram and on the website of the Media Commission,[17] and lasted for four weeks. Particular attention was directed at misrepresentations and misleading information about the coronavirus and COVID-19 disease on social media. The campaign consisted of a video, a quiz and educational material on the Media Commission's website, with links to information about the coronavirus and COVID-19 on the Web of Science and on the website of the Directorate of Health.

Educational material published in connection with the campaign reached a total of 232,256 individuals in Iceland and visual material connected to the campaign was viewed over 2 million times. More than 15,000 people viewed educational material on the Media Commission's website following advertisements on social media, and about 250 shared the material with others on Facebook. An additional 14,000 people visited the Commission's website after participating in the quiz.

The quiz attracted the attention of 22,000 people who clicked on it, and 8,871 spent an average of just over four minutes answering the questions. Many answered all the questions in the quiz correctly. Although there was no significant gender difference in participation and views, a breakdown by age group shows that the campaign reached older age groups best and the age group 65 years and older especially.

The awareness campaign Stop, Think, Check was based on a Norwegian model; the material was translated and localised by staff of the Media Commission, with the kind permission of the media regulator Medietilsynet in Norway. The aim of

---

[17] https://fiolmidlanefnd.is/stoppa-hugsa-athuga/

the campaign was to focus the public's attention on the dissemination of false and misleading information on social media and the importance of being able to distinguish between fake news and real news. The campaign also aimed to strengthen the critical thinking and media literacy of the public and point out the importance of information in the news media.

7.2 **The Icelandic Web of Science** (University of Iceland)

While there is no way of stopping the flood of false or misleading information about a dangerous disease that demands responsible behaviour of all individuals, to prevent serious consequences it is important to educate people and offer ready access to facts.

In the current situation, the importance of science, expert knowledge and collaboration in as many areas as possible is clear to everyone.

In order to make it easier for the news media and the public in Iceland to check the reliability of information they receive about COVID-19, the working group enlisted the co-operation of the Icelandic Web of Science, which is run by the University of Iceland.

The collaboration between the Web of Science and the working group of the National Security Council on information disinformation and COVID-19 is intended to make it easier for the news media and the general public to check the reliability of information they receive in a similar manner as is done in many other countries with which Iceland co-operates in various fields. The collaboration also means that the news media can reach out to scientists through the editors of the Web of Science to verify information regarding the pandemic.

The University of Iceland's Web of Science provides informed discussion on all aspects related to viruses and COVID-19, and a special expert editorial board was set up to focus on these topics. In recent months, the editorial board and other experts of the Web of Science have answered many questions that are accessible on the Science Web.

"The aim of the campaign was to focus public attention on the dissemination of false and misleading information on social media and the importance of being able to distinguish between fake and real news. The campaign also aimed to strengthen the critical thinking and media literacy of the public and point out the importance of information in the media."

The answers can be viewed in a special section of the Web of Science entitled COVID-19 - Informed Discussion[18] and also on the website covid.is[19] and through social media with the designation of the Web of Science, the Directorate of Health and the National Commissioner of Police's Civil Protection Committee.

Anyone can contact the editorial board of the Web of Science to verify information related to COVID-19.

The Directorate of Health and the Web of Science work together to answer and keep track of inquiries, both those sent to the website covid.is and sent to the Web of Science.

The above was presented at a special meeting of the Directorate of Health with the news media at the beginning of May.

---

[18] https://www.visindavefur.is/flokkur/249/covid-19-upplyst-umraeda/

[19] https://www.covid.is/spurt-og-svarad

7.3 **covid.is**

The website covid.is has proved to be an important tool for the health authorities. Soon after the first wave of the new coronavirus struck Iceland it became clear that the enormous amount of information published by the Directorate of Health in connection with the epidemic had to be disseminated in an accessible and user-friendly format. The original version of the website was an attempt by the information team of the Civil Protection Department of the National Commissioner of Police and the health authorities to educate and empower the public to combat the epidemic. Later, covid.is became a central information portal for a variety of actions related to the epidemic, including advice for those suffering from anxiety or mental problems, information on current restrictions, labour market measures, statistics concerning the coronavirus and the COVID-19 disease and much more. Now the website is also the main source of information for persons who intend to travel to Iceland, as it contains pre-registration forms for passengers as well as important information about measures in this country. As long as the epidemic caused by the new coronavirus is raging, the website covid.is will serve its purpose.

