Chapter 9

Title of the chapter:

The good, the bad and the ugly: Learning lessons from the UK's COVID-19 communication

Authors: Ralph Tench[1] and Gemma Bridge[2]

Author affiliations:

1. Ralph Tench**,** Leeds Beckett University
2. Gemma Bridge, Queen Mary University London

Author bios:

Professor Ralph Tench is the Director of Research for Leeds Business School and the outgoing elected President for the European Public Relations Research and Education Association (EUPRERA). His research focuses on communication for social impact and organisational strategy, behaviour and performance.

Gemma Bridge PhD., is an independent transdisciplinary researcher based in Leeds, UK. She has held research officer and fellow roles at Leeds Beckett University, Queen Mary University of London and the University of Leeds. Her current work spans the fields of communication, public and oral health, food security and active travel.

ORCID ID's:

1. Ralph Tench: 0000-0001-7760-2606
2. Gemma Bridge: 0000-0001-7441-9849

Word count of the chapter: 4049 (excluding figures, references and abstract)

Number of figures: 2

Number of infographics: 2

Abstract

Effective and timely communication and leadership are crucial to the successful management of a pandemic. As such, messaging by national governments can play a critical role in limiting the spread of disease. To assess the UK government's communication management of the COVID-19 crisis, surveys were carried out at two time points. The first survey was delivered during the initial UK national lockdown (March – April 2020), and the second in February 2021, during the UK's third lockdown.

The surveys explored the most used channels for information receipt and searching, the most credible sources of information, the types of messages received and remembered, and the effectiveness of the messages. Findings revealed a synchronous use of multiple media and platforms in line with channel complementarity theory and supporting research that suggests there is an increase in media consumption during emergencies such as the COVID-19 pandemic. Online sources of information were particularly important, reflecting a growing reliance on the internet. Despite the high consumption of information, respondents reported low trust in media, and considered government communication untrustworthy, unreliable, confusing and a cause of social alarm.

The research provides novel insights into where the public receive and search for information, which sources of information are used, which communicators are perceived to be credible, the messages that have been received and remembered, and the overall effectiveness of the UK government's strategic communication management of the crisis. The research also highlights what the public think could have been done differently. Such findings could be of relevance to communicators wanting insights for improvement and more effective future management of communication in similar global health crises.

Introduction: COVID-19 in the UK

The COVID-19 pandemic has had an enormous impact globally, affecting economies and societies as a result of the health impacts of the virus itself, and also the policy decisions made amidst uncertainty (Smith *et al*. 2020). Attempts to control the spread of the virus have had to be carefully managed by national governments against negative impacts on economies and public freedoms (Wright *et al*. 2021). However, the effectiveness of such actions, assessed in terms of infection rates and public opinion, has varied. For instance, consider the variation in disease burden between New Zealand, where disease burden was low and the country was able to achieve COVID-19 elimination (Jefferies *et al.* 2020), against that of the United Kingdom, which has been one of the countries hardest hit by COVID-19, as measured by infection rates, deaths and lost economic production (Worldometer 2021).

Effective and timely communication and leadership are central to the successful management of the COVID-19 pandemic, playing an important role in the complex relationship between scientific knowledge and individuals' beliefs and behaviours. In this vein, it could be argued that messaging about the COVID-19 outbreak by national governments could have played, and will continue to play, a critical role in limiting the spread of disease. However, attempts to inform and educate the public about COVID-19, and the effective prevention measures that should be followed, can be impacted by the volume of information available, and the prevalence of misinformation, especially online. This is because we live in a world of information overload, whereby information is shared across multiple platforms, by numerous people and organisations, and there are multiple interpretations of the same information (Bettis-Outland 2012), ensuring the information that the public receives is true, complete and accurate is a challenge (Wiesenberg and Tench 2020). It is also relevant to consider other factors that can affect compliance with information, such as trust and confidence in the communicator (Spiegelhalter 2017, Turcotte *et al.* 2015).

To assess the UK government's communication management of the COVID-19 crisis, and the public's perceptions of this communication and the communications from other platforms and

sources, two online surveys were developed. In this chapter, we discuss the results of both surveys. We also discuss implications of the research and highlight how communication professionals could adapt to become more effective communicators when sharing information related to the COVID-19 pandemic, and future health crises.