The developmental work that has taken place in the creation of the website is important and could prove useful in the civil protection response system in the future. The working group took the initiative in making information on covid.is, almannavarnir.is and landlaeknir.is (the website of the Directorate of Health) accessible in Icelandic on the Facebook information centre on the coronavirus and the COVID-19 disease.

8.
International Co-operation

In its work, the group took into consideration international co-operation on actions against information disorder in which the Icelandic government participates through international organisations and in collaboration with neighbouring and partner countries.

The Icelandic government is part of the Nordic-Baltic co-operation group on information disorder and an informal Disinformation Coalition against information disorder along with other Nordic countries, the Baltic States, the US, the UK, the Netherlands, Canada and Poland. At the initiative of the Icelandic government, former minister Björn Bjarnason was commissioned to write a joint Nordic report on increased Nordic co-operation in security matters. The report includes a discussion of hybrid threats such as information disorder, with a special focus on the pandemic in this context. Under Iceland's current Presidency of the Nordic Council, information disorder and fake news have been one of the priority projects, and the Nordic Council's Committee for Knowledge and Culture will work on drafting a common strategy on media literacy, as referred to in Section 5.

The Icelandic government also monitors discussion, actions and analysis of information disorder by the UN, UNESCO, the European Union, WHO and NATO.

These organisations have systematically addressed the information disorder associated with COVID-19, which has also been referred to as an infodemic. A special campaign was launched by the UN and WHO to combat this information disorder. The organisations used social media, among other things, to spread relevant information and correct misunderstandings and misrepresentation of the nature of the epidemic, preventive measures, treatment and other aspects related to the epidemic. The Icelandic government finances a project that promotes media development in developing countries through UNESCO, in which emphasis is placed, for instance, on study courses to increase knowledge of information disorder. Iceland is also a member of an alliance of states working together to protect the freedom of the news media internationally, as the human rights and security of news media personnel has been seriously threatened in many parts of the world.

Within NATO and the Nordic-Baltic co-operation group there have been reports that a substantial flow of false and misleading information has been deliberately spread in the member states with the aim of undermining trust and democratic values under the turmoil and fear that the pandemic has brought to society.

Information disorder is one of the main concerns of the NATO Strategic Communications Centre of Excellence in Riga, as well as one of the tasks of the European Centre of Excellence for Countering Hybrid Threats in Helsinki. Participation in the work

of these institutions is being examined by the Icelandic government, which could increase skills and knowledge of best practices for detecting and defending against information disorder.

Three members of the working group have participated in international meetings on challenges posed by information disorder and COVID-19. Kjartan Hreinn Njálsson gave a lecture at a meeting at NATO StratCom in Riga on 28 April on the response to COVID-19 in Iceland. Anna Lísa Björnsdóttir took part in a meeting held by the Helsinki Commission on information disorder, COVID-19 and the run-up to elections. In the spring Elfa Ýr Gylfadóttir attended meetings of the European Regulators Group for Audiovisual Media Services (ERGA) on the COVID-19 infodemic. The group has, among other things, monitored compliance with the code of practice by international technology companies in order to prevent the spread of false or misleading information and fake news in European states (see further Section 9.2).

The working group also held two online meetings with representatives of UK authorities. At the meetings, the UK representatives gave an account of the activities of a special Counter Disinformation Unit, a collaboration between the UK government and social media companies entitled Working with Social Media Platforms and the programme Media Literacy in Relation to Disinformation. Disinformation public awareness campaigns were also discussed, and the Icelandic Media Commission's awareness campaign was presented.

9.
Recommendations

9.1 Timely and reliable dissemination of information by the government is important

The working group believes that the government should consider learning from the experience gained in the dissemination of information within the civil protection system. Reference is made to the government's dissemination of information concerning the eruption of the volcano Eyjafjallajökull in 2010, in addition to the experience gained in disseminating information through the epidemiological and civil protection authorities regarding COVID-19. Once the epidemic is over, the government will review the response and the experience we have gained. We can then examine specifically what was successful and what could have been done better. Such a review should examine the government's dissemination of information specifically and what lessons can be learned from it in a long-term perspective that could be used to advantage in other demanding tasks faced by the government.

9.2 Confirmation of criteria in the rules followed by technology companies to combat information disorder

At the initiative of the EU, international technology companies (Facebook, Google, Twitter, Mozilla, Microsoft and TikTok) signed a Code of Practice on Disinformation with the EU, together with advertisers and advertising agencies, in which the parties recognise their important role in addressing the societal challenges that come with information disorder and are committed to combating it. This is the first time that international technology companies have committed themselves to establishing a code of practice to prevent the spread of false or misleading information and fake news in European states.

The Code includes the following: "The Signatories recognise and agree with the Commission's conclusions that the exposure of citizens to large scale Disinformation, including misleading or outright false information, is a major challenge for Europe. Our open democratic societies depend on public debates that allow well-informed citizens to express their will through free and fair political processes." It also states: "As the Commission repeatedly acknowledges in the Communication, the Signatories are mindful of the fundamental right to freedom of expression and to an open Internet, and the delicate balance which any efforts to limit the spread and impact of otherwise lawful content must strike."

The origin of this Code of Practice can be traced to the fact that elections to the European Parliament took place in May 2019, and the European Commission considered it important to ensure that the technology companies set certain rules to combat fake news in the run-up to the elections. In the Code of Practice, the companies undertook, among other things, to work on the following:

- monitor the purchasing of advertisements more clearly in order to prevent the distribution of advertisements with incorrect and misleading information;

- preventing parties from profiting from the distribution of fake news;

- increasing transparency in the purchase of advertisements to ensure that users know where they come from;

- giving users the opportunity to see why they are in advertisers' target group and giving users access to specific ads related to politics and social issues in a centralised, open database;

- closing fake user accounts and preventing bots from spreading large-scale false and misleading information in member states;

- using technology to prioritise reliable and professionally processed information in news outlets and in the search engine results of users;

- reduce the prominence of false and misleading information;

- increasing users' access to a variety of news, where different points of view are expressed;

- making it easier for users to complain about incorrect and misleading messages;

- providing researchers and others with access to information to facilitate research on the extent of information disorder.

The Code of Practice states that it applies to the European Economic Area (EEA). Despite this statement that the actions are to include all states of the EEA, specific measures, e.g. actions to counter COVID-19 information disorder, have been limited to EU Member States. On Facebook, for example, there was an awareness campaign to encourage users to think about incorrect and misleading information on COVID-19. The campaign was launched only in the states of the EU and not in the entire EEA, as stated in the declaration.

European media committees have worked closely on the basis of the Code of Practice against information disorder in connection with COVID-19 through the European Regulators Group Group for Audiovisual Media Services (ERGA). An action group was set up, which among other things exchanges information on the development of information disorder in individual states and what impact the economic situation has had on the continent's media. Information was collected on Member States' best practices in combating incorrect and misleading information on COVID-19. The importance of the news media in combating incorrect and misleading information about COVID-19 was emphasised. Information was compiled on how the technology companies which have signed the Code of Practice have been combating information disorder in connection with COVID-19.

It is important that technology companies' commitments to combat information disorder is also respected in the case of Iceland, in light of the fact that some 95% of Icelanders use social media, a proportion which is very high compared to other countries. In addition, Icelanders have most commonly seen incorrect or misleading information about COVID-19 on social media, as described in Section 6.

9.3. **Co-ordinated government strategy on media literacy for all age groups**

Despite the fact that children and young people proportionally make the greatest use of various social media, users in older age groups are not far behind. All levels of society and age groups need to be media literate. The need for knowledge and skills applies to the entire population, which is why it is not enough to focus only on children and young people and leave others behind.

Good research and knowledge of news media, media use, the media market and the value of new media are prerequisites to be able to define and follow a strategy. Targeted teaching of media literacy can be linked to the school curriculum, but it is also important to establish teaching of media literacy in other age groups, not least in the oldest age group, as research shows that its skills in this field need to be increased. There is a need to increase knowledge of the issue and promote continuing education for teachers and instructors in media literacy.

Media literacy should not be limited to mastering the latest technology and tools; the aim should be for people to learn to analyse and effectively evaluate information and content in today's media. That is why it is important that news media outlets and other media work to promote media literacy in collaboration with the government and other stakeholders, and closely monitor what neighbouring countries have been doing.

For this to be possible, the government needs to establish a coherent media literacy strategy that includes all groups in society. There is also a need to define areas of responsibility and strengthen networking among parties working to promote media literacy in the general public through different fora.