Experiencing COVID-19 in the UK

On January 23rd 2020, the Foreign and Commonwealth Office in the UK advised against all but essential travel to the city of Wuhan in China, which was the original epicentre of the COVID-19 outbreak, which was extended to the rest of mainland China by January 29th (Gov.UK 2020). On January 31st, the first two cases of COVID-19 were confirmed in the UK (BBC News 2020a), and on February 28th, the first British death from COVID-19 was confirmed (Weaver 2020). By March 2nd, the number of cases had jumped to 36, so the government held meetings to discuss preparations and responses to the virus (BBC News 2020c). On March 16th, Prime Minister Boris Johnson advised everyone in the UK against non-essential travel and contact with others. He also advised people with certain health conditions to self-isolate (BBC News 2020b). To curb the number of cases and deaths from COVID-19, on March 23rd, Boris Johnson announced a national "lockdown" with new strict "stay at home" rules in the UK (Legislation.gov.uk 2020). The lockdown was accompanied by the closure of all non-essential shops and services. Restrictions were eased in May 2020, and a tiered system was put in place. However, later waves of COVID-19 infection meant that a further two national lockdowns were enforced, first in November 2020 and then in January 2021. Despite the range of restrictions in the UK, trend data indicates that by May 9th 2021, there had been 4.43 million cases of COVID-19 and 128,000 deaths (Our World in Data 2021). In addition, the COVID-19 pandemic resulted in wide-ranging impacts on the country as a whole, affecting the economy, education, physical and mental healthcare. As a result of these wide ranging effects, their long-lasting impact, and the likelihood of other similar crises in the future, it is essential to explore how the public respond to and perceive communication during the pandemic.

COVID-19 communication experience and insights from the UK

As the COVID-19 pandemic spread in early 2020, media coverage and social media discussion increased significantly. Communications professionals faced a challenge in terms of communicating important information effectively, whilst also dealing with the rapidly changing nature of the crisis. There were also challenges for communicators in terms of navigating the volume of mis-information, and ensuring public behavioural responses were in line with scientific advice. To explore communications about the COVID-19 pandemic in the UK and how they were perceived by the UK public, two surveys were conducted. These surveys, which were carried out at two time points, focussed on the most used channels for information receipt and searching, the most credible sources of information, the types of messages received and remembered, and the effectiveness of the messages.

The first survey was delivered during the first UK national lockdown in March – April 2020. Recruitment was via convenience and snowball sampling using the researchers' personal and work networks and social media (Twitter and Facebook). The survey included 20 questions and was shared during the first 3 weeks of lockdown. To increase response rates, a post on Facebook, with a link to the survey, was promoted for 5 days using £100 credit. The survey was completed by 609 adults, 16 years or over, living in the UK. Most of the participants (n= 290, 48.1%) were 40-60 years old, female (n= 373, 62.27%) and educated to bachelor's degree or equivalent and above (n= 308, 51%), not currently employed (e.g. unemployed/ retired) (n= 253, 41.89%), white (n= 576, 95.36%) and live in England (n= 581, 96.18%).

The second survey was run in February 2021, as the country was in the depths of the third national lockdown. Due to the availability of additional funding and the intention to explore perspectives from a more diverse population, recruitment for the second survey was caried out via Prolific, an online participant pool. The survey was completed by a demographically varied population of 422 adults across England. Most respondents were female (n=200, 63%) and white (n=346, 82%). Of those respondents that provided their age, 23% (n=97) were aged 16-24, 40% (n=171) were aged 25-39, 33% (n=138) were aged 40-60 and 3% (n=14) were over 61 years. Most respondents work full time (n=187, 44%). Of the remaining respondents, many were students (n=63,

15%) or worked part time (n=58, 14%). 7% (n=30) were unemployed, 7% (n=31) were furloughed and 2% (n=10) were retired. In terms of academic qualifications, 7 (1.5%) respondents reported that they had no academic qualifications, 3% (n=14) stated that they had less than 5 General Certificates of Secondary Education (GCSE's) or equivalent, with a similar proportion of respondents holding a doctorate degree or equivalent (n=13, 3%). 8% (n=35) held 5 GCSE's or equivalent, but most respondents held 2 or more General Certificate of Education Advanced Level (A Levels) or equivalent level 3 certifications (n=126, 30%) or had gained a bachelor's degree or equivalent (n=168, 40%). Most respondents reported that they were living in a household as a couple with children (n=149, 35%), with a substantial proportion of the remaining respondents living in a household as part of a couple without children (n=96, 28%).

Use of multiple media and platforms

Previous research indicates that audiences have drifted away from traditional media platforms for information retrieval, especially related to health (Anderson 2017, Stroud 2011), instead retrieving information from online news sources (Cuan-Baltazar *et al.* 2020). This pattern was evident during previous national and global health crises, such as Ebola or Zika infections. Findings from both surveys discussed here, reveal a synchronous use of multiple media and platforms throughout the COVID-19 pandemic. These channels included social media, television, radio and printed newspapers. In the first survey, TV was most frequently used as a platform to receive information about COVID-19 (n= 386, 66%), but Facebook and radio were also frequently or very frequently used (n=364, 62.9% and n=237, 43.6% respectively). In the second survey, TV and radio were again an important source of information, but Twitter was mentioned more frequently than Facebook as a source of information.

The use of multiple sources of information supports recent research that identified an increase in media consumption during the COVID-19 pandemic (Hernández-García and Giménez-Júlvez 2020). The data from the two surveys also indicated that online sources of information, such as websites, blogs and social media, were particularly important platforms for the public, reflecting a growing reliance on the internet. In support, Nielson *et al.* (2020b) found that news use increased

throughout the pandemic across a range of countries, and that online platforms such as social media and messaging applications were particularly important sources of information. However, this trend towards preferring online news sites was also noted prior to the pandemic, when research indicated that they were the main source of news for over 40% of people in the UK (Statista 2021).

Paying attention to the news

In survey 2, respondents were asked about the extent to which they paid attention to the news throughout the COVID-19 pandemic. Most respondents (n=257/422, 60.9%) paid attention to local news to a great extent, with many also stating that they had paid attention to the regional news to a great extent (n=148/422, 35%). Most also paid attention to the national news to a great extent (n=257/422, 60.9%), whilst over half of respondents (n=224/422, 53%) also reported that they "somewhat paid attention" to international news on the COVID-19 pandemic, but fewer paid attention to a great extent (n=99/422, 23%). Also in survey 2, respondents were asked about the extent to which they watched the news. Results indicated that this changed throughout the pandemic. During the first quarter of 2020 (January to March), most respondents (n=183/422, 43%) followed the news to "a great extent", with only 3% (n=15) not following the news at all. This trend continued into the second quarter of 2020 (April to June), with over half of respondents (n=213/422, 50.5%) following the news to a great extent. In the fourth quarter of 2020, and the first quarter of 2021, most respondents were again following the news to a good or great extent (n=236/422, 55.6% and n=243/422, 57.6% respectively).

The pattern of news seeking identified in the second survey may relate to the extent to which respondents were concerned about the pandemic at different time points. Findings suggest that in the first quarter of 2020, just over a third of respondents (n=152, 36%) were "concerned to a great extent" about the COVID-19 pandemic. This proportion increased to 54% (n=229/422) by the second quarter of 2020. By the third quarter of 2020, concern appeared to have decreased, with 41.4% (n=175/422) somewhat concerned, compared to 30% who were concerned to a great extent. Concern peaked in the first quarter of 2021, when 54% (n=226/422) of respondents stated that they were concerned to a great extent.

Infodemic - Perceived accuracy and timeliness of information

Within weeks of the disease outbreak, COVID-19 became a trending topic worldwide, creating an "infodemic" (Cuan-Baltazar *et al*. 2020, Rothkopf 2003, World Health Organization 2020). Due to the volume of information online, not all information shared is accurate, true *(*Oyeyemi *et al.* 2014*,* Venkatraman *et al*. 2016) or trusted (European Commission 2018), and much does not adhere to official guidance, such as that by the World Health Organization (WHO) (Hernández-García and Giménez-Júlvez 2020). People tend not to critically assess information but still use that information to make important decisions regarding their lives and health (Cuan-Baltazar *et al.* 2020). In relation to the COVID-19 outbreak, misinformation has been associated with stockpiling, buying unnecessary medical supplies and not adhering to official guidance (Cuan-Baltazar *et al*. 2020, Oxford Internet Institute 2018). Whilst misinformation can be shared offline too, traditionally healthcare professionals were the primary source of health information, serving as gatekeepers of information that their publics receive, helping to reduce the sharing of inaccurate data (Hesse *et al.* 2005).

When levels of perceived accuracy of information were explored in survey 2, it was revealed that perceived accuracy was significantly different between media outlets. Figure 9.1 (Perceived accuracy and timeliness of information shared across media outlets) summarises these differences and shows that differences were found between broadcast news outlets, websites and social media (p = <0.0001), with broadcast being perceived as more accurate than websites, and both broadcast media and websites being more accurate than social media. Perceived timeliness of information was also significantly different across these three media outlets with broadcast media being perceived as the timeliest source of information, followed by social media and then websites (p = <0.0001).