9.4 **Analytical capacity, research and reform**

There is nothing new about people deliberately, due to misunderstanding or through ignorance, making incorrect statements in public debate. This is part of active discussion in a democratic society.

Digital and internet technology and social media have opened up new possibilities for open public debate, which also leads to more systematic abuse than was previously possible. It is possible to mass-produce untruths and deception on a grand scale, while at the same time tailoring them to different target groups and even individuals. Questions then arise as to whether this should be responded to and who should have that role. It is not self-evident that this is the role of government. But when extensive and targeted actions involve exploiting fake user accounts (in the name of artificial individuals) and bots to influence public discourse, it can threaten the cohesion and social structure of nations and the democracy of individual states. It then becomes an open question whether and under what circumstances governments should respond. The answers are not simple, because while attackers have free hands and will stop at nothing, governments must respect various basic values and rights in society, as well as considering where the limits of government intervention lie. What governments can do, however, is

"Digital and internet technology and social media have opened up new possibilities for open public debate, which also leads to more systematic abuse than was previously possible."
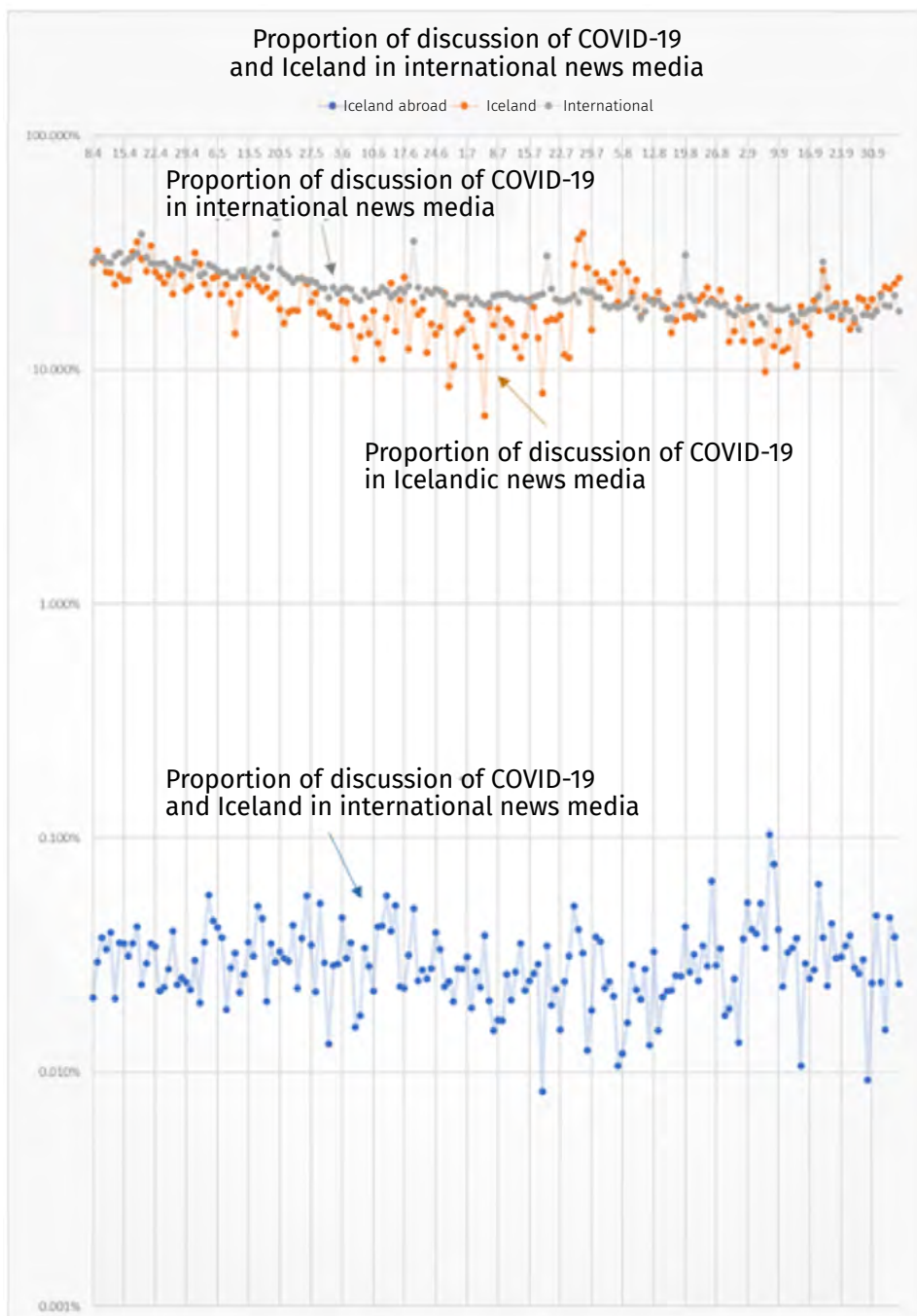
promote increased knowledge of the technologies of abuse and ways to detect such abuse. Various methods have been tried. Some will be mentioned here, but the list can never be exhaustive because this is an ongoing race between those who develop technologies for abuse and those who develop technologies for defence. Furthermore, in a democracy, respect must be given to considerations of personal privacy and citizens' freedom of expression. This includes the freedom of individuals to express their views, of whatever sort.

Various means have been developed to quantify discussion in traditional media and social media. This does not look at what each media outlet or individual says, but what the general tone of the discussion is. In a joint project of the American universities MIT and Harvard,[20] content from online public media has been aggregated, the lexis analysed and categorised to enable a variety of comparisons of discourse in different states. This makes it possible, for example, to look at the development of coverage over time between states and its distribution. With this method, it is possible to identify whether there is a systematic defamation campaign, for example by a particular cluster of certain media or a foreign country. Content from Icelandic news media was added to the systematic global collection of news media content within the MIT and Harvard project from last spring onwards and is now available for analysis along with news media content from other countries.

The following is a simple example of how this analytical technique can be used to compare COVID-19 coverage in Icelandic and foreign news media from spring (8 April) to autumn (6 October) and examine whether there are signs of an organised information disorder campaign. In a specific collection of international news media in the database there were almost 4 million news items (3,897,177) mentioning COVID-19. In a specific collection of Icelandic news media, there were almost 10 thousand (9,849) news items during the same period where COVID-19 was mentioned. A chart can be produced, showing how many of these news items appeared each day. However, the proportion of news items each day in which COVID-19 is mentioned gives a clearer picture, because the amount of news can vary in days and periods, e.g. it is less in the summer. That also makes it easier to compare the relative coverage of COVID-19 between countries, regardless of the size of the population represented.

The accompanying chart shows the change in the proportion of COVID-19 news items in international news on the one hand (grey line), and in Iceland on the other hand (reddish line). The grey line is much steadier because the quantity of news items is much greater and random fluctuations in the number of news items concerning COVID-19 are therefore much smaller. As the figure shows, in general, the proportion has fallen steadily from around 30% this spring to around 20% this autumn, reflecting the fact that COVID-19 has become an integral part of people's everyday life and may no longer be newsworthy. Icelandic data show a rise at the end of July when the second wave of the epidemic began and a second rise in September when the third wave began. No unexplained peaks are visible that could be an indication of a disinformation campaign. No signs of such a campaign are visible either using a word cloud (where the most common words of a discussion are shown graphically and the size of each word is determined by how often it occurs) for the period as

---

[20] https://mediacloud.org

Proportion of discussion of COVID-19
and Iceland in international news media

a whole or individual parts of it. Images of the relationships in the use of the most common words show the same result. However, it is interesting to note that the second wave of the epidemic comes when the discussion in society has become significantly less than in the international comparison and the same happens when the third wave comes after the discussion here has again become noticeably more limited than the international ones. This raises the question of whether more limited discussion reflects increased carelessness, which in each case forms part of the reason for the subsequent new wave, and whether the relative decline in media discourse can be used as an indication of society's declining ability to cope with a new wave and of an increased risk of a new wave starting.

At the bottom of the picture is media coverage of the coronavirus and COVID-19 in Iceland as a percentage of all news in the international news collection. There were a total of 5,555 such news items during the period. The highest peak is on 7 September and a word analysis and more detailed examination of the news items shows that many discussions concerned two footballers from the UK who disregarded quarantine regulations in Iceland. An examination of which news media covered Iceland and COVID-19 during the period reveals that the distribution is fairly even and no single medium (or media cluster) can be seen to dominate the discussion. Based on this information, there is no reason to believe that COVID-19 was misused in a propaganda campaign against Iceland.