<INSERT FIGURE 9.1 HERE>

Figure 9.1 Perceived accuracy and timeliness of information shared across media outlets

(Source: Authors)

Lack of trust in information

Trust is a key motivator for individuals preferring one source of information over the other (Glik 2007, Rains 2007, Zerfass, Wiesenberg *et al.* 2019). Despite the high consumption of information from online sources, respondents reported low trust in this form of information from online platforms. In survey 1, most respondents reported no trust in information shared by the media (n=404, 69.3%). Findings from survey 2 show that there was a significant difference in perceived trustworthiness in the information shared by broadcast media, websites and social media (p=<0.0001), with broadcast media trusted more than both websites and social media. The lack of trust in online sources of information supports previous research (Glik 2007, Rains 2007, Zerfass, Verčič *et al.* 2019). It also reflects the downward trend in trust in traditional mass media (European Commission 2020, Turcotte *et al.* 2015), which, it has been suggested, has led to the public becoming less attentive to mainstream news (Gilens *et al.* 2007, Ladd 2011). Findings from survey 2 also indicate that trust in information shared by both politicians and social influencers was low, but politicians were better trusted than social influencers (p=<0.0001). A similar lack of trust in influencers was seen in survey 1, as respondents reported to have had the lowest trust in information shared by non-health influencers (n=545, 95.3% (no trust)). The respondents in both surveys also had low levels of trust in the information shared by government civil servants, and this trust was significantly lower than that in public health organisations.

In terms of government communication, trust in the messages shared have been deteriorating across the world (OECD 2015, Stokes 2020). Trust in the UK government during the COVID-19 pandemic has declined further still with polls suggesting that over 30% of the population do not trust the government's management of the crisis (Patel 2020). In a similar vein, in both surveys, many respondents reported that government communication was untrustworthy, unreliable, confusing and a cause of social alarm. In survey 1, most respondents reported no trust (n=288, 48.9%) in government communications. When explored by education level, a significant difference was found between those with no education and those with a bachelor's degree (p= 0.03), as well as between those with 5

GCSE's or a bachelor's (p= .001), and those with a master's degree or doctorate (p= 0.006), with those with fewer qualifications reporting greater trust.

When explored by age groups in survey 2, all age groups were just as likely to state that government messages had been unclear and insufficient, but there was a significant difference in the perceived clarity between 16-24 year olds and those aged 40-60, with the older age group being more likely to perceive the information as being insufficient and unclear (see Figure 9.2, Perceived clarity of information shared during the COVID-19 pandemic). Similarly, in survey 1 a significant difference was found in terms of perceived clarity between age groups, with those aged 40 to 60 more likely to consider government communication to be clear, than those over 61 ($p = <0.01$). Such findings concerning government communication of key information should be central to how people anticipate, understand, prepare for, and respond to an emergency such as the COVID-19 pandemic (Enright 2020, Wang *et al.* 2020).

Despite the lack of trust and perceived reliability of government messages, key messages about effective behavioural responses to COVID-19 such as handwashing frequently, were retained by most respondents in both surveys. Moreover, despite the lack of trust in the communication and the volume of information received from social media, most of the false messages appear to have been recognised and disregarded. For instance, in survey 2 when respondents were asked if it is true that COVID-19 only affects the elderly and those with pre-existing health conditions, most (n=395/449, 88%) correctly disagreed. Similarly, when asked if they had to call 999 (the number for the emergency services in the UK) to receive a test for COVID-19, most (n=410/434, 94.5%) also correctly disagreed.

<INSERT FIGURE 9.2 HERE>

Figure 9.2 Perceived clarity of information shared during the COVID-19 pandemic

(Source: Authors)

Survey observations and findings from the UK

During a public health crisis, such as the global COVID-19 pandemic, effectively sharing evidence informed, accurate communication is important in ensuring that the public are equipped with information about the virus itself and how to promote individual and societal health. Two surveys were conducted, the first at the start of the pandemic and the second in the third national lockdown. The surveys explored COVID-19 communications in the UK.

Respondents used several sources of information during the COVID-19 pandemic. This finding is in line with complementarity theory which states information seekers utilise multiple sources when acquiring information to fulfil that information need (Dutta-Bergman 2004). It also corroborates previous research that indicates that people consult multiple sources, including television, radio and social media when searching for health information (Hjarvard 2013, McCaughan and McKenna 2007, Rains and Ruppel 2016), and use a range of sources throughout the COVID-19 pandemic (Nielsen *et al.* 2020a). Previous research suggests that different platforms are used to varying degrees by those in different demographic groups (Lorence and Park 2007). For instance, previous data suggests that older adults are more likely to receive information from TV, whilst younger people are more likely to use online platforms such as social media (Oxford University 2017). However, in our surveys, no significant differences in information source preference was found between demographic groups in the surveys. This may reflect societal changes in technology access over the course of the COVID-19 pandemic or may reflect the changes in media access that have occurred over recent years.

Trust is a key motivator for preferring one source of information over the other (Rains 2007). It is also an important factor in terms of how likely audiences are to attend to and adhere to messages that are shared. Most respondents reported no trust in information shared by the media which reflects existing literature (Gilens *et al.* 2007). The findings of this survey suggest little difference between demographic groups, which contrasts with previous research (Stroud and Lee 2013), but may relate to the specific context of the COVID-19 pandemic and its rapidly changing nature and uncertainty.

The survey results also highlight that most respondents have little trust in government communications relating to COVID-19. This supports research which reveals declining trust in the government and reflects the polls carried out by UK national newspapers of public trust (OECD 2015, Patel 2020, Stokes 2020). The lack of trust in government communication could be in part due to the volume of misinformation that exists, with previous studies revealing that misinformation can undermine trust in institutions (Pummerer *et al.* 2021). It is also possible that the government communicators lacked credibility, due to the misdemeanours that were reported in the media, with an important example being Dominic Cummings, The Prime Minister's chief adviser during the COVID-19 pandemic, who was seen near his parents' home in the north of England despite Downing Street saying he was self-isolating at home in London (Fancourt *et al.* 2020). The perceived credibility of communicators is important to consider since credibility plays an important role in behavioural responses (Spiegelhalter 2017, Turcotte *et al*. 2015).

Moreover, trust is crucial to how people respond to guidance, such as that related to COVID-19 vaccinations - a critical next step in fighting the COVID-19 disease (Loomba *et al.* 2021). As such, it is important to identify ways to reduce the prevalence of misinformation, especially online, and find effective methods to support the public in assessing what information is true and what is not. This is particularly important since previous research indicates that some sociodemographic groups are more severely impacted by exposure to misinformation than others, and this could have ramifications to public health outcomes.

Despite the lack of trust in government communications, most respondents have a good or average working knowledge about the pandemic and how to prevent spread, with no differences by education level, income or employment status. This finding differs from previous research which found that those with higher educational levels were better informed about the risks of a pandemic (Lin *et al*. 2014). This finding from the current survey may suggest that the communication during the COVID-19 pandemic has been delivered at appropriate health literacy levels. In support, most important messages appear to have been retained by the public such as the importance of key concepts

around COVID-19, including hand washing and physical distancing to keep people safe, which indicates that the delivery of essential and basic health messaging was successful.

Finally, survey findings indicate that the extent of the attention that has been paid to the news has ebbed and flowed over the course of the pandemic. This may reflect the changes in level of concern about the pandemic at different time points, with findings indicating that there was a relation between levels of concern and attention given to the news. This ebbing of attention may also reflect the extent to which the pandemic was discussed by government, as there were daily press briefings at the start of the pandemic, which slowed down as the urgency dissipated and were stopped when the first lockdown was lifted in the UK.

Take in infographic 8

Infographic 8. Learning lessons from the UK's COVID-19 communication

Takeaways, lessons learned, and future recommendations from the UK experience

COVID-19 has impacted millions of lives across the globe. Governments have responded to the pandemic with extensive restrictions on public movement and freedoms, which have helped to reduce cases and in turn, limit deaths from the virus. In addition to restrictions imposed by governments, limiting the negative impact of COVID-19 has relied on the public's awareness and acceptance of scientific knowledge, as this has impacted their beliefs and behaviours. However, communicators who have tried to inform and educate the public about COVID-19 and effective prevention measures have had to compete with huge amounts of information, and large volumes of persuasive misinformation, especially online.

The research discussed in this chapter revealed that people in the UK have access to and use many different sources of information about the COVID-19 pandemic, with a focus on information from online sources and TV. Although trust was low in the media and government communications,

most key messages, such as the importance of social distancing and hand washing, appear to have been retained, which signals a success of public health messaging and is a promising finding considering the importance of behavioural strategies to control the virus.