A tried and true technique aimed at influencing other societies is not to try to exert influence directly (societies will often defend themselves against foreign influences) but rather try to have an effect on domestic influencers. Online technology makes it possible to find and analyse influencers much better than before. Individually targeted flattery, compliments and selected information, can often have a significant impact on influencers, without the person in question understanding what is going on. There is little that can be done about this. Tweets on Twitter are often popular with influencers to spread the word to their followers. Statistical network analysis of the noise of a discussion on Twitter makes it easy to find out where the flow of the discussion is, including who are influencers and what their pattern of followers looks like.

Although governments must always pay attention to personal privacy considerations, if they decide to apply this type of analysis, it is important to keep in mind that this technology is very easy to apply, both by foreign and domestic parties. Furthermore, it is easy for everyone to view the tweet history of individual parties and identify each user that is being targeted. Various methods have been described in scientific articles for attempting to discover fake Twitter accounts (for example, created by computers or who are employees of foreign troll factories). Among the methods used are analysis of word usage and register in tweets. For example, if the vocabulary and language usage in tweets from a certain English-speaking region is unnatural. This could appear, e.g. if the word order (even if the words are all correct) does not fit English language norms but reflects the language norm of a foreign tweeter from a troll factory. The problem here is that once a scientific article has been published pointing out such language use mistakes by troll factories, the factory concerned will ensure that such mistakes are not repeated. Therefore, the fight against troll factories can improve their ability and this race to keep ahead online continues.

Another method that has been used is to search for users who only appear to re-tweet a certain type of tweet and are in fact mechanical bots. But the more sophisticated the search criteria for artificial users become, the more diverse these users become to escape the search criteria. Twitter and Facebook have already made efforts to remove artificial users from their systems, but the fight continues.

Although there is no reason to believe that abusive technologies for social and news media discourse have been developed in Iceland, it is important to strengthen basic knowledge of their characteristics and of protection against them. It should be borne in mind that both states and private enterprises apply much more advanced analytical techniques to public debate in the international arena than is described here. Their use to map the Icelandic debate as well cannot be excluded. Without

knowledge of abusive and analytical technologies, the society is ill-equipped to defend against this type of abuse. At present, no party in the administrative system in Iceland has responsibility for identifying abusive technology in social or news media discourse with a view to responding appropriately should the welfare and health of Icelanders be jeopardised through deliberately dissemination of incorrect or misleading information. This is not to suggest that the Icelandic government should regularly apply analytical methods to media discussions, as has been described here.

In addition to technical factors, it is important to study the dissemination of information and examine the extent of false and misleading information by asking the public in anonymous representative surveys. Regular surveys, such as those the group has had conducted, should be a fixed aspect of monitoring the extent of information disorder in Iceland and public trust in the government and information outlets.

Through international co-operation, the Icelandic government has access to information on how incorrect and misleading information is used, in the estimation of our partner countries, to an increasing extent to undermine trust and the democratic values of the states concerned. In view of this development, there seems to be grounds for an overall examination of whether improvements are needed in this country, especially in terms of knowledge and response capacity. In this context, the role of individual institutions and ministries could be examined and co-operation on analysing abusive technology in public or news media discourse increased within the current legal framework, and whether there is a need to review existing acts and regulations in this area.

9.5 Regular surveys on information dissemination concerning COVID-19

The results of the surveys arranged by the working group in collaboration with the research company Maskína on trust in information and the dissemination of information about COVID-19 in the first and second wave of the epidemic in Iceland provide a good overview of the dissemination of information on the disease, trust in information providers and the misleading and incorrect information in circulation (in the opinion of those persons taking part in the surveys). As previously mentioned, the two surveys took into consideration similar surveys conducted abroad, including in other Nordic countries, the UK, the US, Germany and Spain. Details of the results are given in Section 6.

Health authorities have had to change their focus and message to the public in the light of new knowledge about the nature of the corona virus and COVID-19. The provision of information in connection with the epidemic also needs to take into account the fact that it comprises a persistent public health situation. The emphasis in information dissemination is under constant review and therefore it is important to map out regularly how information reaches the public, as was done with the surveys during the first and second wave of the epidemic in Iceland.

The working group believes that such surveys should be repeated regularly while the COVID-19 epidemic is ongoing. The results can be compared to similar surveys conducted abroad.