The findings presented in this chapter could be of relevance to communicators seeking insights for improvement and more effective future management of communication in similar global public health crises. Importantly, practitioners should look to ensure that messages are: 1) consistent, as this improves perceived legitimacy (Massey 2001); 2) clear and transparent, as this can improve public motivation and intention to adopt or maintain recommended self-protective actions (Vaughan and Tinker 2009); and 3) honest as the complete presentation of known and unknown factors can positively impact on people's knowledge, attitudes and beliefs, including trust in the way the government is handling the emergency (Lin *et al.* 2014). By doing so, communicators would be able to better ensure that public trust in the information shared is high. This would help to ensure that the public trust the information that they are given, ensuring that their willingness to comply with guidance is high, and that they are able to anticipate, understand, prepare for, and respond to an emergency such as the COVID-19 pandemic, supporting public health and societal wellbeing.

Bibliography

Anderson, K., 2017. *Beyond the Article: Frontiers of Editorial and Commercial Innovation.* [Online]. Oxford: Reuters Institute for the Study of Journalism. Available from: <https://reutersinstitute.politics.ox.ac.uk/sites/ default/files/2017-10/Beyond%20the%20Article%20-%20Frontiers%20of %20Editorial%20and%20Commercial%20Innovation.pdf.>.

BBC News, 2020a. Coronavirus: Two Cases Confirmed in UK. *BBC News* [Online], 31 January. Available from: <https://www.bbc.com/news/health-51325192> [Accessed 8 May 2021].

Bettis-Outland, H., 2012. Decision-Making's Impact on Organizational Learning and Information Overload. *Journal of Business Research*, 65 (6), pp. 814–820.

Coronavirus: PM Says Everyone Should Avoid Office, Pubs and Travelling, 2020b. *BBC News* [Online], 16 March. Available from: <https://www.bbc.com/news/uk-51917562> [Accessed 8 May 2021].

Coronavirus: Widespread Transmission in UK 'Highly Likely' , 2020c. *BBC News* [Online], 2 March. Available from: <https://www.bbc.com/news/uk-51700604> [Accessed 8 May 2021].

Cuan-Baltazar, J.Y. *et al*. 2020. Misinformation of COVID-19 on the Internet: Infodemiology Study. *JMIR Public Health and Surveillance* [Online], 6 (2) April. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7147328/> [Accessed 29 April 2020].

Dutta-Bergman, M.J., 2004. Complementarity in Consumption of News Types Across Traditional and New Media. *Journal of Broadcasting & Electronic Media*, 48 (1) March, pp. 41–60.

Enright, S., 2020. *Emergency Communications: Leading Communities through an Unforeseen Crisis | Local Government Association* [Online]. Local Government Association. Available from: <https://www.local.gov.uk/our-support/guidance-and-resources/comms-hub-communications-support/futurecomms-building-local-11> [Accessed 17 February 2021].

European Commission, 2018. *Public Opinion in the European Union* [Online]. Brussels, Belgium: Eurobarometer. Available from: <https://ec.europa.eu/commfrontoffice/publicopinion/index.cfm/Survey/index#p=1&instruments=standard&yearFrom=1974&yearTo=2006>.

European Commission, 2020. *Coronavirus: Parliament's Green Light for New Resources* [Online]. European Commission - European Commission. Available from: <https://ec.europa.eu/commission/presscorner/detail/en/IP_20_685> [Accessed 29 April 2020].

Fancourt, D., Steptoe, A. and Wright, L., 2020. The Cummings Effect: Politics, Trust, and Behaviours during the COVID-19 Pandemic. *The Lancet*, 396 (10249) August, pp. 464–465.

Gilens, M., Vavreck, L. and Cohen, M., 2007. The Mass Media and the Public's Assessments of Presidential Candidates, 1952–2000. *Journal of Politics*, 69 (4), pp. 1160–1175.

Glik, D.C., 2007. Risk Communication for Public Health Emergencies. *Annual Review of Public Health*, 28, pp. 33–54.

Gov.UK, 2020. *Foreign Office Advises against All but Essential Travel to Mainland China* [Online]. GOV.UK. Available from: <https://www.gov.uk/government/news/fco-advises-against-all-but-essential-travel-to-mainland-china> [Accessed 8 May 2021].

Hernández-García, I. and Giménez-Júlvez, T., 2020. Assessment of Health Information About COVID-19 Prevention on the Internet: Infodemiological Study. *JMIR Public Health and Surveillance* [Online], 6 (2) April. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7117090/> [Accessed 29 April 2020].

Hesse, B.W. *et al*. 2005. Trust and Sources of Health Information: The Impact of the Internet and Its Implications for Health Care Providers: Findings from the First Health Information National Trends Survey. *Archives of Internal Medicine*, 165 (22) December, pp. 2618–2624.

Hjarvard, S., 2013. *The Mediatization of Culture and Society* [Online]. Routledge. Available from: <https://www.routledge.com/The-Mediatization-of-Culture-and-Society/Hjarvard/p/book/9780415692373> [Accessed 2 April 2021].

Jefferies, S. *et al.* 2020. COVID-19 in New Zealand and the Impact of the National Response: A Descriptive Epidemiological Study. *The Lancet Public Health*, 5 (11) November, pp. e612–e623.

Ladd, J.M., 2011. *Why Americans Hate the Media and How It Matters* [Online]. Available from: <https://press.princeton.edu/books/paperback/9780691147864/why-americans-hate-the-media-and-how-it-matters> [Accessed 29 April 2020].

Legislation.gov.uk, 2020. *The Health Protection (Coronavirus, Restrictions) (England) Regulations 2020* [Online]. Legislation.gov.uk. Available from: <https://www.legislation.gov.uk/uksi/2020/350/contents/made/data.htm> [Accessed 8 May 2021].

Lin, L. et al. 2014. What Have We Learned about Communication Inequalities during the H1N1 Pandemic: A Systematic Review of the Literature. *BMC Public Health*, 14 (1) May, p. 484.

Loomba, S. *et al*. 2021. Measuring the Impact of COVID-19 Vaccine Misinformation on Vaccination Intent in the UK and USA. *Nature Human Behaviour*, 5 (3) March, pp. 337–348.

Lorence, D. and Park, H., 2007. Study of Education Disparities and Health Information Seeking Behavior. *Cyberpsychology & Behavior: The Impact of the Internet, Multimedia and Virtual Reality on Behavior and Society*, 10 (1) February, pp. 149–151.

Massey, J.E., 2001. Managing Organizational Legitimacy: Communication Strategies for Organizations in Crisis. *The Journal of Business Communication (1973)*, 38 (2) April, pp. 153–182.

McCaughan, E. and McKenna, H., 2007. Never-Ending Making Sense: Towards a Substantive Theory of the Information-Seeking Behaviour of Newly Diagnosed Cancer Patients. *Journal of Clinical Nursing*, 16 (11) November, pp. 2096–2104.

Nielsen, Fletcher, Newman, Brennen and Howard, 2020a. *Navigating the 'Infodemic': How People in Six Countries Access and Rate News and Information about Coronavirus* [Online]. Reuters Institute for the Study of Journalism. Available from: <https://reutersinstitute.politics.ox.ac.uk/infodemic-how-people-six-countries-access-and-rate-news-and-information-about-coronavirus> [Accessed 29 April 2020].

Nielsen, R. *et al*., 2020b. Navigating the 'Infodemic': How People in Six Countries Access and Rate News and Information about Coronavirus. *Reuters Institute for the Study of Journalism* [Online]. Available from: <https://reutersinstitute.politics.ox.ac.uk/infodemic-how-people-six-countries-access-and-rate-news-and-information-about-coronavirus> [Accessed 29 April 2020].

OECD, 2015. *Trust in Government - OECD* [Online]. OECD: Better policies for better lives. Available from: <https://www.oecd.org/gov/trust-in-government.htm> [Accessed 29 April 2020].

Our World in Data, 2021. *Coronavirus Pandemic (COVID-19) – the Data - Statistics and Research* [Online]. Our World in Data. Available from: <https://ourworldindata.org/coronavirus-data> [Accessed 9 May 2021].

Oxford Internet Institute, 2018. *The Computational Propaganda Project* [Online]. The Computational Propaganda Project. Available from: <https://comprop.oii.ox.ac.uk/> [Accessed 29 April 2020].

Oxford University, 2017. *Where Do People Get Their News? - Oxford University - Medium* [Online]. Medium. Available from: <https://medium.com/oxford-university/where-do-people-get-their-news-8e850a0dea03> [Accessed 29 April 2020].

Oyeyemi, S.O., Gabarron, E. and Wynn, R., 2014. Ebola, Twitter, and Misinformation: A Dangerous Combination? *BMJ (Clinical research ed.)*, 349 October, pp. 6178.

Patel, B., 2020. Trust in Government's Handling of Covid Crisis Plummets. *Daily Mail Online* [Online]. Available from: <https://www.dailymail.co.uk/news/article-8258029/Trust-governments-handling-covid-crisis-plummets.html> [Accessed 29 April 2020].

Pummerer, L *et al*., 2021. Conspiracy Theories and Their Societal Effects During the COVID-19 Pandemic. *Social psychological and personality science*. March, pp. 1-11. doi.org/10.1177/19485506211000217

Rains, S.A., 2007. Perceptions of Traditional Information Sources and Use of the World Wide Web to Seek Health Information: Findings from the Health Information National Trends Survey. *Journal of Health Communication*, 12 (7) November, pp. 667–680.

Rains, S.A. and Ruppel, E.K., 2016. Channel Complementarity Theory and the Health Information-Seeking Process: Further Investigating the Implications of Source Characteristic Complementarity. *Communication Research*, 43 (2) March, pp. 232–252.

Rothkopf, D., 2003. When the Buzz Bites Back. *Washington Post* [Online]. Available from: <http://www1.udel.edu/globalagenda/2004/student/readings/infodemic.html> [Accessed 29 April 2020].

Smith, G.D., Blastland, M. and Munafò, M., 2020. Covid-19's Known Unknowns. *BMJ*, 371 October, p. m3979.

Spiegelhalter, D., 2017. Risk and Uncertainty Communication. *Annual Review of Statistics and Its Application*, 4 (1), pp. 31–60.

Statista, 2021. *Main Sources of News in the UK* [Online]. Statista. Available from: <https://www.statista.com/statistics/1099758/main-sources-of-news-in-the-uk/> [Accessed 2 April 2021].

Stokes, K., 2020. The 2020 Edelman Trust Barometer report. [Online], 78. Available from: < https://www.edelman.com/trust/2020-trust-barometer> [Accessed 23 July 2021]

Stroud, N.J., and Lee, J.K., 2013. Perceptions of Cable News Credibility. *Mass Communication and Society* [Online], 16 (1). Available from: <https://www.tandfonline.com/doi/abs/10.1080/15205436.2011.646449> [Accessed 29 April 2020].

Stroud, N.J., 2011. *Niche News: The Politics of News Choice* [Online]. Oxford University Press. Available from: <https://www.oxfordscholarship.com/view/10.1093/acprof:oso/9780199755509.001.0001/acprof-9780199755509> [Accessed 29 April 2020].

Turcotte, J. *et al*. 2015. News Recommendations from Social Media Opinion Leaders: Effects on Media Trust and Information Seeking. *Journal of Computer-Mediated Communication*, 20 (5) September, pp. 520–535.

Vaughan, E. & Tinker, T. (2009) Effective Health Risk Communication About Pandemic Influenza for Vulnerable Populations. *American Journal of Public Health*, 99 (S2) October, pp. S324–S332.

Venkatraman, A. *et al* 2016. Zika Virus Misinformation on the Internet. *Travel Medicine and Infectious Disease*, 14 (4) August, pp. 421–422.

Wang, H. *et al*. 2020. Communicating in a Public Health Crisis. *The Lancet Digital Health*, 2 (10) October, p. e503.

Weaver, M., 2020. *First British Coronavirus Death Confirmed* [Online]. the Guardian. Available from: <http://www.theguardian.com/world/2020/feb/28/first-briton-dies-from-coronavirus-japanese-media-report-diamond-princess> [Accessed 8 May 2021].

WHO. 2020. *Munich Security Conference* [Online]. WHO. Available from: <https://www.who.int/dg/speeches/detail/munich-security-conference> [Accessed 29 April 2020].

Wiesenberg, M. and Tench, R., 2020. Deep Strategic Mediatization: Organizational Leaders' Knowledge and Usage of Social Bots in an Era of Disinformation. *International Journal of Information Management*, 51 April, p. 102042.

Worldometer, 2021. *UK Coronavirus Cases and Deaths* [Online]. Worldometer. Available from: <https://www.worldometers.info/coronavirus/country/uk/> [Accessed 8 April 2021].

Wright, L. *et al*. 2021. Public Opinion about the UK Government during COVID-19 and Implications for Public Health: A Topic Modelling Analysis of Open-Ended Survey Response Data. *medRxiv*, March, p. 2021.03.24.21254094.

Zerfass, A. *et al*., 2019. *European Communication Monitor 2019. Exploring Trust in the Profession, Transparency, Artificial Intelligence and New Content Strategies. Results of a Survey in 46 Countries.* Brussels, Belgium: EUPRERA/ EACD.

Zerfass, A. *et al*. 2019. Trust in Communicators 2019 Study: How the General Population Trusts … [Online]. Presented at: *2019*. Available from: <https://www.slideshare.net/communicationmonitor/trust-in-communicators-2019-study-how-the-general-population-trusts-journalists-public-relations-professionals-marketeers-and-other-communicators-a-comparative-study-in-germany-italy-and-the-united-kingdom> [Accessed 29 April 2020].